Sona Nanotech Inc.
Management Discussion and Analysis
Twelve-months ended October 31, 2021

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 year ended October 31, 2021 and 2020, 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 28, 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

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 and advanced biomedical applications. Sona's gold nanorod particles are uniquely manufactured without the use of CTAB (cetyltrimethylammonium), eliminating the toxicity risks associated 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, among other factors, 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, South 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. The Company recently renewed its lease with Innovacorp for space at the Technology Innovation Centre on Research Drive.

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 of 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 is a member of the international advisory committee for the Gold 2022 conference.

On July 8, 2020, the Company announced the appointment of David Regan as CEO, replacing Mr. Rowles, who 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.

In January 2022, Mr. Neil Fraser and Dr. Walter Strapps, Ph.D. were appointed to the Company's Board of Directors.

Mr. Fraser is president of Medtronic Canada, a subsidiary of the global healthcare technology leader. He is a member of the University of British Columbia's School of Biomedical Engineering's Industry Advisory Committee and a member of the health policy council of the C.D. Howe Institute, as well as a past chair of Medtech Canada and was a member of Health Canada's Advisory Panel on Health Innovation chaired by Dr. David Naylor. He holds an MBA from the University of Western Ontario and a B.A.Sc. in Chemical Engineering from UBC.

Dr. Strapps was most recently Chief Scientific Officer of Gemini Therapeutics, a NASDAQ-listed biotech company. Prior to that role, Dr. Strapps led Discovery at Intellia Therapeutics, the first CRISPR-Cas9 company to demonstrate in vivo gene editing. Dr. Strapps has worked in RNA therapeutics using chemically modified nucleotides at Merck & Co., Inc. He holds a Ph.D., M.Phil. and M.A. degrees from Columbia University and a BSc in Biology from McGill University.

BUSINESS OBJECTIVE

Sona Powered Rapid Test Development Program

Sona's proprietary gold nanorod ("GNRs") technology 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 carried 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 can move though lateral flow test membranes at a faster pace than some other particle 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.
- Sona GNRs are manufactured without the use of CTAB, a known toxin, that is typically used in GNR production. The absence of CTAB in Sona's proprietary manufacturing process may confer on Sona GNR's an advantage over other GNR in terms of their biocompatibility which may be important for various developing in vivo medical applications of GNRs.

Sona leverages on its core GNR manufacturing technology, scientific experience, and laboratory asset to focus on two strategic priorities for its business: the development of rapid diagnostic tests and biologic reagents, and the advancement of its GNR intellectual property towards important medical *in vivo* applications.

For its GNR IP advancement strategic priority, Sona is undertaking an R&D program to enhance its understanding of its proprietary biocompatible, GNR manufacturing technology with the goal of identifying the most promising advanced biomedical applications for it to pursue. To accomplish this, Sona plans to partner with leaders in the bioengineering and nanotechnology fields to conduct a series of experiments and studies to better understand the effects of using its GNRs in medical therapies to gain insights into which would be best to pursue.

This is an important priority given that Sona's biocompatible GNRs address the primary concern in the development and adoption of medical therapies involving the use of GNRs within the body, or 'in vivo'. That concern is for the toxicity associated with the preparation of other GNRs, and potential negative health impacts. The manufacture of

Sona's GNRs, meanwhile, uniquely does not involve the use of CTAB (cetrimonium bromide), a substance well-known to be toxic. Continuing to strengthen Sona's IP is a key element in its ambition for the leadership position for its GNRs for *in vivo* medical applications.

Management continues to guide the development of rapid diagnostic tests and advanced discussions with potential partners for the development and commercialization of rapid tests, as well as for R&D associated with the Company's GNR manufacturing technology, scientific experience, and laboratory asset.

In November 2021, the Company launched a new research program to explore the leading attributes of its unique, proprietary gold nanorod technology together with leading experts in the field of bioengineering. The Company has entered a collaboration with Dr. Warren Chan, distinguished professor, and Canada Research Chair in Nanobioengineering & Director of the Institute of Biomedical Engineering at the University of Toronto. Under the terms of the memorandum of understanding executed with the University of Toronto, Dr. Chan will provide Sona with consultation on the design and execution of appropriate studies to determine the biocompatibility of its gold nanorod technology. Under the collaboration, the parties have submitted an application for funding of a study to determine the clearing and biocompatibility of Sona GNRs in vivo.

Sona's research collaborations will leverage the expertise and scientific leadership of a group of third-party, respected scientists and entrepreneurs to work with Sona's team, bringing together nanoparticle production technology with advanced physical chemistry techniques and biological studies. This program will seek to substantiate the biocompatibility of Sona's proprietary, gold nanorod manufacturing processes and provide a foundation for further research programs, with a view to identifying the most promising potential medical applications for Sona's technology. For its test and reagent development business, Sona will continue to develop proprietary rapid diagnostic tests and associated biologic reagents for the medical and other industries. The Company has also begun to offer the same services to third parties. Providing this service is an important addition as it is highly complementary to the laboratory-based work for Sona's proprietary development business and is expected to be undertaken on a 'fee for service' basis, which has the potential to generate revenue in the near-term. The Company aims to use its network and reputation for quickly developing rapid diagnostic test prototypes and reagents to secure profitable business opportunities.

Rapid Screening Test for Coronavirus

Sona has deployed its scientific experience personnel and assets in the development of a rapid screening 'lateral flow assay' test for the current coronavirus, COVID-19, and has developed a quick-response lateral flow test to screen patients for the COVID-19 virus. Such tests can be administered without skilled technicians or additional laboratory equipment for use as a screening tool to help triage individuals.

With the continued spread of the delta and omicron variants, there is growing consensus that testing will still be required to screen virus outbreaks 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 20 minutes.

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.

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 longer 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. Studies show positive COVID-19 patients presenting symptoms have viral loads in the 10^4 – 10^6 range.

In late August 2020, the Company announced that its rapid detection COVID-19 antigen test achieved a sensitivity of 84.6% and a specificity of 90.0% in a clinical trial of 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 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 no such authorization was issued at that 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 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.

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.

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.

In April 2021, the Company was granted Health Canada Investigational Testing Authorization for a clinical trial of the Sona Saliva C-19 Rapid Test and received approval from the research ethics board of the Humber River Hospital in Toronto for its clinical trial of the Sona Saliva C-19 Rapid Test. The trial was designed to evaluate the ability to detect the COVID-19 virus in saliva samples using a novel collection device and a rapid antigen test cassette. The trial's objective is to determine the clinical performance of the test when compared to RT-PCR, in symptomatic patients. Analytical validation studies would still be required to support any regulatory submissions.

On June 11, 2021, however, the Company discontinued its clinical trial of its COVID-19 rapid antigen saliva test after a review of the interim results data, due to inadequate test sensitivity with clinical saliva samples and challenges with patient recruitment and enrollment into the study, as local prevalence of the virus had diminished significantly.

During the summer and fall of 2021, the Company undertook a thorough analysis and optimization work for its rapid saliva COVID-19 test which resulted in modifications being made to its design. A preliminary evaluation of the resulting test, run by ASI, compared thirty-seven live viral samples from patients that had generated a positive result with a BinaxNow COVID-19 rapid antigen test. Of the thirty-seven samples tested, thirty-four generated a positive result on both tests. Further testing in aan independent lab using PCR confirmed frozen positive samples with CT cut-off of 30 cycles and frozen, pre-COVID-19 negative samples, generated 93% sensitivity (14/15) and 100% specificity (30/30). Further evaluation against PCR test-confirmed COVID-19 positive samples will be required for any regulatory submission or declaration.

With the emergence of the Omicron variant, there is growing consensus that testing will still be required to screen of virus outbreaks to keep economies open while still protecting the population. Leveraging on its expertise and experience in developing rapid antigen tests and network of key material suppliers, Sona has developed a quick-response lateral flow test to screen patients for the COVID-19 virus that uses saliva samples. Sona's rapid COVID-19 antigen saliva 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 20 minutes.

In November 2021, the Company entered a binding licensing agreement with U.S. Food and Drug Administration ("FDA") registered Arlington Scientific Inc. ("ASI") of Springville, Utah, an in-vitro diagnostics developer, manufacturer and distributor, to bring Sona's rapid saliva COVID-19 test to market. Under the terms of the agreement, Sona licenses the intellectual property for its rapid saliva COVID-19 test and ASI undertakes to secure

an FDA Emergency Use Authorization ("EUA") for point-of-care and at-home use for the test and any necessary associated activities, including medical ethics review board approval, the coordination and underwriting of US-based clinical and any other studies, and FDA EUA application submissions and follow-up. If an FDA EUA is granted, ASI will coordinate manufacturing and distribution of the test in the U.S. exclusively on a profit-sharing basis by which it would also earn a share of any of Sona's profits from international sales.

Under the terms of the licensing agreement, Sona provides ASI with a license to the test technology, its documentation and ancillary support, as well as providing key biological materials for the test at its cost. ASI is responsible for securing an FDA EUA and all associated data required as outlined in the FDA EUA templates or requested by the FDA during the review and approval process. If ASI secures an FDA EUA for the test within six months, ASI will be permitted to manufacture and distribute the test in the US exclusively, subject to certain conditions, and will pay Sona a set percentage of profits from its test sales under a formula that accounts for certain costs of goods sold from each party. Further, ASI will receive from Sona a set percentage of its profits of other sales not facilitated by ASI. The agreement has a term of five years, after which it is annually renewable by mutual agreement of the Parties, and provides both parties with customary audit rights.

Since entering into the licensing agreement with ASI, Sona has been working actively with ASI to support their efforts to generate the data necessary to support an EUA filing with the FDA via a clinical trial in the United States, as well as to prepare for scaled manufacturing in the United States for more than 500,000 units per week.

The Company cautions that its rapid detection COVID-19 antigen test has not been approved by Health Canada or the United States Food and Drug Administration. 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.

Other Lateral Flow Tests

The Company's product portfolio of other proprietary lateral flow test prototypes continues to be advanced. 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 Bovine TB Test

In May 2021, the Company announced that it is receiving advisory services and up to $457,830 in funding support from the National Research Council of Canada ("NRC") Industrial Research Assistance Program ("IRAP") to support a research project in association with a consortium of UK companies to develop a bovine tuberculosis ("bTB") rapid test. NRC's IRAP contribution was approved under a program to promote collaborative projects with UK partners through the Canada-UK industrial research and development call for proposals delivered by the National Research Council of Canada and UK Research and Innovation.

As part of the multi-year project, Sona will work closely with other consortium members to leverage bTB biomarker research from Aberystwyth University to develop a rapid, lateral flow assay to identify bTB that differentiates between vaccinated and unvaccinated cows. The consortium also intends to develop a data collection infrastructure system to enable authorities to detect, manage and control movement of infected animals. UK Research and Development are supporting other members of the consortium with funding to assist in the goal of eradicating bTB in the UK.

Accurate and timely detection, herd management and movement control are critical to eradicating this communicable disease which is still prevalent in many areas of the World. Currently, a diagnosis is made through post-mortem examination and tissue culture, which can take up to 12 weeks. Once bTB is confirmed, all infected and exposed animals in a herd are typically destroyed. bTB control measures cost over £500 million in the last 10 years and without intervention, the UK government expects costs to top £1 billion over the next decade if no new action is taken. bTB is also an issue in the European Union where, in 2018, 7.5 million statutory bTB lab-based, screening tests were carried out across seven countries, including France, Belgium, Italy and the UK.

In September 2021, Sona announced that its bovine tuberculosis ("bTB") test has been advanced with the identification of multiple biomarkers that can not only be used to detect the presence of bTB bacteria, but, as set, are able to differentiate whether the bacteria is present due to an ongoing infection or as a result of vaccination. The biomarkers that have been identified to be used in the assay have been synthesized into two different antigens which will be used to develop the polyclonal and monoclonal antibodies for use in a multiplex lateral flow assay. Sona's research has confirmed the presence of the biomarkers in both blood and milk and further assessment will be required to determine the final assay matrix, while antibody development is concurrently pursued over the next 4-6 months.

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 has entered the prototype development stage. Industry standard timelines for such a test to reach commercialization is estimated at one to two years, 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.

In September 2021 Sona announced that it's concussion test for mild traumatic brain injury ("mTBI") will aim to detect a series of biomarkers enabling the test to be used to screen for mild concussions. After a study of multiple alternatives, three such biomarkers that corelate with concussions have been selected to be used in the test. Sona's test is intended to work by first identifying the presence or absence of one key biomarker, that, if present, indicates the patient may be suffering from something more severe than a mild concussion. If this marker is absent, yet a second or third biomarker is present, this would indicate that the patient may be suffering from a mild concussion and further medical help should be sought. These biomarkers have been carefully selected and the corresponding antibody pairings and antigens have been acquired. The next phase of the project will take up to six months and include initial screening of the antibody pairings, performance assessment against various antigens and the creation of a multiplexed prototype device.

At-The-Market Share Offering ("ATM")

In April 2021, the Company announced that, pursuant to an equity distribution agreement with Canaccord Genuity Corp., the Company may, from time to time, sell up to $10 million of common shares in the capital of Sona. Under the ATM Offering, common shares will be distributed at trading prices prevailing at the time of the sale and therefore prices may vary between purchases and during the period of distribution. The volume and timing of sales are determined at the sole discretion of the Company's management and in accordance with the terms of the Equity Distribution Agreement.

During the year ended October 31, 2021, the Company sold 1,312,400 common shares pursuant to the ATM for gross proceeds of $2,271,427. Costs of the shares sold under the ATM were $286,935 during the period, for net proceeds to the Company of $1,984,492. Under the ATM Offering, for the remainder of the fiscal year ended October 31, 2021, the Company has issued no shares following the expiry of its first Placement Notice on May 31, 2021. Subsequent to October 31, 2021, the Company has issued 1,147,000 common shares at a weighted average price of $0.49 for net proceeds to the Company of $550,148. Sona intends to use the net proceeds of the ATM for general corporate and working capital requirements and funding ongoing operations including research and development.

Financing
In December 2020, the Company completed 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.

The value allocated to the common shares issued was $1,679,452, and the value allocated to the common share purchase warrants was $579,748. Total costs associated with the private placement, consisting primarily of professional and regulatory fees, were $9,515. The Company allocated $7,073 to the costs of issuing the common shares and $2,442 to the costs of issuing the warrants.

Proceeds of the financing were 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.

Funding - Next Generation Manufacturing Canada
In 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. The Company received funding of $3,508,376 from NGen during the year ended October 31, 2020 and received $387,919 during the year ended October 31, 2021. Total reimbursable expenditures covered by the grant to the end of the project were $3,896,295. $3,868,977 of eligible expense recoveries were incurred during the year ended October 31, 2020, and $27,318 were incurred during the year ended October 31, 2021.

NGen played a valuable role in project funding, enabling the acceleration of the development, and enhancing the scope of the Company's abilities 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 Settlement
In January 2022, the Company arranged a debt settlement of $1,452,724 in amounts owed to Numus Financial Inc. ("Numus"). These amounts include accounts payable to Numus of $813,895 pursuant to its services agreement with the Company dated October 31, 2018 (the "Services Agreement") for rent, and advisory, controller and administrative services provided to Sona, and a loan payable (with fees and accrued interest) of $638,829 (the "Debts"). Numus will forgive $302,400 and the remaining Debts of $1,150,324 will be settled in full by the issuance to these creditors of an aggregate of 2,556,276 common shares at a deemed price of $0.45 per share. All of these shares will be subject to resale restrictions prohibiting resale for a period of 4 months and a day from their date of issue. Sona expects the settlement of the Debts and Services Agreement amendments to positively affect its financial statements and give Sona greater operating flexibility.

Note Payable Settlement for Shares
During the year ended October 31, 2020, the Company retired its Convertible Notes ("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 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 Notes conversion.

SELECTED ANNUAL FINANCIAL INFORMATION

	Year ended October 31, 2021	Year ended October 31, 2019	Year ended October 31, 2019
	$	$	**$**
Expenses	**(10,731,787)**	**(6,009,154)**	(1,737,884)
Other income (expenses)	**364,568**	**(262,869)**	(783,825)
Comprehensive loss for the year	**(10,367,219)**	**(6,272,023)**	(2,521,709)
Loss per common share	**(0.16)**	**(0.10)**	(0.05)
Cash dividends per common share	**-**	**-**	-
Total assets	**1,523,308**	**724,629**	859,211
Current liabilities	**2,045,915**	**4,160,094**	1,214,835
Long-term liabilities	**-**	**-**	666,819
Shareholders' equity (deficiency)	**(1,223,368)**	**(3,435,465)**	(1,022,443)

SELECTED QUARTERLY FINANCIAL INFORMATION

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

	Oct 31, 2021	Jul 31, 2021	Apr 30, 2021	Jan 31, 2020	**Oct 31, 2020**	Jul 31, 2020	Apr 30, 2020	Jan 31, 2020
	$	$	$	$	**$**	$	$	$
Expenses	**(1,748.507)**	(2,177,319)	(3,119,025)	(3,686,936)	**(3,450,545)**	(1,722,424)	(528,657)	(307,528)
Other income (expenses)	**374,292**	(9,778)	2,567	(2,513)	**52,539**	4,000	(297,307)	(22,101)
Net loss for the quarter	**(1,374,215)**	(2,187,097)	(3,116,458)	(3,689,449)	**(3,398,006)**	(1,718,424)	(825,964)	(329,629)
Loss per share – basic & diluted	**(0.02)**	(0.03)	(0.05)	(0.06)	**(0.06)**	(0.03)	(0.01)	(0.01)

Results of Operations for the years ended October 31, 2021 and 2020

The Company reported a net loss for the year ended October 31, 2021 of $10,367,219, or $0.16 per share, as compared to a net loss of $6,272,023, or $0.10 per share, for the year ended October 31, 2020. The increase was primarily due to higher share-based compensation expense, which increased approximately $5.2 million over the comparable year due to stock options issued in 2020 and 2021.

Expenses

During the current year, the Company also incurred expenses of $10,759,105 (before NGen cost recoveries), an increase of $1,596,997 from the $9,162,108 (before NGen cost recoveries) incurred in the prior year. In the current year, the Company incurred $154,137 (2020 – $3,606,036) in research and development expenses (net of vendor settlements), primarily on its COVID-19 project which commenced in 2020. Research and development expenses in the prior year were primarily recovered from the NGen COVID-19 project funding. The Company also incurred an increase in salary and benefits of approximately $368,000 with the new employees hired in mid 2020 in relation to its COVID-19 project. The Company had a decrease in professional and consulting fees of $586,000 due to higher research and development consulting expenditures in 2020 related to the COVID-19 project. The Company recovered $27,318 of eligible expenses from the NGen COVID-19 project funding grant (2020 - $3,176,812), as well as approximately $67,974 from the NRC's IRAP during the current year, which was offset against salaries and benefits.

Securities and regulatory costs increased by approximately $40,000 in the current year due to an increased number of press releases, increased AGM costs, as well as higher regulatory costs. In addition, the Company maintained its efforts on sales and marketing, with an increase of approximately $11,000. Management service fees of $228,000 (2020 – $228,000) relate to consulting services provided by Numus. Travel costs remained low with very limited travel occurring due to COVID-19 travel restrictions.

Administrative expenses, including rent and related costs, increased approximately $118,000 primarily as the result of increased insurance costs. The Company recorded a foreign exchange gain of $41,618 (2020 – foreign exchange gain of $23,858) during year ended October 31, 2021. The foreign exchange gain was primarily incurred on the Company's foreign currency accounts payable due to changes in the Canadian exchange rate during the current year.

The Company has granted stock options during the year ended October 31, 2021 and the two prior years to officers, directors, employees, and consultants of the Company. In September 2021, the Company granted 335,000 stock options with an exercise price of $0.30 to a director and consultant of the Company. In November 2020, the Company granted 250,000 stock options with an exercise price of $3.36 to a director 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.

The fair value of the September 2021 stock options was $88,127. The fair value of the November 2020 stock options was $762,188, and the fair value of the stock options issued during the year ended October 31, 2020 was $12,661,998. 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 $8,241,389 has been recorded for the year ended October 31, 2021 (2020 - $3,092,539).

Other income and expenses

During the year ended October 31, 2021, the Company recorded a recovery of $277,571 (2020 – an expense of $295,807) relating to the fair value adjustment on the repayable government loans (the "ACOA loans). The face value of the ACOA loans was $978,332 in 2021 and 2020. The value recorded in other income or expense results from the difference between the face value of the ACOA loans and the fair value of the ACOA loans. The fair value of the loans is determined using the present value of the projected repayment of the loan, based on a 3% and 5% rate on the estimated gross product revenues. No ACOA loans were received during the current year. The Company also recorded no accreted interest (2020 - $15,706) on the ACOA loans for the year. During the current year, the Company recorded $102,846 (2020 - $55,000) of other income relating to an estimate of scientific research tax credits ("SR&ED")

During the year ended October 31, 2020, the Company entered into a loan agreement with Numus Financial Inc. 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 $612,000 on the loan, including a lender fee of $12,000, and has accrued interest of $23,310 as at October 31, 2021, including interest of $20,849 (2020 - $2,401) incurred during the current year. Interest expense of $7,395 was recognized during the prior year on the Company's convertible notes prior to the settlement.

The Company recorded a gain on the value of its investments of $5,000 in the year (2020 –$3,500) and tax credits of $102,846 (2020 - $55,000).

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, 2021, Sona had a cash balance of $1,183,260, compared to cash of $102,782 at October 31, 2020.

The negative working capital balance at October 31, 2021 was $633,665 as compared to the negative working capital balance of $3,612,117 at October 31, 2020. The increase in working capital is primarily due to the private placement financing completed by the Company in December 2020 and the ATM initiated in April 2021. The Company received net proceeds of $2,249,685 pursuant to the financing in December 2020 and net proceeds of $1,984,492 pursuant to the ATM in April and May 2021.

During the year ended October 31, 2021, Sona used cash of $3,813,342 to fund operating activities, including its COVID-19 project. The Company received cash of $91,250 upon the exercise of 331,250 stock options, $12,500 upon the exercise of 10,000 warrants, and a further $100,000 on its loan from Numus. The Company also received cash of $387,919 in NGen expense recoveries and $67,974 from the IRAP program during the year ended October 31, 2021.

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. 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, 2021 for additional details.

COMMITMENTS AND CONTINGENCIES

The Company has 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.

As at October 31, 2021, the Company has a Services Agreement with Numus Financial Inc. See the *Related Party Transactions* section of this MD&A for further details on the agreement.

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 March 18, 2020 and February 28, 2021 (the "US action"). The suit alleges that the Company made material misstatements regarding its rapid detection COVID-19 antigen test. On October 28, 2021 the United States District Court for the Central District of California issued an order granting the Company's motion to dismiss and granted leave to the plaintiff to file an amended complaint within 14 days. During November, the plaintiffs filed an amended complaint which the Company has refuted with a motion to dismiss the amended action.

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, 2021 the Company had 64,184,628 common shares outstanding. As of February 28, 2022, the Company had 68,987,804 common shares outstanding due to share issuances pursuant to the ATM, related party debt settlement and 100,000 stock options that were exercised subsequent to the end of the year.

As of October 31, 2021 the Company has 4,591,250 stock options outstanding at an average exercise price of $3.35 per common share with varying expiry dates. As of February 28, 2022, the Company has 5,741,250 stock options outstanding at an average exercise price of $2.77 per common share with varying expiry dates. 1,250,000 stock options were granted and 100,000 stock options were exercised subsequent to the end of the year.

As of October 31, 2021 and February 28, 2022, there were 1,119,600 common share purchase warrants outstanding pursuant to the December 2020 financing. The warrants are exercisable at a price of $1.25 per share and expire on December 15, 2022.

RELATED PARTY TRANSACTIONS

During the year ended October 31, 2021, the Company incurred costs for service fees from a related party, Numus a company controlled by significant shareholders, including one director of Sona, in the amount of $228,000 (2020 - $228,000), controller services of $30,000 (2020 - $47,500), and incurred rent and administrative costs from Numus in the amount of $30,600 (2020 - $30,600). Subsequent to October 31, 2021, the monthly service fee was reduced from $19,000 to $4,000 per month.

As outlined in the Services Agreement between Numus and the Company, if the Financial Controller services are cancelled by the Company, a break fee of 45 days of remuneration, being $3,750, 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 without notice to Numus, a break fee of three months of remuneration, being $7,650, will be payable to Numus.

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 $612,000 on the loan, including a lender fee of $12,000, and has accrued interest of $23,310 as at October 31, 2021 (2020 - $512,461, including a lender fee of 10,000 and accrued interest of $2,461).

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 Sona.

As at October 31, 2021, the amount owing to Numus, including accounts payable, the loan balance and accrued interest, was $1,398,688 (2020 – $944,344).

On January 5, 2022, the Company arranged a debt settlement of $1,452,724 in amounts owed to Numus through the issuance of 2,556,276 common shares at a deemed price of $0.45 per share. These amounts include accounts payable to Numus of $813,895 pursuant to its services agreement with the Company and a loan payable (with fees and accrued interest) of $638,829. Numus will also forgive $302,400 and the remaining Debts as part of an agreement that includes amendments to the Services Agreement to reduce service fees.

During the year ended October 31, 2021, the Company granted 585,000 stock options under the Company's stock option plan. 550,000 of the stock options were issued to directors and officers of Sona. 250,000 of the options issued to related parties have and exercise price of $3.36 per share and 300,000 have an exercise price of $0.30. These options vest at the rate of 25% every six months and will expire in five years from the date of issuance. During the year ended October 31, 2021, officers and directors exercised 237,500 stock options at an exercise price of $0.20, for gross proceeds of $47,500. On the exercise date the share prices was $0.30 per common share.

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 have an exercise price of $0.60 per share and 900,000 have an exercise price of $7.47 per share. These options vest at the rate of 25% every six months and will expire in five years from the date of issuance.

As at October 31, 2021, the amount owing to Randall Consulting Inc. ("RCI"), a company controlled by an officer of Sona, was $67,225 (October 31, 2020 - $131,294). As at October 31, 2021 and October 31, 2020, an amount of $38,750 was also owing to a director of the Company.

Compensation awarded to key management during the year ended October 31, 2021 was $4,710,840, including $561,965 in salaries and fees earned, and $4,148,875 in share-based compensation expense (October 31, 2020 - $353,410 in salaries and fees earned, and $2,336,374 in share-based compensation expense). The Company's key management includes the directors, CEO, CFO, and the CSO.

Subsequent to October 31, 2021, the Company granted 1,250,000 incentive stock options in accordance with the Company's stock option plan to directors of the Company. The options have an exercise price of $0.45 per share and will expire five years from the date of grant.

As a result of Sona's Transaction in 2018, the Company acquired Convertible 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. 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 Notes conversion.

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

It is possible that developments related to the COVID-19 pandemic could have material adverse impacts on the Company's operations and financial condition, including loss of available labour, prolonged or temporary closures due to a COVID-19 outbreak, government orders that impact the operations of the Company's business. Since very early in 2020, the outbreak of 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. 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. In addition, the COVID-19 pandemic has had, and could continue to have, a negative impact on financial markets and economic conditions. 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. The duration and severity of the COVID-19 pandemic are not known at this time and these factors could have an unpredictable impact on our business, financial condition and operating results, which could be materially and adversely affected.

While vaccination rates in many countries are climbing, questions still remain as to each vaccine's efficacy with evolving strains of the virus and whether vaccinated individuals can still transmit the virus. Furthermore, it is not expected that any population will reach 100% vaccination penetration and, in fact, many countries still have very low vaccination rates.

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.

Litigation

As described under "Legal Proceedings and Regulatory Actions" in the Company's Annual Information Form dated February 26, 2021 and under "Litigation" in the Company's Short Form Base Shelf Prospectus dated March 31, 2021, claims against the Company have been filed in the United States District Court for the Central District of California and the Supreme Court of Nova Scotia. Although the Company believes these claims are without merit and intends to contest the claims and mount a vigorous defence, there can be no assurance that the Company will be successful in its defense due to the inherent uncertainty of the litigation process. Further, while the Company is not aware of any regulatory investigations or additional pending claims relating to the allegations made in the existing class action claims, the Company may be subject to additional class action suits, other litigation, or regulatory proceedings or actions arising from such matters in the future.

While the Company maintains insurance coverage with respect to litigation, an adverse decision in respect of existing claims against the Company could result in significant settlement amounts, damages or other penalties, which may exceed the limits of the Company's existing insurance coverage. Losses and liabilities arising from insufficient insurance coverage could have a material adverse effect on the Company's business, financial condition and results of operation, as well as the market price of the Securities. Additionally, legal fees and costs incurred in defending legal disputes can be substantial, even where such claims that have no merit. The Company has and will continue to incur expenses associated with its defense of the class action claims. There can be no assurance that the Company's existing insurance coverage will be sufficient to pay all of such costs, and any costs incurred in excess of insurance coverage may have a material adverse effect on the Company's financial condition.

In addition to the matters discussed above, the Company may be subject to regulatory investigations, civil claims, lawsuits and other proceedings in the ordinary course of its business, including securities law compliance, employee and customer claims, commercial disputes, landlord-tenant disputes, intellectual property issues and other matters. The results of any legal proceedings involving the Company cannot be predicted with certainty due to the uncertainty inherent in regulatory actions and litigation. There can be no assurance that any pending or future litigation, regulatory, agency or civil proceedings, investigations and audits will not result in substantial costs or a diversion of management's attention and resources. The nanotechnology life science industry is a new industry and the Company is a relatively new enterprise. It is therefore more difficult to predict the types of claims, proceedings and allegations and the quantum of costs related to such claims and proceedings and the direct and indirect effects of such allegations that the Company may face. Management is committed to conducting business in an ethical and responsible manner, which it believes will reduce the risk of legal disputes and allegations. However, if the Company is subject to legal disputes or negative allegations, there can be no assurances that these matters will not have a material adverse effect on the Company's business, financial condition or results of operations, or the market price of the Securities.

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 many approved COVID-19 tests in Canada, with a total of more than 300 emergency use authorizations issued by the FDA. 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 and the United States of America. 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, 2021 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 July 31, 2021, 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 October31, 2021 or the year ended October 31, 2020 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, 2021. 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.

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

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 rate 14.33% 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.