SERNOVA CORP.

MANAGEMENT'S DISCUSSION AND ANALYSIS

FOR THE YEARS ENDED
OCTOBER 31, 2017 AND 2016

Dated January 26, 2018

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The following management's discussion and analysis ("MD&A") explains the variations in the consolidated operating results, financial position and cash flows of Sernova Corp. ("Sernova", the "Company", "We", "Us" or "Our") for the three months and years ended October 31, 2017 and 2016. This MD&A should be read in conjunction with the Company's audited consolidated financial statements for the years ended October 31, 2017 and 2016, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The Company's accounting policies under IFRS are set out in Note 3 of the audited consolidated financial statements for the years ended October 31, 2017 and 2016. All amounts are in Canadian dollars.

The information in this report is dated as of January 26, 2018.

FORWARD-LOOKING STATEMENTS

This MD&A contains "forward looking statements" that reflect the Company's current expectations and projections about its future results. When used in this MD&A, forward looking statements can be identified by the use of words such as "may", or by words such as "will", "intend", "believe", "estimate", "consider", "expect", "anticipate", and "objective" or similar expressions and variations of such words. Forward looking statements are, by their nature, not guarantees of the Company's future operational or financial performance, and are subject to risks and uncertainties and other factors that could cause the Company's actual results, performance, prospects or opportunities to differ materially from those expressed in, or implied by, these forward-looking statements. No representation or warranty is intended with respect to anticipated future results, or that estimates or projections will be sustained.

The Company's statements of "belief" with respect to its product candidates are based primarily upon results derived to date from the Company's research and development programs. The Company also uses the term "demonstrated" in this MD&A to describe certain findings that it makes arising from its research and development including any pre-clinical and clinical studies that the Company has conducted to date.

Specifically, this MD&A contains forward-looking statements which include, but are not limited to, statements regarding:

- The Company's corporate strategies and objectives;
- General business and economic events;
- The availability of various forms of financing;
- The initiation and completion of pre-clinical studies and clinical trials of our Cell Pouch™ for the treatment of insulin-dependent diabetes and other diseases;
- The expected benefit of the Cell Pouch™ with therapeutic cells;
- The expected benefit of the European Commission's Horizon 2020 grant for our hemophilia program;
- The intention to protect therapeutic cells within the Cell Pouch™ from immune attack using local immune protection such as microencapsulation or other local immune protection technologies, or through the use of systemic antirejection regimens or a combination thereof;
- The intention to use human autograft cells, or human donor cells for treatment and the intention to use human stem cell derived cells or xenogeneic cells which are considered unlimited cell sources for our Cell Pouch™ for the potential treatment of chronic diseases;
- The intention to obtain regulatory approval and commercialize the Cell Pouch™ for the treatment of insulin-dependent diabetes and other potential indications such as hemophilia and thyroid disease;
- Expectations with respect to the cost of Sernova's products, clinical trials and commercialization of our products;

- Sales and marketing strategy;
- Sernova's intentions to secure academic and pharmaceutical collaborations and to develop and implement partnering strategies; and
- Intentions regarding the development and protection of Sernova's intellectual property.

In developing the forward-looking statements in this MD&A, the Company has applied several material assumptions, including the availability of financing on reasonable terms, the Company's ability to form and maintain strategic alliances with other business entities and general business and economic conditions.

Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this MD&A or as of the date otherwise specifically indicated herein. Due to risks and uncertainties, including the risks and uncertainties described elsewhere in this MD&A, actual events may differ materially from current expectations. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

This MD&A has been prepared to help investors understand the financial performance of Sernova in the broader context of the Company's strategic direction, the risks and opportunities as understood by management, and some of the key metrics that are relevant to the Company's performance. This MD&A has been reviewed and approved by the Company's Audit Committee and the Board of Directors. The Company's Audit Committee includes three independent Directors who are financially knowledgeable.

ABOUT SERNOVA

Sernova Corp. is a regenerative medicine company, focused on developing and commercializing its proprietary Cell Pouch™ and associated technologies including therapeutic cells and local immune protection. The Cell Pouch™ is a scalable, implantable, medical device, designed to create a microvessel rich, tissue environment for the transplantation and engraftment of therapeutic cells, which then release proteins and/or hormones for the long-term treatment of a number of serious, chronic diseases such as diabetes, hemophilia and thyroid disease. Based on the clinical indication, the therapeutic cells may be obtained directly from human autograft (self-cells) or allograft cells (non-self, donor cells), or derived from sources known to provide a virtually unlimited supply of cells such as from a stem cell derived or xenogeneic (non-human) source. Depending on the need, the therapeutic cells may be protected within the Cell Pouch™ using systemic or local immune protection technologies such as microencapsulation or other local immune protection technologies being developed to create an immune privileged environment for protection of the Cell Pouch™ transplant from rejection.

Our initial studies have focused on the treatment of insulin-dependent diabetes through the transplantation of pancreatic islets, which control blood glucose levels. To date, we have successfully transplanted donor islets into our Cell Pouch™ to treat insulin-dependent diabetes in multiple animal models, and conducted a proof of principle clinical study for the treatment of human subjects with diabetes receiving an islet transplant, protected by the standard of care antirejection drug regimen. In this study, results in a small cohort of patients have shown the Cell Pouch™ to be safe alone and when transplanted with human donor islets. The Company plans to continue clinical investigation of the Cell Pouch™ with donor islets. On September 10, 2015, the Company secured a potential source of unlimited cells, through the signing of a license agreement with the University Health Network ("UHN") of Toronto, Canada to gain exclusive worldwide rights to certain patent-pending technologies that are related to the differentiation of stem cells into insulin producing glucose-responsive therapeutic cells developed by UHN researchers. We continue to identify additional potential sources of cells which are not limited by donor availability through license agreements and/or partnerships.

The Company is also investigating other diseases amenable to treatment with therapeutic cells such as hemophilia and thyroid disease.

Research and Development

Sernova has been a development stage company since inception. Our research and development efforts are focused principally on the development of the Cell Pouch™ in conjunction with various therapeutic cells for the treatment of chronic diseases and local immune protection technologies (e.g. microencapsulation) that may protect the therapeutic cells within the Cell Pouch™ from immune system attack. We have not been profitable since inception, and we expect to continue to incur substantial losses as we continue our research and development efforts. We do not expect to realize material revenues until, if and when, our medical technologies become commercially viable; however, we continue to seek partnerships with pharmaceutical companies to partially offset the development costs related to our products.

Our objective is to advance our medical technologies through the various stages of preclinical and clinical development required to develop a commercial product. The programs we undertake may involve third party collaborations and corporate partnerships in addition to our internal preclinical and clinical development efforts. To achieve our goals, our primary activities include the following:

1. Conducting clinical trials required to gain marketing approval for the Cell Pouch™ System in countries that have a significant market opportunity. Our first product is being developed for the treatment of insulin-dependent diabetes. Our first clinical trial, designed to demonstrate the proof of concept of the Cell Pouch™ and therapeutic cells, was initiated in Canada and is ongoing. The treatment consists of our proprietary Cell Pouch™ transplanted with human donor islets, protected using the standard of care antirejection drug regimen, for subjects with insulin-dependent diabetes with hypoglycemia unawareness.

   The Company also has a long-term goal of the treatment of diabetes using the Cell Pouch™ transplanted with locally immune protected cells from an unlimited source of cells such as glucose-responsive stem cell derived cells or xenogeneic cells and has work ongoing in these areas;
2. Conducting pre-clinical research programs in other therapeutic indications for our platform Cell Pouch™ technology including: hemophilia, thyroid disease, and other chronic diseases that require a hormone, protein or other factor which is missing or in short supply in the body;
3. Development of various sources of therapeutic cells for transplantation within our Cell Pouch™, including, depending on the clinical application, autologous cells, allogeneic cells such as donor cells or glucose responsive stem cell derived cells that could be used to treat large numbers of patients as well as xenogeneic cells;
4. Identification and development of complementary technologies which may improve the safety and efficacy of cells within the Cell Pouch™, including local immune protection technologies such as microencapsulation;
5. Manufacturing and supply of the Cell Pouch™ and the processing and supply of therapeutic cells;
6. Generation and/or licensing of intellectual property; and,
7. Developing partnerships with medical device and/or pharmaceutical companies for the development of our products.

Corporate Update for the years ended October 31, 2017 and 2016 and to the date of this MD&A

In October 2016, the Company entered into a collaboration with an international pharmaceutical company to study Sernova's Cell Pouch™ in a large animal diabetes model. The collaboration involves the study of safety, survival and efficacy of locally immune protected therapeutic cells in our Cell Pouch™ in proof of concept studies with the goal to establish a future development and commercial partnership. The preclinical safety and efficacy studies are ongoing. This agreement included 50% cost sharing for the agreed studies. A payment in the amount of US$185,778 ($249,611) was received in December 2016.

In November 2016, we retained the services of CTI Clinical Trial and Consulting Services ("CTI"), on regulatory matters with respect to Sernova's Cell Pouch System. CTI is supporting Sernova's clinical trial regulatory processes including submission of Sernova's regulatory package with the FDA to support a Phase I/II safety and efficacy human clinical trial using Sernova's Cell Pouch technologies. The study will be conducted in the United States for treatment of hypoglycemia unawareness patients with severe type 1 diabetes. The goal of the Phase I/II safety and efficacy study is to provide patients with hypoglycemia unawareness a novel cell therapy treatment utilizing Sernova's cell macroencapsulated implantable, scalable device to reduce or eliminate the need for injections of exogenous insulin.

In May 2017, we announced we received TSX Venture Exchange acceptance, to extend the expiry date of 5,745,633 share purchase warrants that are exercisable to purchase up to 5,745,633 common shares of Sernova at an exercise price of $0.30 per share, from May 8, 2017 to November 8, 2017. The Company also obtained approval from the TSV Venture Exchange to extend the expiry date of 3,043,256 share purchase warrants that are exercisable to purchase up to 3,043,256 common shares of Sernova at an exercise price of $0.30 per share, from May 14, 2017 to November 14, 2017. All other terms of the Warrants remain unchanged, including the exercise period, as extended, being subject to abridgement on 30 days' notice to holders in the event that the twenty-day volume weighted price of the Company's shares exceeds $0.50.

In July 2017, Sernova announced significant scientific progress achieved in the development of a personalized regenerative medicine therapy for the treatment of Hemophilia A patients by the HemAcure Consortium and confirmation of approval of the second phase of funding of the Consortium by the European Commission. The therapy being developed by the international scientific Consortium, which includes Sernova Corp as a partner, is to treat severe Hemophilia A, a serious genetic bleeding disorder caused by missing or defective clotting factor VIII in the blood stream. This therapy consists of Sernova's implanted Cell Pouch™ device transplanted with therapeutic cells, corrected to produce Factor VIII at a level sufficient to significantly reduce the side effects of the disease and improve patient quality of life.

In summary, the following developments have been achieved by the Consortium:

- A reliable procedure has been implemented to isolate and maintain required endothelial cells from a sample of the patient's blood.
- Using a novel gene correction process, the cells have been corrected and tuned to reliably produce the required Factor VIII to treat Hemophilia A.
- The cells have been successfully scaled up to achieve the required therapeutic number, and cryopreserved for shipping and future transplant into the implanted Cell Pouch™.
- A preliminary study confirmed survival of the Factor VIII corrected human cells injected into the hemophilia model, achieving sustained therapeutic Factor VIII levels. This preliminary work is being used to aid in dosing of these cells in the Cell Pouch™.
- Safe Cell Pouch™ surgical implant and cell transplant procedures have been developed in the hemophilia A model in preparation for use in hemophilia patients.

- Development of Cell Pouch™ vascularized tissue chambers suitable for Factor VIII producing cell transplant has been demonstrated in the hemophilia A model, expected to mimic the predicted findings in human patients.
- Demonstration of survival of the Factor VIII corrected human cells transplanted into the Cell Pouch in a mouse hemophilia model as part of the study of Cell Pouch™ cell engraftment.
- In combination, this work is in preparation for safety and efficacy studies of the human hemophilia corrected Factor VIII producing cells in the Cell Pouch™ in a preclinical model of hemophilia.

In August 2017, we announced we engaged FronTier Merchant Capital Group to provide North American investor relations (IR) and strategic marketing services to the financial community and media across North America with the goal to build our shareholder value. FronTier is assisting the company by increasing market awareness through financial market communications, including facilitating in-person introductions for the company with institutional and retail brokers in Canada and throughout the United States, and through media distribution on national television, radio and multiple on-line channels. FronTier has offices in Toronto, Montreal and Calgary. Under the terms of the engagement, FronTier has been retained for a 12-month period at $80,000 per annum plus direct expenses.

In August 2017, Sernova's Board of Directors granted 3,735,000 stock options to certain officers, employees and consultants of the company, each such option being exercisable into a common share at a price of $0.25 per share for a period of 10 years. The Board of Directors also granted 239,778 DSU's and approved an amendment to the Company's Option Plan & Deferred Share Unit Plan (the "Amended Plan") to increase the number of DSUs available by 660,222 to a maximum of 1,975,000. These additional DSUs were conditionally approved and granted subject to the Company obtaining shareholder approval and TSX Venture Exchange approval.

In November 2017, based on the successful mid-term report provided by the Horizon 2020 HemAcure consortium to the European Commission, Sernova received a second payment of non-dilutive funds from the European Commission in the amount of €226,602.60 ($331,770 CDN). Sernova will use the payment to continue to fund activities related to the development of a Factor VIII releasing therapeutic cell product combined with Sernova's Cell Pouch™ to treat severe hemophilia A, a serious genetic bleeding disorder caused by missing or defective Factor VIII in the blood stream.

In December 2017, Sernova announced it received US Food and Drug Administration (FDA) notice of allowance for its IND for a new human clinical trial with the Cell Pouch System™ (CPS) in the United States. Sernova plans to initiate the new clinical trial under this US IND to further investigate the Cell Pouch for treatment of type 1 diabetes (T1D) in individuals with hypoglycemia unawareness. The trial is a Phase I/II prospective single arm study of islets transplanted into patients having previously received the subcutaneously implanted Cell Pouch™. The primary objective of the study is to demonstrate safety and tolerability of islet transplantation into the Cell Pouch and the secondary objective is to assess efficacy through a series of defined measures. Patient enrolment is set to begin following institutional review board (IRB) clearance.

Research and Development Outlook for the 2018 Calendar Year

Our research and product development program for 2018 includes the following:

- Initiate a clinical trial of our Cell Pouch™ in the United States in collaboration with JDRF for patients with hypoglycemia unawareness using human donor islets and a standard of care antirejection drug regimen to further study the safety and efficacy of the device and islets.
- Continue clinical evaluation of the Cell Pouch™ in patients with insulin-dependent diabetes who have received an islet transplant;
- Conduct IND-enabling cell production and preclinical studies for treatment of hemophilia A consisting of factor VIII releasing therapeutic cells transplanted within Sernova's Cell Pouch™;
- Conduct IND-enabling preclinical studies for treatment of hypo-thyroid disease consisting of thyroid hormone releasing tissue transplanted within Sernova's Cell Pouch™;
- Production of human stem cell derived cells for diabetes *in vivo* proof of principle assessment of these differentiated human stem cells for their safety and efficacy within Sernova's Cell Pouch™ for the treatment of insulin-dependent diabetes;
- Assessment of novel microencapsulation technologies within the Cell Pouch™ cells, to further develop and advance Sernova's therapeutic vision for diabetes of a product consisting of locally immune protected therapeutic cells within the Cell Pouch™; and,
- Continue to collaborate with pharmaceutical companies to assess safety and efficacy of our combined technologies in preclinical studies for potential negotiation of a licensing arrangement and commercial development partnership for our hemophilia and diabetes programs.

Sernova's Cell Pouch System™

The Cell Pouch™ was uniquely designed and patented to take into consideration the biological requirements of therapeutic cells. Our research demonstrates that a tissue matrix rich in microvessels develops within the Cell Pouch™ environment when implanted subcutaneously or in other locations prior to transplantation of therapeutic cells. We believe the Cell Pouch™ provides a unique and ideal environment consisting of vascularized tissue chambers for the placement of therapeutic cells for the potential treatment of diabetes, hemophilia and other diseases. In long-term pre-clinical evaluation, the Cell Pouch™ has been shown to maintain a stable, vascularized tissue environment prior to placement of these transplanted therapeutic cells. We believe these conditions are key for maintaining long-term survival and function of therapeutic cells. We have demonstrated in a series of ISO10993 biocompatibility studies and multiple animal studies that the Cell Pouch™ is biocompatible and safe. Long-term studies in multiple animal models have demonstrated that the islets become well-supported with microvessels as in their natural pancreatic environment following islet transplantation into the Cell Pouch™.

An independent pre-clinical study published in the journal Transplantation (Transplantation 2015 Nov: 99 (11):2294-300) demonstrated that the Cell Pouch™ with islets provided insulin independence for the length of the study (100 days) in a small animal model of diabetes using a marginal transplanted islet mass where over 95% of the animals achieved insulin independence. This study supports the concept that the Cell Pouch™ may require a smaller than anticipated number of cells to achieve efficacy, one of the parameters under consideration for further human clinical evaluation to achieve glucose control in patients with diabetes.

Benefits of the Cell Pouch™ are anticipated to be enhanced long-term islet graft survival and function. It is important for islets to have close contact with microvessels to monitor blood glucose levels and produce the appropriate amount of insulin throughout the day and night and after meals. We believe the Cell Pouch™ technologies achieve this ideal islet/microvessel connection through alteration of the subcutaneous environment and should allow for improved glucose control. Our studies have shown that islets transplanted into the Cell Pouch™ can control glucose levels in small and large animal models of diabetes over extended periods.

Clinical Development of the Cell Pouch™ in Diabetes

Sernova's lead program is the clinical development of the Cell Pouch™ for treatment of patients with insulin-dependent diabetes. A proof of concept, first in human clinical study to evaluate the Cell Pouch™ with human donor islets, in insulin-dependent diabetic subjects with hypoglycemia unawareness who are receiving islet transplantation, has demonstrated initial safety data for the Cell Pouch™ alone and with transplanted islets and survival of the well-vascularized islets within the Cell Pouch™. Furthermore, histological analysis demonstrated that islets transplanted into Sernova's Cell Pouch™ are able to make insulin, glucagon and somatostatin, key hormones in the control of blood glucose levels. With these encouraging results, the Company was awarded a US$2.45 million (approximately $3.2 million) grant under an agreement with JDRF. The grant will support expansion of our Cell Pouch™ diabetes clinical trials program in the United States. The Edmonton Protocol is the current standard of care cell-based treatment for insulin-dependent diabetic patients with hypoglycemia unawareness that involves infusing donor pancreatic islets, often from multiple donors, into a patient's liver portal vein, followed by life-long administration of immunosuppressive drugs to inhibit rejection of the transplant. Overall, benefits of islet transplantation may include a reduction in the incidence of hypoglycemia unawareness, a reduced requirement for exogenous insulin and reduced diabetes-induced microvascular damage and potential insulin independence. It is believed, however, following islet infusion that with portal vein delivery of islets, there is an initial significant reduction in surviving islets due to an immediate blood-mediated inflammatory reaction ("IBMIR"), which may damage and destroy a significant proportion of the islets infused into the portal vein. Due to IBMIR and other factors, up to three pancreata are required to treat a single patient and achieve a reduction in insulin injections using the Edmonton Protocol. In addition, the proportion of patients with insulin-independence decreases over time likely due to continued islet destruction with multiple etiologies. A further limitation is that infusion of cells into the portal vein is limited to donor islets and is not amenable to advanced technologies such as glucose-responsive insulin producing stem cell derived cells or xenogeneic cells being developed to overcome the limited supply of donor islet cells, as these cell technologies must be transplanted into an implantable and retrievable medical device for safety reasons.

We believe IBMIR may also be mitigated, using the Cell Pouch™. The therapeutic cells live within a tissue matrix surrounded by microvessels similar to the islets' natural microenvironment in the pancreas rather than being subjected to a constant flow of blood with immune reactive cells. This reduced inflammatory response should enable improved islet survival and potentially lead to the need to implant fewer islets or other sources of insulin producing cells. This could potentially enable patients with diabetes to be treated with fewer donor pancreata than are currently being used in the Edmonton Protocol.

The Cell Pouch™ enables islets to be transplanted subcutaneously or even in the omentum space, which we believe will offer significant advantages over portal vein delivery as it can be monitored, imaged and if required, retrieved and replaced. Known side effects from infusion of cells into the portal vein such as portal vein hypertension, thrombosis, and liver steatosis (fatty liver), along with the costs of treating them, will be eliminated as cells will not be placed in this location.

Our current Cell Pouch™ clinical trials employ standard systemic immune protection regimens; however, the Cell Pouch™ may also accommodate local immune protection of therapeutic cells. Local immune protection of islets within the cell pouch using technologies such as microencapsulation could result in a significant reduction or elimination of the need for antirejection drugs and their ongoing prohibitive costs, as well as associated healthcare costs related to side effects of these drugs. In addition, local immune protection may provide a safer environment for the transplanted islets. The Cell Pouch™ is believed to be an ideal environment to support microencapsulated cells as the encapsulated cells are housed within the vascularized tissue matrix allowing vessels to be in very close contact with the islets. This has been demonstrated in our preclinical studies of encapsulated islets.

Finally, the Cell Pouch™ could be used with a variety of sources of cells, such as glucose responsive insulin producing cells derived from stem cells or xenogeneic cells, addressing the limited availability of donors and allowing the widespread treatment of insulin-dependent diabetes. Thus, we believe our approach and its ease of use may provide an opportunity for the Cell Pouch™ to become the standard of care in therapeutic cell transplantation, if it proves to be safe and effective in clinical trials. Sernova believes it has the only such device technology of its kind in which therapeutic cells have been proven to survive in a tissue matrix integrated with microvessels in close association with the therapeutic cells.

In our human clinical trial, subjects have been implanted with the Cell Pouch™, which is allowed to incorporate with tissue and microvessels prior to transplantation of donor human islets. In this first-in-human study in a small group of patients, to prevent islet graft rejection, patients have been treated with the state of the art standard of care Alemtuzumab-induction protocol and provided maintenance immunosuppression.

Our results have shown the following important findings:

- First, biocompatibility and a positive safety profile of the Cell Pouch™ have been shown in these patients. Safety is the primary endpoint of the clinical study; and
- Second, the islets within the Cell Pouch™, as shown by independent histological analysis, are well-vascularized, living within a natural tissue matrix and are able to make insulin, glucagon and somatostatin, key hormones in the control of blood glucose levels. We believe such revascularization of islets and islet metabolic function within an implantable medical device for therapeutic cells in humans in this patient population is an important step forward in the regenerative medicine field.

Based on the encouraging results from this study and our other preclinical studies, we believe Sernova's Cell Pouch™ may form a suitable environment for the survival and function of multiple types of therapeutic cells for a range of diseases.

With these initial findings, we have established a collaboration through a grant from JDRF to continue human clinical evaluation of the Cell Pouch™ with human donor islets in the United States. Furthermore, we have filed documents to initiate a human clinical study in the United States and have received FDA clearance to begin this study. The study will be initiated following institutional review board clearance, expected to occur in early 2018.

Developing the Cell Pouch™ for Other Indications

Hemophilia

As part of our strategy to develop the Cell Pouch™ for various therapeutic indications, we are evaluating Sernova's Cell Pouch™ for the treatment of patients with hemophilia A.

One such approach involves taking a small blood sample from the patient, correcting the genetic defect in isolated cells and then expanding the cell numbers for placement into Sernova's Cell Pouch™ for constant release of factor VIII. Initial proof of concept studies have been conducted by Sernova and a European team of experts formed the HemAcure consortium ("The Consortium"). The Consortium was successful in obtaining €5.6 million (approximately $8.5 million), funded by a European Commission's Horizon 2020 grant, to develop a GMP human cell product suitable for human clinical testing for the completion of safety and efficacy studies in the Cell Pouch™ as part of a regulatory package in preparation for human clinical testing.

New Cell Pouch™ Indications for Metabolic Disorders

As the Company continues its work on the diabetes and hemophilia indications, we are exploring new indications to further expand the application of our cell therapy platform technologies including for the treatment of hypo-thyroid disease.

Local Immune Protection & Other Complementary Technologies

To broaden Sernova's local immune protection technologies, we continue to evaluate additional advanced technologies such as microencapsulation to reduce or eliminate the need for antirejection medications. We believe that microencapsulation of therapeutic cells within the Cell Pouch™ may provide a means to contain therapeutic cells within the Cell Pouch™ while providing close association of therapeutic cells with the required microvessels and tissue matrix. We believe this will enable long-term survival and function of cells for our disease indications.

Alternative Sources of Cells

Our transplantation technologies may incorporate autologous cells, donor cells or other sources of cells including therapeutic cells derived from human stem cells or derived from xenogeneic sources, depending on the clinical indication under evaluation. As such, we will continue to work with academic collaborators and industry partners to identify and secure the required cells for our therapeutic indications. In this regard, Sernova has signed a license agreement with the UHN to gain access to worldwide, exclusive rights to certain patent-pending technologies for the advancement of glucose-responsive insulin-producing stem cells for treatment of patients with insulin-dependent diabetes. Process development and robust cell-production processes will provide a high standard of production of cells which consistently meets strict release criteria for evaluation of these cells in Sernova's Cell Pouch™.

Sernova is also committed to working with pharmaceutical and academic partners to evaluate various insulin-producing cell technologies using different approaches, with the goal of combining Sernova and partner technologies to create best in class products. In this regard, Sernova has signed a number of agreements to test and evaluate several insulin-producing cell technologies in our Cell Pouch™. The Company entered into a collaboration with an international pharmaceutical company to study Sernova's Cell Pouch™ in a large animal diabetes model. The collaboration involves the study of safety, survival and efficacy of locally immune protected therapeutic cells in our Cell Pouch™ in proof of concept studies with the goal to establish a future development and commercial partnership. Sernova plans to continue to develop multiple collaborations with pharmaceutical companies for its diabetes and hemophilia indications for establishment of potential long-term licensing and co-development relationships.

Manufacturing

Our contract manufacturer has successfully cGMP manufactured both our Cell Pouch™ and mini-Cell Pouch™ technologies for preclinical and clinical evaluation. In order to complete the manufacturing, device specifications have been set, a semi-automated manufacturing process developed and the product manufactured, packaged and sterilized under strict regulatory guidelines suitable for testing in clinical trials in North America and Europe. Sterilization verification studies were completed and the product previously released for testing in our human clinical trial in Canada with Sernova's ITA under the jurisdiction of Health Canada. A two-year packaging and product stability study has also been successfully completed demonstrating stability of the product and packaging over this time-period. Over the past year we have successfully transferred manufacturing processes to our current contract manufacturer for continued cGMP production of Sernova's products. Through our agreements this company has committed to continue to manufacture Sernova's Cell Pouch™ products under Sernova's strict specifications under cGMP to ensure ongoing product availability for its non-clinical and clinical indications.

Intellectual Property

Our patent portfolio currently consists of issued and pending patents in eight families covering our enabling platforms in important markets in North America, Europe and Asia. We strive to obtain broad claims in our patents, including exclusivity of our Cell Pouch™ device and related technologies in combination with a wide range of therapeutic cell technologies including glucose-responsive insulin producing stem cell derived cells and for the treatment of a number of chronic diseases. We intend to continue to expand our patent and licensing portfolio, through inventions developed internally as well as through strategic in-licensing, to maximize the commercial potential for our platform technologies.

RESULTS OF OPERATIONS

Selected Financial Information

Selected financial information from the statements of loss and comprehensive loss for the three months and years ended October 31, 2017 and 2016, were as follows:

	Three months ended October 31,		Years ended October 31,	
	2017	2016	2017	2016
Research and development expenses	$ 677,876	$ (73,893)	$ 1,544,852	$ 1,199,346
General and administrative expenses	315,382	265,859	1,098,569	1,302,222
Loss and comprehensive loss for the period	$ 977,731	$ 166,308	$ 2,639,479	$ 2,499,622

For the three months ended October 31, 2017, the Company recorded a loss of $977,731, compared to $166,308 in the prior year. The loss for the three months ended October 31, 2016 was unusually low due to funding received from the European Commission's Horizon 2020 grant and an initial funding payment from JDRF Therapeutics Fund.

For the year ended October 31, 2017, the Company recorded a loss of $2,639,479, compared to $2,499,622 in the prior year. The increased loss was due to increased research and development expenses incurred in the current year.

Research and Development Expenses

Research and development expenditures for the three months and years ended October 31, 2017 and 2016, were as follows:

	Three months ended October 31,		Years ended October 31,	
	2017	2016	2017	2016
Employee costs, supplies and contract payments	$ 417,292	$ 389,554	$ 1,601,045	$ 1,477,661
Manufacturing costs	273,692	-	345,109	-
Patent fees and costs	127,584	49,559	283,226	211,706
Depreciation of property and equipment	12,967	1,776	36,916	7,104
Share-based compensation	86,495	77,649	242,357	299,124
	918,030	518,538	2,508,653	1,995,595
Contributions and tax credits	(240,154)	(592,431)	(963,801)	(796,249)
Total	$ 677,876	$ (73,893)	$ 1,544,852	$ 1,199,346

Total research and development expenses, for the three months ended October 31, 2017 increased by $751,769 compared to the equivalent period of the prior fiscal year. Excluding the impact of funding received, research and development expenses amounted to $918,030 during the three months ended October 31, 2017, an increase of $399,492. Employee costs, supplies and contract payments, for the three months ended October 31, 2017 increased by $27,738 compared to the equivalent period of the prior fiscal year. The increase was due to higher professional fees. During the three months ended October 31, 2017 the Company incurred $273,692 for

materials and consulting fees regarding Sernova's Cell Pouch™ manufacturing processes related to Sernova's preclinical and clinical programs. Patent fees and costs for the three months ended October 31, 2017, increased by $78,025 due to higher patent development expenses. Depreciation of property and equipment increased by $11,191 due to the purchase of laboratory and manufacturing equipment during fiscal 2017. Contributions and tax credits decreased by $352,277 due to the initial funding payment received from JDRF in the three months ended October 31, 2016 with no corresponding amount in 2017.

Total research and development expenses, for the years ended October 31, 2017, increased by $345,506 compared to the equivalent period of the prior fiscal year; however, excluding the impact of funding received, research and development expenses increased by $513,058. Employee costs, supplies and contract payments, for the year ended October 31, 2017, increased by $123,384, compared to the prior year. The increase was due to a combination of higher employee costs and higher research and development related professional fees. The Company incurred $345,109 in the years ended October 31, 2017 in materials and consulting fees regarding Sernova's Cell Pouch™ manufacturing processes related to Sernova's preclinical and clinical programs. Patents costs increased by $71,520 due to higher patent development expenses. Depreciation increased by $29,812 due to the purchase of computer and laboratory equipment in the year ended October 31, 2017. Share-based compensation for the year ended October 31, 2017, decreased by $56,767, due to the higher expense associated with the initial vesting of the DSU's in the same period of the prior year. Contributions and tax credits increased by $167,552 due to a payment received from a collaboration with an international pharmaceutical company and increased recognition of funding from the European Commission's Horizon 2020 program during the year ending October 31, 2017.

General and administrative expenses

General and administrative costs for the three months and years ended October 31, 2017 and 2016, were as follows:

	Three months ended October 31,		Years ended October 31,	
	2017	2016	2017	2016
Employee costs and consulting fees	$ 49,653	$ 65,186	$ 268,475	$ 397,824
Professional fees	77,141	21,643	137,540	79,382
Director fees and benefits	25,454	25,453	102,387	101,749
Investor relations	55,300	44,255	210,722	198,563
Travel and other costs	47,254	26,148	178,391	153,175
Depreciation of property and equipment	1,571	115	2,950	460
DSU's issued for director compensation	16,502	29,981	79,509	130,459
Share-based compensation	42,507	53,078	118,595	240,610
Total	$ 315,382	$ 265,859	$ 1,098,569	$ 1,302,222

Total general and administrative expenses, for the three months ended October 31, 2017 increased by $49,523, as compared to the prior year. Professional fees increased by $55,498 due to tax related consulting expenses. Travel and other costs increased by $21,106, largely due to servicing of company information technology systems. Investor relations expenses increased by $11,045 due to the hiring of a new IR firm to focus on the US market.

Total general and administrative expenses, for the years ended October 31, 2017, decreased by $203,653, as compared to the prior year. Employee costs and consulting fees decreased by $129,349 as a result of higher financial advisory fees incurred in the prior year associated with the private placement completed in June

2016. Professional fees increased by $58,158 due to tax related consulting expenses. DSU's issued for director compensation and share-based compensation for the years ended October 31, 2017, decreased by $172,965 due to the higher expenses associated with the initial vesting of the DSU's in the prior year.

Other items

	Three months ended October 31,		Years ended October 31,	
	2017	2016	2017	2016
Finance income	$ (11,023)	$ (9,054)	$ (54,158)	$ (30,113)
Finance costs	2,799	2,656	13,835	9,693
Foreign exchange (gain) loss	(7,323)	(19,260)	36,381	18,474
Net Finance Income	$ (15,547)	$ (25,658)	$ (3,942)	$ (1,946)

Finance income
Finance income, represented primarily by interest income earned on the Company's cash and marketable securities, was $11,023 and $54,158 for the three months and year ended October 31, 2017, compared to $9,054 and $30,113 for the same periods in the prior year. The increases result from higher average balances of cash and marketable securities resulting from the Company's June 2016 private placement, consortium payments and grants received.

Finance costs
Finance costs, represented primarily by bank charges were $2,799 and $13,835 for the three months and years ended October 31, 2017, compared to $2,656 and $9,693 for the same periods in the prior year. The increase is due to a change in the Company's investment holdings to highly liquid short term instruments.

Foreign exchange gains and losses
Foreign exchange gains of $7,323 for the three months ended October 31, 2017 were due to strengthening of the USD while holding US dollar cash balances. During the year ended October 31, 2017, US dollar foreign exchange rates have weakened relative to the Canadian dollar, resulting in a loss of $36,381 for 2017. The prior year loss of $18,474 was primarily due to losses incurred from a €566,507 payment received related to the European Commission's Horizon 2020 grant in January 2016.

Income taxes
Income taxes have not been recognized in profit and loss to date, as the Company has been incurring losses since inception, and it is not probable that future taxable profits will be available against which the accumulated tax losses can be utilized. Accordingly, the Company has substantial deferred tax assets that have not been recognized in the financial statements that would be available to shelter potential future taxable income from income taxes. See Note 11 to the Company's audited consolidated financial statements for the years ended October 31, 2017 and 2016, for further details related to the Company's income tax position.

LIQUIDITY AND CAPITAL RESOURCES

Selected financial information from the statements of financial position as at October 31, 2017 and 2016, were as follows:

As at	October 31, 2017	October 31, 2016
Cash and marketable securities	$ 3,631,887	$ 5,899,451
Total assets	4,551,518	6,225,244
Current liabilities	901,066	846,274
Share capital, warrants and contributed surplus	38,442,657	37,531,696
Deficit	$(34,792,205)	$(32,152,726)

As at October 31, 2017, the Company had cash and marketable securities of $3.6 million compared to $5.9 million as at October 31, 2016. Management believes the Company has sufficient working capital to maintain its operations for at least the next twelve months.

The Company does not have any debt or credit facilities.

Financing Activities

For the year ended October 31, 2017, 2,695,000 stock options were exercised for gross cash proceeds of $470,500. For the year ended October 31, 2016, 1,398,750 stock options were exercised for cash proceeds of $215,613 and 131,528 warrants were exercised for cash proceeds of $39,458.

In December 2015, the Company was awarded a €5.6 million (approximately $8.5 million) non-dilutive grant by the European Commission's Horizon 2020 program, as part of a consortium. The Company expects to receive total funding in the amount of €944,178 (approximately $1.4 million), representing its portion of the grant, based upon the terms of the grant agreement. In January 2016, the Company received an initial funding payment related to the grant in the amount of €566,507 ($873,213). In November 2017, the Company received an interim payment in the amount of €226,603 ($331,770). Expenditures incurred by the Company related to the grant to October 31, 2017 amounted to $767,383 leaving $437,600 of the grant received as deferred grants, which will be recognized against future expenditures covered by the grant.

In June 2016, the Company completed a non-brokered private placement for gross cash proceeds of $4,200,000. The offering consisted of 16,800,000 units sold at a price of $0.25 per unit. Each unit consisted of one common share and one common share purchase warrant, with each warrant entitling the holder to purchase one common share of the Company for a period of 24 months at a price of $0.35 per share, subject to abridgement of the exercise period (after the expiry of the 4 month hold period) with 30 days' notice to holders in the event that the twenty-day volume weighted price of the Company's common shares exceeds $0.50. The warrants were ascribed a value of $nil representing the difference between the issue price of the units and the fair market value of the shares received as part of the offering costs associated with the private placement totaled $258,324, including cash fees of $200,121 and the issue of 521,850 finder's warrants valued at $58,203, which have been deducted from the gross proceeds. Each finder's warrant entitles the holder to purchase one common share of the Company for a period of 24 months at a price of $0.35 per share, subject to the same hold and abridgement conditions as the warrants included in each unit of the offering.

In July 2016, the Company was awarded a US$2.45 million (approximately $3.2 million) grant under an agreement with JDRF. The grant supports a human clinical trial of Sernova's Cell Pouch™ technologies for treatment of hypoglycemia unawareness patients with severe type 1 diabetes at a major transplantation center in the United States. Pursuant to the agreement with JDRF, the Company has committed to perform certain

clinical trial activities and to use commercially reasonable efforts to introduce a diabetes product into a major market. Further, the agreement creates a commitment for repayment by the Company following successful commercialization of a diabetes product. In August 2016, the Company received an initial funding payment from JDRF in the amount of US$367,768 ($480,783) as per the terms under the agreement.

In October 2016, the Company entered into a collaboration with an international pharmaceutical company regarding a material transfer agreement to study Sernova's Cell Pouch safety, survival and efficacy of locally immune protected therapeutic cells in a large animal diabetes model. This agreement included 50% cost sharing for the agreed studies. The first payment in the amount of US$185,778 ($249,611) was received by the Company in December 2016.

Historically, funding requirements have been met through the issuance of common shares from treasury and common share purchase warrants that are converted into common shares upon exercise. Management regularly monitors the capital markets and attempts to balance timing of new equity issues with the progress of our research and clinical development plan, general market conditions, and availability of capital. In addition, management actively targets additional sources of capital, such as grants and contributions, as well as collaborative partners which would assist in progressing our operations and research and clinical development programs.

We anticipate the cash requirements to fund our planned activities for fiscal 2018 will increase over the previous year. Our actual cash requirements for fiscal 2018 will depend on the clinical, pre-clinical, and collaboration activities that we ultimately undertake and the ability to secure partners, and non-dilutive funding in the form of government grants.

The audited consolidated financial statements have been prepared using IFRS that are applicable to a going concern, which contemplates the realization of assets and settlement of liabilities in the normal course of business for the foreseeable future. The Company has experienced operating losses and cash outflows from operations since its inception, and accordingly, it will require ongoing financing in order to continue its research and development activities. In addition, it has not yet earned significant revenue or reached successful commercialization of its products. The Company will seek new funding from additional equity financings and/or licensing agreements and collaboration arrangements with development partners; however, there is no assurance that these funding initiatives will be successful.

Common Shares

The following table reflects the changes in the number of issued common shares from year ended October 31, 2016 to the date of this MD&A:

	Number of Common Shares
Balance as at October 31, 2016	156,679,498
Shares issued on the exercise of stock options	2,695,000
Balance as at October 31, 2017	159,374,498
Shares issued on the exercise of stock options	53,125
Shares issued on the exercise of warrants	465,600
Balance as at the date of this MD&A	159,893,223

Warrants

The following table reflects the changes in the number of issued warrants from the year ended October 31, 2016 to the date of this MD&A:

	Number of Warrants	Weighted Average Exercise Price
Balance as at October 31, 2016	26,216,362	$ 0.33
Expired	(105,623)	0.33
Balance as at October 31, 2017	26,110,739	$ 0.33
Expired	(8,788,889)	0.30
Exercised	(465,600)	0.35
Balance as at the date of this MD&A	16,856,250	$ 0.35

The warrants outstanding as at October 31, 2017 are described in Note 7 to the audited consolidated financial statements for the years ended October 31, 2017 and 2016.

2015 Incentive Plan

The Company has a 2015 Incentive Plan (the "Plan"), the terms of which were most recently approved by shareholders of the Company on April 26, 2017. The Plan includes both stock options and deferred share units ("DSU's"). Further details on the Company's 2015 Incentive Plan are provided in Note 7 to the audited consolidated financial statements for the years ended October 31, 2017 and 2016.

The following table reflects the changes in the number of issued stock options from the year ended October 31, 2016 to the date of this MD&A:

	Number of Options	Weighted Average Exercise Price
Balance as at October 31, 2016	10,436,100	$ 0.19
Granted	3,985,000	0.25
Cancelled/forfeited	(1,177,500)	0.22
Exercised	(2,695,000)	0.17
Balance as at October 31, 2017	10,548,600	0.23
Exercised	(53,125)	0.19
Cancelled/forfeited	(606,875)	0.24
Balance as at the date of this MD&A	9,888,600	$ 0.23

The following table reflects the changes in the number of issued deferred share units (DSU's) from the most recent year ended October 31, 2016 to the date of this MD&A:

	Number of DSU's
Balance as at October 31, 2016	1,075,000
Granted	239,778
Balance as at October 31, 2017 and the date of this MD&A	1,314,778

On August 14, 2017, Sernova's Board of Directors also approved an amendment to the Company's Option Plan & Deferred Share Unit Plan (the "Amended Plan") to increase the number of DSUs available by 660,222 to a maximum of 1,975,000. These additional DSUs were conditionally approved and granted subject to the Company obtaining shareholder approval and TSX Venture Exchange approval.

COMMITMENTS AND CONTINGENCIES

The Company expects to pay certain future costs related to its pre-clinical and clinical trials. Such payments are expected to include the cost of clinical staff and overhead thereon, trial insurance, and may include travel and a portion of drug or procedure–related expenses or transplantation expenses not covered by insurance. The total payments over the duration of the trial will be impacted by such factors as the rate of enrollment, the location in which the patient resides and the specifics of patient insurance.

By participating in the HemAcure consortium and accepting grant funding, the Company has committed to perform certain product development activities, as outlined in the grant agreement with the European Commission's Horizon 2020 program. While it is anticipated that the funding that has been received and further funding expected to be received by the Company will cover most of the costs expected to be incurred related to the planned product development activities, the actual amount of effort and the related costs may differ from what was expected and may be more than the maximum amounts the European Commission has agreed to cover. Accordingly, any excess costs required to complete the activities would become the Company's responsibility. Under the grant agreement, consortium members may also shift the funding allocated under the grant between members in order to cover excess costs, so the Company may ultimately receive a different amount of funding than currently expected. The project is subject to a number of risks and uncertainties, and in particular the risks outlined under the risk factor titled '*Dependence on collaborative partners, licensors, contract manufacturer and others',* please refer to the risk factors discussed elsewhere in this MD&A.

In July 2016, the Company was awarded a US$2.45 million (approximately $3.2 million) grant under an agreement with JDRF. The grant supports a human clinical trial of Sernova's Cell Pouch™ for treatment of patients with type 1 diabetes at a major transplantation center in the United States. In August 2016, the Company received an initial funding payment from JDRF in the amount of US$367,768 ($480,783) as per the terms under the agreement. In November 2017, the Company received an interim payment in the amount of €226,603 ($331,770). Pursuant to the agreement with JDRF, the Company has committed to perform certain clinical trial activities and to use commercially reasonable efforts to introduce a diabetes product into a major market. Further, the agreement creates an obligation for the Company to pay royalties to JDRF on any future net sales received by the Company from a diabetes product or in certain future license or disposition transactions limited to a certain percentage of funds received over time up to a prescribed limit related to the amount of the grant funding.

In October 2016, the Company entered into a collaboration with an international pharmaceutical company regarding a material transfer agreement to study Sernova's Cell Pouch safety, survival and efficacy of locally immune protected therapeutic cells in a large animal diabetes model. Pursuant to the collaboration agreement, the Company has committed to perform certain pre-clinical activities. This agreement included 50% cost sharing for the agreed studies. A reimbursement payment in the amount of US$185,778 ($249,611) was received by the Company in December 2016.

The Company entered into a three year lease effective September 1, 2017. Notwithstanding the term, the Company has the right to terminate the lease after the first anniversary by providing 90 days' written notice. Gross payments required under the new lease for the fiscal year ending 2018 amounts to $115,282.

RELATED PARTY TRANSACTIONS

The key management personnel of the company are the Directors, the President and Chief Executive Officer and the Chief Financial Officer.

Amounts due to related parties, including amounts due to key management personnel, at the period-end are unsecured, interest free and settlement generally occurs in cash. There have been no guarantees provided or received for any related party receivables or payables. Included in accounts payable and accrued liabilities at October 31, 2017 was $64,520 due to key management personnel (October 31, 2016 – $3,564).

Compensation to key management personnel for the three months and years ended October 31, 2017 and 2016, was as follows:

	Three months ended October 31,		Years ended October 31,	
	2017	2016	2017	2016
Salaries, benefits and consulting fees	$ 151,419	$ 96,900	$ 453,618	$ 523,808
Director fees and benefits	27,433	24,985	102,387	100,766
DSU's issued for director compensation	16,502	29,982	79,509	130,459
Share-based compensation	67,067	54,707	129,955	223,632
Total	$ 262,421	$ 206,574	$ 765,469	$ 978,665

Executive officers and directors participate in the Company's 2015 Incentive Plan, so they are eligible to receive stock options and deferred share units. Executive officers also participate in the Company's health benefits plan.

SELECTED FINANCIAL INFORMATION

Selected financial information from the statements of loss and comprehensive loss for the three months and years ended October 31, 2017, 2016 and 2015 were as follows:

	Three months ended October 31,			Years ended October 31,		
	2017	2016	2015	2017	2016	2015
Revenue	$ -	$ -	$ -	$ -	$ -	$ -
Loss for the year	977,731	166,308	866,116	2,639,479	2,499,622	2,859,477
Basic and diluted loss for the year	0.01	0.00	0.01	0.02	0.02	0.02
Total assets	4,551,518	6,225,244	3,153,299	4,551,518	6,225,244	3,153,299
Total long-term financial liabilities	$ -	$ -	$ -	$ -	$ -	$ -

SUMMARY OF QUARTERLY RESULTS

Selected quarterly data with respect to the statement of loss and comprehensive loss is set out below:

Fiscal Year		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
2017	Net loss	$ 317,524	$ 638,431	$ 705,793	$ 977,731
	Net loss per share	$ 0.00	$ 0.00	$ 0.00	$ 0.01
2016	Net loss	$ 676,450	$ 691,917	$ 964,947	$ 166,308
	Net loss per share	$ 0.00	$ 0.01	$ 0.01	$ 0.00
2015	Net loss	$ 630,294	$ 676,212	$ 666,855	$ 886,116
	Net loss per share	$ 0.00	$ 0.01	$ 0.00	$ 0.01

The loss in first quarter is reflective of the Company receiving a payment of $249,611 from a collaboration with an international pharmaceutical company regarding a material transfer agreement to study Sernova's Cell Pouch safety, survival and efficacy of locally immune protected therapeutic cells in a large animal diabetes model. The 2017 third and fourth quarter losses include manufacturing expenses of $42,389 and $273,692 respectively, which had no corresponding amounts in other periods.

It is important to note that historical patterns of expenditures cannot be taken as an indication of future expenditures. The amount and timing of expenditures, and therefore liquidity and capital resources, may vary substantially from period to period depending on the business and research activities being undertaken at any one time and the availability of funding from investors and prospective collaborative partners.

EVENTS AFTER THE REPORTING PERIOD

In December 2017, Sernova announced it received US Food and Drug Administration (FDA) notice of allowance for its IND for a new human clinical trial with the Cell Pouch System (CPS) in the United States. Sernova plans to initiate the new clinical trial under this US IND to investigate the Cell Pouch for treatment of type 1 diabetes (T1D) in individuals with hypoglycemia unawareness. The trial is a Phase I/II prospective

single arm study of islets transplanted into the subcutaneously implanted Cell Pouch. The primary objective of the study is to demonstrate safety and tolerability of islet transplantation into the Cell Pouch and the secondary objective is to assess efficacy through a series of defined measures. Patient enrolment is set to begin following institutional review board (IRB) clearance.

OFF-BALANCE SHEET ARRANGEMENTS

We do not have any off-balance sheet arrangements.

QUANTITATIVE & QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Fair value

IFRS 13 *Fair Value Measurement* provides a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs are those which reflect market data obtained from independent sources, while unobservable inputs reflect the Company's assumptions with respect to how market participants would price an asset or liability. These two inputs used to measure fair value fall into the following three different levels of the fair value hierarchy:

- Level 1 Quoted prices in active markets for identical instruments that are observable.
- Level 2 Quoted prices in active markets for similar instruments; inputs other than quoted prices that are observable and derived from or corroborated by observable market data.
- Level 3 Valuations derived from valuation techniques in which one or more significant inputs are unobservable.

The hierarchy requires the use of observable market data when available.

The Company has classified its cash and marketable securities as Level 1.

Cash, marketable securities, amounts receivable, accounts payable and accrued liabilities, due within one year, are all short-term in nature and, as such, their carrying values approximate fair values.

Risks

We are exposed to credit risk, liquidity risk, interest rate risk and foreign currency risk. Our Board of Directors has overall responsibility for the establishment and oversight of our risk management framework. The Audit Committee is responsible for reviewing our risk management policies.

Credit risk

Credit risk is the risk of loss to the Company if a counterparty to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to cash and marketable securities and there is additional risk since those financial instruments are primarily held by a single counterparty. Management believes the risk of the counterparty, a Canadian Schedule A bank, failing to meet its obligations related to the cash and marketable securities held by the Company is remote. Amounts receivable are primarily composed of amounts due from the Canadian federal government.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company is a development stage company and is reliant on external fundraising to support its operations. Once funds have been raised, the Company manages its liquidity risk by investing in cash and marketable

securities to provide regular cash flow for its operations and monitoring actual and projected cash flows. As at October 31, 2017 and 2016, the Company had cash, cash equivalents and marketable securities of $3,631,887 and $5,889,451, respectively which are available to settle current liabilities of $901,066 and $846,274, respectively. The majority of the Company's accounts payable and accrued liabilities are due within three months or less.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company holds its cash in bank accounts or guaranteed investment certificates with a fixed rate of interest and multiple maturity dates. The Company manages its interest rate risk by holding highly liquid short-term instruments. For the years ended October 31, 2017 and 2016, the Company earned interest income of $54,158 and $30,113, respectively. Interest income is not significant to the Company's projected operational budget. A 100 basis point change in the interest rate on cash and marketable securities for the year ended October 31, 2017 and 2016, would have a net impact on finance income of $36,319 and $58,995 respectively.

Foreign currency risk

The Company is exposed to foreign currency risk on fluctuations in foreign exchange rates for any cash, amounts receivable, accounts payable, accrued liabilities and deferred grants that are denominated in foreign currencies. The Company's foreign currency risk is related to expenses denominated in United States dollars and Euros.

In December 2015, the Company was awarded a €5.6 million (approximately $8.5 million) non-dilutive grant by the European Commission's Horizon 2020 program, as part of a consortium. The Company expects to receive total funding in the amount of €944,178 (approximately $1.4 million), representing its portion of the grant, based upon the terms of the grant agreement. In January 2016, the Company received an initial funding payment related to the grant in the amount of €566,607 ($873,213). In November 2017, the Company received an interim payment in the amount of €226,603 ($331,770). A 10% change in the foreign exchange rate between the Canadian and the Euro would result in a fluctuation of $27,444 in respect of the grant balance outstanding.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in conformity with IFRS requires the Company to make judgements, estimates and assumptions that affect the application of accounting policies, the reported amounts of assets, liabilities and expenses, as well as the Company's ability to continue as a going concern. The estimates and assumptions made are continually evaluated and have been based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Such estimates and assumptions are inherently uncertain. Actual results could differ materially from these estimates and assumptions. Revisions to estimates are recognized in the period in which the estimate is revised and may impact future periods. A summary of the Company's significant accounting policies and estimates under IFRS is found in Note 3 of the Company's audited consolidated financial statements for the years ended October 31, 2017 and 2016.

Management has applied significant estimates and assumptions to the following:

Valuation of share-based compensation
The Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected: option life, volatility, risk-free interest rate, forfeiture rates, stock option exercise behaviors, dividend yield and corporate performance. Changes in these assumptions affect the fair value estimate for share-based compensation. The assumptions and models used for estimating fair value for share-based payment transactions are discussed in Note 7 of the audited consolidated financial statements for the years ended October 31, 2017 and 2016.

INTERNAL CONTROLS OVER FINANCIAL REPORTING

As a result of the Company's limited administrative staffing levels, internal controls which rely on segregation of duties, in many cases, are not possible. Due to resource constraints and the present stage of the Company's development, the Company does not have sufficient size and scale to warrant the hiring of additional staff to address this potential weakness at this time. To help mitigate the impact of this, the Company is highly reliant on the performance of compensating procedures and senior management's review and approval.

As a venture issuer, the Company is not required to certify the design and evaluation of the Company's disclosure controls and procedure ("DC&P") and internal controls over financial reporting ("ICFR"), and as such has not completed such an evaluation. Investors should be aware that inherent limitations on the ability of the certifying officers of a venture issuer to design and implement, on a cost-effective basis, DC&P and ICFR as defined in NI 52-109, may result in additional risks to the quality, reliability, transparency and timeliness of interim and annual filings and other reports provided under securities legislation.

CHANGES IN ACCOUNTING POLICIES

New standards and interpretations not yet effective

Standards issued, but not yet effective up to the date of issuance of the Company's consolidated financial statements are listed below. This listing is of standards and interpretations issued, which the Company reasonably expects may be applicable at a future date. The Company intends to adopt those standards when they become effective.

Certain pronouncements were issued by the IASB or International Financial Reporting Interpretation Committee that are mandatory for annual periods beginning after January 1, 2016 or later periods. Many of these updates are not applicable or are inconsequential to the Company and have been excluded from the discussion below. The remaining pronouncements are being assessed to determine their impact on the Company's results and financial position.

IFRS 9 *Financial Instruments*
In October 2010, the IASB published amendments to IFRS 9 *Financial Instruments* ("IFRS 9") which provides added guidance on the classification and measurement of financial liabilities. In July 2014, the IASB issued its final version of IFRS 9, which completes the classification and measurement, impairment and hedge accounting phases of the IASB's project to replace IAS 39 *Financial Instruments: Recognition and Measurement*. The final standard is required to be applied for years beginning on or after January 1,

2018. Based upon current facts and circumstances, we do not expect our financial performance or disclosure to be materially affected by the application of the standard. Accordingly the Company has decided that it will choose early adoption of this standard, effective November 1, 2017.

IFRS 15 *Revenue from Contracts with Customers*
In May 2014, the IASB issued IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15"), which covers principles for reporting about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The new standard is required to be applied for years beginning on or after January 1, 2018. The Company has assessed the impact of this standard on the consolidated financial statements. Based upon current facts and circumstances, we do not expect our financial performance or disclosures to be materially affected by the application of the standard. Accordingly the Company has decided that it will choose early adoption of this standard, effective November 1, 2017.

IFRS 16 *Leases*
In January 2016, the IASB issued IFRS 16 *Leases* ("IFRS 16"), its new lease standard that requires lessees to recognize assets and liabilities for most leases on the statement of financial position. Lessees applying IFRS 16 will have a single accounting model for all leases, with certain exemptions. Lessor accounting is substantially unchanged. The new standard will be effective from January 1, 2019 with limited early application permitted. The Company is currently monitoring the development of this standard and assessing the impact that adoption of this standard may have on the consolidated financial statements.

RISKS AND UNCERTAINTIES

An investment in our common shares involves a high degree of risk and should be considered speculative. An investment in our common shares should only be undertaken by those persons who can afford the total loss of their investment. You should carefully consider the risks and uncertainties described below, as well as other information contained in this MD&A. The risks and uncertainties below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we believe to be immaterial may also adversely affect our business. If any of the following risks occur, our business, financial condition and results of operations could be seriously harmed and you could lose all or part of your investment. Further, if we fail to meet the expectations of the public market in any given period, the market price of our common shares could decline. We operate in a highly competitive environment that involves significant risks and uncertainties, some of which are outside of our control.

Investment Risk

Volatility of share price, absence of dividends and fluctuation of operating results. Market prices for the securities of biotechnology companies, including ours, have historically been highly volatile. In the year ended October 31, 2017, our common shares traded on the TSX Venture Exchange, at a high of $0.33 and a low of $0.14 per share (2016 – a high of $0.40 and a low of $0.21 per share). Factors such as fluctuation of our operating results, announcements of technological innovations, patents or new commercial products by us or our competitors, results of clinical testing, regulatory actions, or public concern over the safety of biopharmaceutical products and other factors could have a significant effect on the share price or trading volumes for our common shares. Our common shares have been subject to significant price and volume fluctuations and may continue to be subject to significant price and volume fluctuations in the future. We have not paid dividends to date and we do not expect to pay dividends in the foreseeable future.

Dilution. We may sell additional equity securities in future offerings, including through the sale of securities convertible into equity securities, to finance our operations, acquisitions or projects, and issue additional common shares if outstanding warrants or stock options are exercised, which may result in dilution. As of the date of this MD&A, we had 9.9 million outstanding stock options convertible into common shares with an average exercise price of $0.23 per share, 1,314,778 outstanding DSU's convertible into common shares and 17 million outstanding warrants convertible into common shares with an average exercise price of $0.35 per share.

Our board of directors has the authority to authorize certain offers and sales of additional securities without the vote of, or prior notice to, shareholders. Based on the need for additional capital to fund expected expenditures and growth, it is likely that we will issue additional securities to provide such capital. Such additional issuances may involve the issuance of a significant number of common shares at prices less than the current market price for our common shares.

Sales of substantial amounts of our securities, or the availability of such securities for sale, as well as the issuance of substantial amounts of our common shares upon the exercise of outstanding warrants, DSU's or stock options, could adversely affect the prevailing market prices for our securities and dilute our investors' earnings per share. A decline in the market prices of our securities could impair our ability to raise additional capital through the sale of securities should we desire to do so.

Reliance on Third Parties for Supply and Manufacture of Products

Sernova relies on third parties for manufacturing its product candidates. Currently, Sernova does not have manufacturing facilities to independently manufacture its product candidates. Except for any contractual rights and remedies which Sernova may have with any future third party manufacturers, Sernova may not have any control over the availability of its product candidates, their quality or cost. If for any reason, Sernova is unable to obtain third-party manufacturers on commercially acceptable terms, it may not be able to distribute its product candidates.

Medical device manufacturers are subject to ongoing periodic unannounced inspection by Health Canada, the FDA, and corresponding state and foreign agencies, including European agencies and their designees, to ensure strict compliance with GMPs and other government regulations. Sernova will not have complete control over its third-party manufacturers' compliance with these regulations and standards. Failure by either Sernova's third-party manufacturers or by Sernova to comply with applicable regulations could result in sanctions being imposed, including fines, injunctions, civil penalties, failure of the government to grant review of submissions or market approval of drugs, delays, suspension or withdrawal of approvals, product seizures or recalls, operating restrictions, facility closures and criminal prosecutions, any of which could negatively impact the business.

Issuer Risk

Early stage development and scientific uncertainty. Our products are at an early stage of development. Significant additional investment in research and development, product validation, technology transfer to manufacturing, production scale-up, manufacturing, clinical testing, and regulatory submissions of such product candidates will be required prior to commercialization. There can be no assurance that any such products will actually be developed. The development and regulatory processes may require access to raw materials and inputs which may not be available to us in sufficient amounts or in a timely fashion to allow us to complete the development or receive regulatory approval of any product or process. A commitment of substantial time and resources is required to conduct research and clinical trials if we are to complete the development of any product. It is not known whether any of these product candidates will meet applicable health regulatory standards and obtain required regulatory approvals, or whether such products can be produced in commercial quantities at reasonable costs and be successfully marketed, or if our investment in any such products will be recovered through sales or royalties.

We depend heavily on the success of our Cell Pouch™ platform. All of our current product candidates involve the use of our Cell Pouch™ platform and are still in preclinical or clinical development. If we are unable to commercialize our product or experience significant delays in doing so, the business may be materially harmed.

We have committed significant resources to the development of our Cell Pouch™ platform. Our ability to generate product revenues, which is not expected to occur for at least the next several years, if ever, will depend heavily on the successful development and eventual commercialization of our Cell Pouch™ platform and related therapeutic cells.

We are dependent on successful safety and efficacy of our Cell Pouch™ and therapeutic cells for our lead programs including the use of human or xenogeneic islets and stem cell derived cells in combination with the Cell Pouch™ platform including cell immune protection to treat insulin-dependent diabetes and the use of Factor VIII releasing cells in combination with the Cell Pouch™ platform to treat severe hemophilia A. If we

are unable to achieve safety and efficacy in these disease indications in preclinical and/or clinical studies the business may be materially harmed.

HemAcure consortium: forward looking statements

The HemAcure Consortium is the name of the consortium developing a product for hemophilia A. This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 667421. The consortium members include the University Hospital Wurzburg (Coordinating Institute), Integrierte Management Systeme IMS e.K., Universita del Piemonte Orientale "Amedeo Avogadro," Loughborough University, GABO:mi Gesellschaft für Ablauforganisation: milliarium mbH & Co. and Sernova Corp. The main objective of the HemAcure project is to develop and refine the tools and technologies for a novel ex vivo prepared cell based therapy within Sernova's prevascularized Cell Pouch to treat this bleeding disorder that should ultimately lead to improved quality of life of the patients.

The European Commission's Horizon 2020 program had awarded a Euro 5.6M ($8.5M CAD) grant to the HemAcure Consortium to advance development of a GMP clinical grade Factor VIII releasing therapeutic cell product in combination with Sernova's Cell Pouch™ for the treatment of severe hemophilia A, a serious genetic bleeding disorder caused by missing or defective factor VIII in the blood stream. In February 2016, the Company also posted a link on Twitter.com to an article by Richard Mills entitled "Regenerative Medicine's Fountain of Youth" that appears on the website Aheadoftheherd.com. The Company has paid an annual fee to Richard Mills to advertise the Company on the Aheadoftheherd.com website and to link articles and news releases about the Company on the Aheadoftheherd.com website.

In the news releases and the article, it is stated that a potential product from the HemAcure Consortium would be disruptive to the current standard of care, which involves regular infusions (approximately 3 times per week) of factor VIII and that the current market is estimated at approximately $5 billion per year. In addition, the news releases and the article included the following forward looking statements (the "HemAcure FLI") with respect to the product being developed by the HemAcure Consortium that the Company is a part of:

- With successful safety and efficacy leading to regulatory approval to sell, a GMP clinical grade Factor VIII releasing therapeutic cell product in combination with Sernova's Cell Pouch™ could take over the current market and significantly improve patient quality of life, likely commanding a premium price; and
- Future revenues from this product stand to be significant, providing product diversification and more than a single billion dollar market.

Readers are cautioned that actual results may vary from the HemAcure FLI and should not to place undue reliance on those forward looking statements, which speak only as of the date initially disclosed and the date of this MD&A.

The following are the material factors or assumptions used to develop the HemAcure FLI:

- The global hemophilia market was valued at USD 9.3 billion in 2015 and is expected to grow at a CAGR of 5.6% over the forecast period. Hemophilia is a rare genetic bleeding disorder estimated to have affected about 400,000 people globally as of 2013. According to the World Federation of Hemophilia (WFH), the disease is more prevalent in males and about 1 in 5,000 neonates suffer from type A.*

  *Hemophilia Market Analysis by Type (Hemophilia A, Hemophilia B, Hemophilia C), By Treatment (On-demand, Prophylaxis), By Therapy (Replacement Therapy, Immune Tolerance Induction [ITI] Therapy, Gene Therapy), And Segment Forecasts to 2024. August, 2016 Grandview Research Report. Report ID: 978-1-68038-989-0.

The following are the material risk factors that could cause actual results to differ materially from the HemAcure FLI.

- The HemAcure consortium may not be able to develop a GMP source of Factor VIII cells
- The preclinical safety and efficacy of Factor VIII producing cells in the Cell Pouch™ may not be sufficient to warrant clinical evaluation
- Clinical studies may not prove the combination of the Cell Pouch™ and Factor VIII producing cells to be safe and efficacious and thus may not result in a commercial product.

Additional financing requirements and access to capital. We will require substantial additional funds for further research and development, planned clinical testing, regulatory approvals, establishment of manufacturing capabilities and, if necessary, the marketing and sale of our products. Based on historical and future projected operations, we expect our current cash and marketable securities of $3.6 million to enable us to fund our operating requirements for at least the next 12 months. We may attempt to raise additional funds through public or private equity or debt financing, collaborations with other biopharmaceutical companies and/or from other sources, including non-governmental grants and loans and various government incentive programs. There can be no assurance that additional funding, however sourced, will be available on terms acceptable to us and which would foster the successful commercialization of our products.

We heavily rely on the capabilities and experience of our key executives and scientists and the loss of any of them could affect our ability to develop our products. The loss of key members of our staff could harm us. We have employment agreements with our key staff members although such employment agreements do not guarantee their retention. We also depend on our scientific and clinical collaborators and advisors, all of whom have outside commitments that may limit their availability to us. In addition, we believe that our future success will depend in large part upon our ability to attract and retain highly skilled scientific, managerial, medical, clinical and regulatory personnel, particularly as we expand our activities and seek regulatory approvals for clinical trials. We enter into agreements with our scientific and clinical collaborators and advisors, key opinion leaders and academic partners in the ordinary course of our business. We also enter into agreements with physicians and institutions who will recruit patients into our clinical trials on our behalf in the ordinary course of our business. Notwithstanding these arrangements, we face significant competition for these types of personnel from other companies, research and academic institutions, government entities and other organizations. We cannot predict our success in hiring or retaining the personnel we require for continued growth. The loss of the services of any of our executive officers or other key personnel could potentially harm our business, operating results or financial condition.

Clinical trials are long, expensive and uncertain processes and Health Canada, FDA, European Union or other regulatory jurisdictions may ultimately not approve any of our products. We may never develop any commercial applications or products that generate revenues. None of our product candidates have received regulatory approval for commercial use and sale in North America or any other jurisdiction. We cannot market any product in any jurisdiction until it has completed thorough pre-clinical testing and clinical trials in addition to that jurisdiction's extensive regulatory approval process. Approval in one country does not assure approval in another country. In general, significant research and development and clinical trials are required to demonstrate the safety and effectiveness of our product candidates before we can submit any regulatory applications for marketing approval.

Clinical trials are long, expensive and uncertain processes. Clinical trials may not be commenced or completed on schedule and Health Canada or the FDA or any other regulatory body may not ultimately approve our product candidates for commercial sale. The clinical trials of any of our product candidates could be unsuccessful, which would prevent us from advancing, commercializing or partnering the product.

Even if the results of our pre-clinical studies or clinical trials are initially positive, it is possible that we will obtain different results in the later stages of product development or that results seen in clinical trials will not continue with longer term treatment. Positive results in early Phase I/II clinical trials may not be repeated in larger Phase I/II or Phase III clinical trials. We cannot be assured that our pre-clinical studies and clinical trials will generate positive results that allow us to move towards the commercial use and sale of our product candidates. Furthermore, negative results may cause our business, financial condition, or results of operations to be materially adversely affected.

For example, our Cell Pouch™ is in earlier clinical trials and there is a long development path ahead which will take years to complete and is prone to the risks of failure inherent in the development process.

Preparing, submitting and advancing applications for regulatory approval is complex, expensive and time intensive and entails significant uncertainty. A commitment of substantial resources to conduct time-consuming research, pre-clinical and clinical trials will be required if we are to complete development of our products.

Clinical trials of our products require that we identify and enroll patients with the illness under investigation. We may not be able to enroll a sufficient number of appropriate patients to complete our clinical trials in a timely manner particularly in smaller indications and indications where there is significant competition for patients. If we experience difficulty in enrolling a sufficient number of patients to conduct our clinical trials, we may need to delay or terminate on-going clinical trials and will not accomplish objectives material to our success that could impact the price of our common shares. For example, delays in planned patient enrolment and other factors in our clinical trials or future trials may result in longer trials, increased costs or both.

In addition, unacceptable adverse side effects may occur at any time in the course of preclinical studies or human clinical trials or, if any product candidates are successfully developed and approved for marketing, during commercial use of any approved products. The appearance of any such unacceptable adverse side effects could interrupt, limit, delay or abort the development of any of our product candidates, or if previously approved, necessitate their withdrawal from the market. Furthermore, disease resistance or other unforeseen factors may limit the effectiveness of our potential products.

Our failure to develop safe, commercially viable products would substantially impair our ability to generate revenues and sustain our operations and would materially harm our business and adversely affect our share price. We may never achieve profitability.

Patents and proprietary technology. Our success will depend in part on our ability to obtain, maintain, and enforce patent rights, maintain trade secret protection and operate without infringing the proprietary rights of third parties. There can be no assurance that pending patent applications will be allowed, that we will develop additional proprietary products that are patentable, that issued patents will provide us with any competitive advantage or will not be challenged by any third parties, or that patents of others will not have an adverse effect on our ability to conduct our business.

Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of our products, or design around the products patented by us. In addition, we may be required to obtain licenses under patents or other proprietary rights of third parties. No assurance can be given that any licenses required under such patents or proprietary rights will be available on terms acceptable to us, if at all. If we do not obtain such licenses, we could encounter delays in introducing one or more of our products to the market, while we attempt to design around such patents, or we could find that our development, manufacturing or sale

of products requiring such licenses could be foreclosed. In addition, we could incur substantial costs in defending ourselves in suits brought against us on such patents or in suits where we attempt to enforce our patents against other parties.

Our ability to maintain the confidentiality of our technology may be crucial to our ultimate potential for commercial success. While we have adopted procedures designed to protect the confidentiality of our technology, no assurance can be given that such arrangements will be effective, that third parties will not gain access to our trade secrets or disclose our technology, or that we can meaningfully protect the rights to our trade secrets.

The pharmaceutical industry is characterized by extensive patent litigation. Other parties may have, or obtain in the future, patents and allege that the use of our technologies infringes these patent claims or that we are employing their proprietary technology without authorization.

In addition, third parties may challenge or infringe upon our existing or future patents. Proceedings involving our patents or patent applications or those of others could result in adverse decisions affecting the patentability of our inventions relating to our key products and the enforceability, validity, or scope of protection offered by our patents relating to our key products and may result in substantial monetary damages or result in significant delays in bringing our key products to market and/or preclude us from participating in the manufacture, use or sale of our key products or methods of treatment requiring licenses. Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings, which could have a material adverse effect on us.

We may expend our limited resources to pursue particular research and development opportunities and fail to capitalize on others that may be more profitable or for which there is a greater likelihood of success. Because we have limited resources, we focus our research and development programs on therapeutic cell candidates for specific indications. As a result, we may forego or delay the pursuit of opportunities for other therapeutic cell candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and therapeutic cell candidates may not yield any commercially viable products.

We have based our research and development efforts on assessing various therapeutic cells within our Cell Pouch™ platform. As a result of pursuing the development of certain therapeutic cells within the Cell Pouch™ platform, the Company may fail to develop other therapeutic cells or address alternate scientific approaches that could offer greater commercial potential or for which there is a greater likelihood of success.

Dependence on collaborative partners, licensors and others. We currently utilize technology which we have licensed and technology which has been developed by our own researchers. In particular, we are dependent upon our license to use certain technology provided under a sublicense agreements with UHN, dated September 9, 2015, for the development of our product candidates. While the company's licenses are in good standing, they may be terminated by the licensor if there is a breach of the license agreement.

Our activities will require us to enter into various arrangements with corporate and academic collaborators, licensors, licensees and others for the research, development, clinical testing, manufacturing, marketing and commercialization of our products. We intend to attract corporate partners and enter into additional research collaborations. There can be no assurance, however, that we will be able to establish such additional collaborations on favourable terms, if at all, or that our current or future collaborations will be successful. Failure to attract commercial partners for our products may cause us to incur substantial clinical testing,

manufacturing and commercialization costs prior to realizing any revenue from product sales or result in delays or program discontinuance if funds are not available in sufficient quantities.

Should any collaborative partner fail to develop, manufacture, or commercialize successfully any product to which it has rights, or any partner's product to which we will have rights, our business may be adversely affected. Failure of a collaborative partner to continue to participate in any particular program could delay or halt the development or commercialization of products generated from such program. In addition, there can be no assurance that the collaborative partners will not pursue other technologies or develop alternative products either alone or in collaboration with others, including our competitors, as a means for developing treatments for the diseases targeted by our programs.

Furthermore, we may require licenses for certain technologies and there can be no assurance that these licenses will be granted or, if granted, will not be terminated, or that they will be renewed on conditions acceptable to us. We intend to negotiate additional licenses in respect of technologies developed by other companies and academic institutions. Terms of license agreements to be negotiated may include, inter alia, a requirement to make milestone payments, which may be substantial. We will also be obligated to make royalty payments on the sales, if any, of products resulting from licensed technology and, in some instances, may be responsible for the costs of filing and prosecuting patent applications.

We rely and will continue to rely on third parties to conduct some portions of our preclinical and clinical development activities. Preclinical activities include proof of concept and safety studies. Clinical development activities include trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management. If there is any dispute or disruption in our relationship with third parties, or if they are unable to provide quality services in a timely manner and at a reasonable cost, our active development programs will face delays. Further, if any of these third parties fails to perform as we expect or if their work fails to meet regulatory requirements, our testing could be delayed, cancelled or rendered ineffective.

We rely on a third party contract manufacturer to manufacture our products. Health Canada and the FDA ensure the quality of products by carefully monitoring manufacturers' compliance with Good Manufacturing Practices regulations ("GMP"). Any manufacturing failures or delays or compliance issues could cause delays in the completion of our preclinical and clinical activities. There can be no assurances that our contract manufacturer will be able to meet our timetable and requirements. We have currently not contracted with alternate suppliers, in the event our contract manufacturer is unable to scale up production, or if they otherwise experience any other significant problems. If we are unable to arrange for alternative third-party manufacturing sources on commercially reasonable terms or in a timely manner, we may be delayed in the manufacture of our product. Further, contract manufacturers must operate in compliance with GMP and failure to do so could result in, among other things, the disruption of our product supplies. Our dependence upon third parties for the manufacture of our products may adversely affect our profit margins and our ability to develop and deliver products on a timely and competitive basis.

Employee misconduct or other improper activities. We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include failures to comply with Health Canada or FDA regulations, provide accurate information to those agencies, comply with manufacturing standards we have established, comply with federal and state health-care fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. If any such actions are instituted against us, and we

are not successful in defending ourselves or asserting our rights, those actions could have a substantial impact on our business and results of operations, including the imposition of substantial fines or other sanctions.

Lack of product revenues and history of losses. To date, we have not recorded any revenues from the sale of cell therapy products. We expect to incur additional losses during the periods of research and development, clinical testing, and application for regulatory approval of our product candidates. For the years ended October 31, 2017 and 2016, we incurred losses of $2.6 million and $2.5 million, respectively and had an accumulated deficit to October 31, 2017 of $34.8 million. We expect to incur further losses unless and until such time as payments from corporate collaborations, product sales and/or royalty payments generate sufficient revenues to fund our continuing operations.

Conflict of interest. Certain of our directors and senior officers may, from time to time, be employed by or affiliated with organizations which have entered into agreements with us. As disputes may arise between these organizations and us, or certain of these organizations may undertake or have undertaken research with our competitors, there exists the possibility for such persons to be in a position of conflict. Any decision or recommendation made by these persons involving us will be made in accordance with his or her duties and obligations to deal fairly and in good faith with us and such other organizations. In addition, as applicable, such directors and officers will refrain from voting on any matter in which they have a conflict of interest.

We are likely a "passive foreign investment company," which may have adverse U.S. federal income tax consequences for U.S. shareholders. U.S. investors should be aware that we believe we were classified as a passive foreign investment company, or PFIC, during the tax years ended October 31, 2017 and 2016, and based on current business plans and financial expectations, we expect that we will be a PFIC for the current tax year and may be a PFIC in future tax years. If we are a PFIC for any year during a U.S. shareholder's holding period of our common shares, then such U.S. shareholder generally will be required to treat any gain realized upon a disposition of our common shares, or any so- called "excess distribution" received on our common shares, as ordinary income, and to pay an interest charge on a portion of such gain or distributions, unless the shareholder makes a timely and effective "qualified electing fund" election, or QEF Election, or a "mark-to-market" election with respect to our shares. A U.S. shareholder who makes a QEF Election generally must report on a current basis its share of our net capital gain and ordinary earnings for any year in which we are a PFIC, whether or not we distribute any amounts to our shareholders. A U.S. shareholder who makes the mark-to-market election generally must include as ordinary income each year the excess of the fair market value of the common shares over the shareholder's adjusted tax basis therein. Each U.S. shareholder should consult its own tax advisors regarding the PFIC rules and the U.S. federal income tax consequences of the acquisition, ownership and disposition of our common shares.

It may be difficult for non-Canadian investors to obtain and enforce judgments against us because of our Canadian incorporation and presence. We are a corporation existing under the laws of the Province of Ontario, Canada. Several of our directors and officers, and several of the experts are residents of Canada, and all or a substantial portion of their assets, and all or a substantial portion of our assets, are located outside the United States. Consequently, it may be difficult for holders of our securities who reside in the United States to effect service within the United States upon those directors and officers, and the experts who are not residents of the United States. It may also be difficult for holders of our securities who reside in the United States to realize in the United States upon judgments of courts of the United States predicated upon our civil liability and the civil liability of our directors, officers and experts under the United States federal securities laws. Investors should not assume that Canadian courts (i) would enforce judgments of United States courts obtained in actions against us or such directors, officers or experts predicated upon the civil liability provisions of the United States federal securities laws or the securities or "blue sky" laws of any state or jurisdiction of the United States or (ii) would enforce, in original actions, liabilities against us or such

directors, officers or experts predicated upon the United States federal securities laws or any securities or "blue sky" laws of any state or jurisdiction of the United States. In addition, the protections afforded by Canadian securities laws may not be available to investors in the United States.

As a foreign private issuer, we are not subject to certain United States securities law disclosure requirements that apply to a domestic United States issuer, which may limit the information which would be publicly available to our shareholders. As a foreign private issuer, we are not required to comply with all the periodic disclosure requirements of the Exchange Act, and therefore, there may be less publicly available information about us than if we were a United States domestic issuer. For example, we are not subject to the proxy rules in the United States and disclosure with respect to our annual meetings will be governed by Canadian requirements.

Industry Risk

Rapid technological change. The biotechnology and pharmaceutical industries are characterized by rapid and substantial technological change. There can be no assurance that developments by others will not render our proposed products or technologies non-competitive, or that we will keep pace with technological developments. Competitors have developed or are developing technologies that could be the basis for competitive products. Some of these products have an entirely different approach or means of accomplishing the desired therapeutic effect as compared with products to be developed by us, and could be more effective and less costly than the products to be developed by us. In addition, alternative forms of medical treatment may be competitive with our products.

Competition. Technological competition from pharmaceutical companies, biopharmaceutical companies and universities is intense and is expected to increase. Potential competitors for us have or may develop product development capabilities or financial, scientific, marketing and human resources exceeding ours. Competitors may develop products before we can develop our products, obtain regulatory approval for such products more rapidly than us, or develop products which are more effective than those which we intend to develop. Research and development by others may render our proposed technology or products obsolete or non-competitive or produce treatments or cures superior to any therapy developed or to be developed by us, or otherwise preferred to any therapy developed by us.

Government regulations. Biotechnology and pharmaceutical companies operate in a high-risk regulatory environment. The manufacture and sale of therapeutic products is governed by numerous statutes and regulations in the United States, Canada and other countries where we intend to market our products. The subject matter of such legislation includes approval of manufacturing facilities, controlled research and testing procedures, review and approval of manufacturing, preclinical and clinical data prior to marketing approval, as well as regulation of marketing activities, notably advertising and labeling.

The process of completing clinical testing and obtaining required approvals is likely to take several years and require the expenditure of substantial resources. Furthermore, there can be no assurance that the regulators will not require modification to any submissions which may result in delays or failure to obtain regulatory approvals. Any delay or failure to obtain regulatory approvals could adversely affect our ability to utilize our technology, thereby adversely affecting our operations. Further, there can be no assurance that our product candidates prove to be safe and effective in clinical trials, or receive the requisite regulatory approval. There is no assurance that we will be able to timely and profitably produce its products while complying with all the applicable regulatory requirements. Foreign markets, other than the United States and Canada, impose similar restrictions.

Hazardous materials and environmental matters. Certain of our research and development processes will involve the controlled use of hazardous materials. We are subject to federal, provincial and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although our management believes that its procedures for handling and disposing of such materials comply with the standards prescribed, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for damages and such liability could exceed our resources. We are not specifically insured with respect to this liability. Although our management believes that it currently complies in all material respects with applicable environmental laws and regulations, we may be required to incur significant costs to comply with environmental laws and regulations in the future. Furthermore, there can be no assurance that our operations, business or assets will not be materially adversely affected by current or future environmental laws or regulations.

Status of healthcare reimbursement. Our ability to successfully market certain therapeutic products may depend in part on the extent to which reimbursement for the cost of such products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Significant uncertainty exists as to whether newly approved healthcare products will qualify for reimbursement. Furthermore, challenges to the price of medical products and services are becoming more frequent. There can be no assurance that adequate third-party coverage will be available to establish price levels, which would allow us to realize an acceptable return on our investment in product development.

Potential product liability. Pharmaceutical products involve an inherent risk of product liability claims and associated adverse publicity. Product liability insurance is costly, and availability is limited and may not be available on terms which would be acceptable to us, if at all. An inability to maintain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims could prevent or inhibit the commercialization of our products. A product liability claim brought against us, or withdrawal of a product from the market, could have a material adverse effect upon us and our financial condition.

Reliance on Information Technology. Sernova is dependent on information technology systems, including internet-based systems, for internal communication as well as communication with suppliers. Any significant disruption of these systems, whether due to computer viruses or other outside incursions, could materially and adversely affect Sernova's operations.

DIRECTORS AND OFFICERS

Frank Holler, Chairman of the Board of Directors
Jeffrey Bacha, Director
James Parsons, Director
Bruce Weber, Director
Dr. Philip Toleikis, President, Chief Executive Officer and Director
Scott Langille, Chief Financial Officer

ADDITIONAL INFORMATION

Additional information relating to the Company can be found on SEDAR at www.sedar.com.