

**SERNOVA CORP.**  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
**Three and Six Months Ended April 30, 2011**

The following discussion and analysis explains the variations in the consolidated operating results and financial position and cash flows of the Company for the Three and Six Months Ended April 30, 2011 and 2010. This analysis should be read in conjunction with the interim unaudited Consolidated Financial Statements of the Company and related notes enclosed herein as at April 30, 2011. Such interim unaudited Consolidated Financial Statements have been prepared in accordance with Canadian generally accepted accounting principles. All dollar figures are in Canadian dollars unless otherwise indicated. In this report where we say "we", "us", "our", or "the Company", we mean Sernova Corp., unless otherwise indicated.

The information in this report is dated as of June 29, 2011.

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 such words as "will", "intend", "believe", "estimate", "consider", "expect", "anticipate", and "objective" and similar expressions or 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.

Readers are cautioned not to place undue reliance on these forward looking statements, which speak only as of the date of the MD&A or as of the date otherwise specifically indicated herein. Due to risks and uncertainties, including the risks and uncertainties 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 discussion and analysis has been reviewed and approved by the Audit Committee and the Board of Directors. The Audit Committee of the Company includes two Directors who are financially knowledgeable.

**PERFORMANCE SUMMARY AND UPDATE**

In May, 2006 the Company entered into a Joint Venture. The purpose of the Joint Venture is to develop a commercially viable treatment for insulin-dependent human diabetes using insulin producing islets. The licensed technology of the Joint Venture involves the use of sertoli cells to provide immune-protection within a local environment to reduce or eliminate the need for anti-rejection drugs and is branded as "**Sertolin™**". With respect to this technology the Company initially focused on the use of porcine sertoli cells and islets for transplantation; however, more recently the Company is focused on the use of human rather than porcine cells. The Company is also developing an implantable medical device for the effective transplantation and long term survival of therapeutic cells for multiple diseases.

As part of the joint venture agreement, STI exclusively licensed to the Company all patents, and patent applications for the therapeutic use of Sertoli cell technology, the key component of Sertolin. In exchange, the Company issued to STI 6,527,500 common shares and paid a licensing fee of \$1,142,312, and agreed to pay certain other future royalties on income related to the patents. The payment shares

were subject to a 3 year timed escrow agreement. As of the date of this MD&A, all payment shares have been released from escrow.

On July 26, 2007, the Company exercised its right under the Joint Venture to acquire the final one-third of the shares of Sertonex, and issued 2,315,000 common shares to Dr. David White and Mr. Justin Leushner. These common shares have been subject to timed escrow release and earn out escrow provisions. All timed escrow release shares have been released. As of the date of this MD&A, 3,472,500 common shares (the “**Performance Escrow Shares**”) remain subject to a performance-based release as follows:

- (i) 1,736,250 common shares on the date that Sernova or an affiliate receives approval from the United States FDA (or its foreign equivalent in Canada, Europe or Japan) of an investigational new drug application or other appropriate regulatory application, as applicable, (or its foreign equivalent in Canada, Europe or Japan) for the initiation of human clinical trials for a Licensed Product;
- (ii) the balance of 1,736,250 common shares on the date that Sernova or an affiliate enrolls the first patient in a Phase III human clinical efficacy trial (or its foreign equivalent in Canada, Europe or Japan) for a Licensed Product; provided the Escrow Agent receives a declaration of the Company, in each instance that the conditions for the release have been met.

Any unreleased Performance Escrow Shares will be cancelled and returned to treasury upon the earlier of (i) August 2016, (ii) the Company ceasing to hold an interest in the intellectual property, or (iii) the mutual agreement of the Company and the shareholder.

The Company’s efforts and expenditures have been focused on obtaining preclinical data through research to support regulatory approval of clinical (human) trials of the Company’s cell and implantable device technologies. The Company is planning to file an Investigational New Drug (“**IND**”) or an Investigational Device Exemption (“**IDE**”) application with the United States Food and Drug Administration (“**FDA**”), or other relevant regulatory agency once management believes it has enough preclinical safety and efficacy data. The Company’s management, in conjunction with its Scientific Advisory Committee and regulatory consultants, periodically review and revises its regulatory approval strategy as needed.

As such, in the meantime, the Company focused on development of its proprietary Cell Pouch™ device for human cell transplantation. If the Company were to undertake clinical study of the Cell Pouch System™ in steps involving assessment of the device using human autografts from patients with chronic pancreatitis who are having a pancreatectomy without the need for antirejection agents and/or human islets from donor allografts using the standard care antirejection therapy, it is expected that the regulatory requirements may be less onerous from that required for clinical testing of the Sertolin™ technology with porcine tissues. The Company, with input from transplantation scientists and device engineers, has thus focused on the design of this cellular implantation device (Cell Pouch System™) that would be suitable for humans. In addition, the Company manufactured a number of prototypes of the Cell Pouch System™ for preclinical assessment in small and large animal models of diabetes.

The Company is thus evaluating various options involving a tiered entry of its technologies into the clinic and eventual marketplace with additional focus on the use of human islets using the Cell Pouch System™ as a platform technology. To provide more detail, the Cell Pouch™ is a medical device placed under the skin with chambers for therapeutic cell implantation. Plugs fill the chambers while tissue and microvessels fill in around the plug creating a natural tissue environment for cell transplantation. While the Cell Pouch™ may be used for various therapeutic cells, the Company is focused on the use of insulin-producing islets for treatment of patients who have diabetes or who will have diabetes as a result of a medical procedure. Patients who may have diabetes as a result of a medical procedure include those with chronic pancreatitis. Patients with chronic pancreatitis may have

their pancreas removed to alleviate severe untreated chronic pain. When the pancreas is removed, the patients will become insulin dependent diabetic because the insulin producing islets which are found in the pancreas are also lost. The Company proposes that the islets from the removed pancreas could be isolated and placed into the Cell Pouch System™ which has been previously placed under the skin of the patient instead of in the portal vein of the liver as is currently being done by a number of clinical sites.

To further expand the clinical indications for the Company's technologies the Cell Pouch System™ may be used in patients who are planning on having an allograft transplant as an alternative to injecting islets into the portal vein of the liver which has been hypothesized to result in the death of a significant number of islets due to an instant blood-mediated inflammatory reaction (IBMIR) and thrombosis among other issues. Such patients would also normally be treated with a cocktail of antirejection drugs to prevent islet rejection. The patients with the Cell Pouch System™ who have had an allograft transplant may be given either antirejection drugs or eventually the islets could be combined with Sernova's sertoli technology for local antirejection control to reduce or eliminate the need for systemic antirejection drugs.

In addition to the internal research and development activities, the Company plans to seek collaborations with key international transplant centres that currently offer islet transplantation (known as the "Edmonton Protocol") to patients suffering from insulin-dependent diabetes.

The Company has initiated discussions with three transplant centres in North America with a view to establishing scientific and potential future clinical collaborations to demonstrate proof of concept and commercialize its proprietary technology. These collaborations may include studies to assess the various aspects of the Company's technology as well as safety and efficacy studies, which may contribute to the data sufficient for filing an IDE or IND as discussed above. It is the Company's position that by collaborating with leading transplant centres, the Company can conduct various studies in parallel, while ensuring the highest quality of work to meet the standards of the FDA, Health Canada and the international scientific community. The Company may also choose to conduct these studies within its research and development department. The Company may also seek corporate collaborations for such purposes.

While the initial primary focus of the Company's development efforts will be assessment of the Cell Pouch System™ for insulin-dependent diabetes, the Company is planning to develop partnerships with academic and corporate collaborators to develop the Cell Pouch for other chronic metabolic, hematologic and neurological diseases. Furthermore, the Company will be seeking to investigate the use of the device for implantation of multiple cell types including natural cells, stem cells and genetically engineered cells based on the first indication, transplantation of insulin producing islets to prove the concept of cellular transplantation using the Cell Pouch™.

Sernova's product platforms include the Cell Pouch System™ and Sertolin™, which are in the preclinical stages of development. The Company is currently in the process of having the Cell Pouch™ contract manufactured and is completing preclinical studies in preparation for a regulatory submission. It is anticipated that clinical evaluation of the Cell Pouch™ will begin the first half of 2012, pending approval from regulatory authorities. This study is expected to test the Cell Pouch™ with donor islets and an antirejection drug regimen in patients with diabetes.

The Company tested the Cell Pouch System™ using a prototype in a small animal model of diabetes where rats were administered isograft islets into the Cell Pouch™. Based on the results of this study, the human-scaled device was designed and manufactured. The human-scaled device was tested in an autograft setting in a large animal diabetic model, in which the pancreas was removed, the animals own islets were isolated and placed into the Cell Pouch™, and the Cell Pouch™ then implanted under the skin. A further study has been initiated where various doses of donor islets are placed into the Cell Pouch™ in a large animal diabetes model in which animals are administered an antirejection drug regimen. In addition, a primate study has been conducted assessing the safety of the Cell Pouch™, as well as tissue and angiogenesis incorporation into the Cell Pouch™ placed at various locations in the body.

The Company has been conducting its own research and development at the University of Western Ontario to take advantage of the state of the art facilities and surgical expertise of surgeons hired as contractors. The Company has also hired contract laboratories to conduct some of its preclinical studies, such as the University of Chicago, Illinois for the non-human primate study. The Company plans to continue to use external laboratories to conduct certain studies, such as biocompatibility testing. In addition, the Company plans to work with academic centres under collaborative arrangements to conduct pre-clinical studies of the Cell Pouch™.

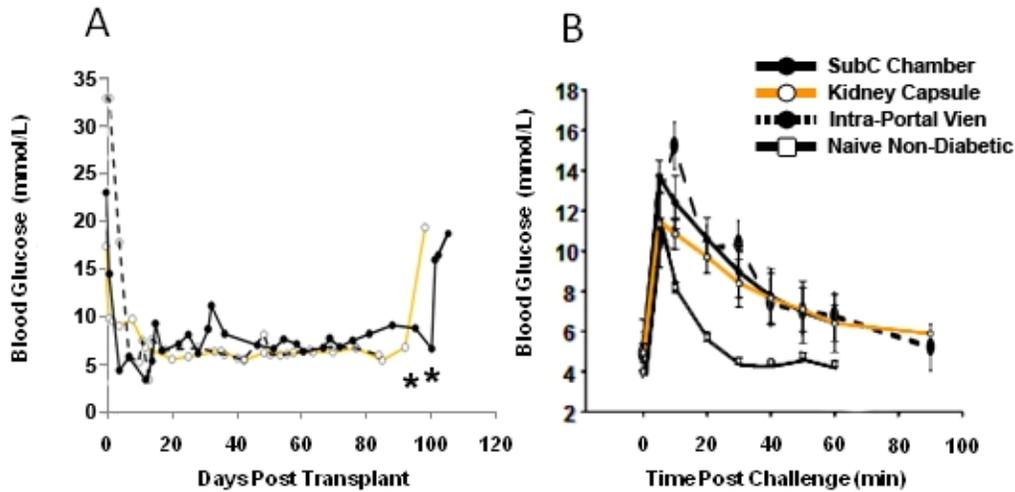
In order to develop the Cell Pouch System™ to the point of commercialization, the Company plans to seek regulatory approval to conduct clinical studies in patients for the various clinical indications discussed above. It is expected that, provided regulatory approval is obtained, a clinical study of 15-20 patients will be used to assess initial safety and efficacy of the Cell Pouch™. This will then likely be followed by additional studies to assess efficacy and safety in a larger population. It is expected that these studies will be used to eventually gain commercial approval of the Cell Pouch™ for the various clinical indications discussed above.

#### Small Animal Study

The following is a summary of the Company's study of the Cell Pouch System™ using a prototype in a small animal model of diabetes where rats were administered isograft islets into the Cell Pouch™.

With respect to the assessment of islet transplantation in a small prototype device, following vascularization syngenic rat islets were transplanted into the device in animals that had been made diabetic. For comparative purposes, the syngenic rat islets were grafted under the kidney capsule, or into the liver delivered through the portal vein. Figure 1A shows normoglycaemic non-fasting blood glucose levels in diabetic rats following isograft islets into a pre-implanted subcutaneous chamber (closed circles, solid line), under the kidney capsule (open circles, orange line), and into the liver via the intra-portal vein (closed circles, dashed line) confirming that non-fasting blood glucose levels of all animals tested returned to normoglycaemic levels. Diabetes returned when the isograft device was removed (denoted by \*). Thus, these results demonstrate that the prototype device with islets can control glucose levels in the diabetic animals.

In a separate experiment (see figure 1B), glucose responses following an intravenous glucose tolerance test were measured. The responses to acute administration of glucose of animals transplanted with isograft of syngenic rat islets into the Company's device were compared to isografts into the intra-portal vein of the liver, under the kidney capsule and against a control group of naive non-diabetic rats (open square, solid line). As with all islet transplants, the response times seen in the grafts were partially delayed compared to the control non-diabetic; however, there was no significant difference in the responses between the three transplant locations confirming the potential utility of the early prototype Cell Pouch™.



**Figure 1**

### Large Animal Study

Based on the results of the Small Animal Study, a new “large animal” device, of a size suitable for humans, was developed. The Company has manufactured variations of the new “large animal” prototype devices (e.g. different pore size) for testing.

The Large Animal Study examined the safety and efficacy of Sernova’s pre-vascularized proprietary Cell Pouch™ as an alternative, subcutaneous site for islet transplantation, using a porcine islet autograft model. This study tested the functionality of several variants of the Cell Pouch™ designed for eventual use in humans, to determine optimal configuration for further development. Specific technical objectives of the study were:

1. To assess the timeframe necessary to achieve incorporation of the device into the body through evaluation of collagen formation and neo-vascularization thought to be important to the survival of implanted cells and overall function of the device.
2. To conduct pre-transplantation *in vitro* functional assessment of islets to be transplanted into the Cell Pouch™ to graft function following transplantation.
3. To relate the *in vitro* functional assessment to long-term function of the islets in the Cell Pouch™.
4. To confirm the functionality of transplanted cells in the device through measurement of glucose tolerance tests and the degree of maintenance of normoglycemia ( $\leq 10$  millimoles/litre) in diabetic animals up to three months following transplantation until the device removal.
5. To evaluate islet cell histology and insulin staining of the islets in the Cell Pouch™ at the termination of the study. The insulin staining demonstrates that islets are producing insulin and is a measure of functionality (viability) of the cells. Histology assessment is conducted to confirm the density of intact islet cells and provides an index of the general health of the insulin-producing cells.
6. Following device removal, to confirm the loss of normoglycemia through glucose tolerance tests.

The Cell Pouch™, incorporated with tissue and angiogenesis, formed an endocrine, organ-like structure after islets were transplanted, at all time points tested. All twenty-eight (28) Cell Pouches™ implanted were well tolerated in the subcutaneous tissues with the absence of inflammation of the skin, wound

exudates, or infection. Following implantation, implant incisions healed rapidly with no signs of infection, seroma, or erythema. The results of the Large Animal Study are summarized as follows:

1. A number of diabetic animals implanted with the Cell Pouch System™ were insulin-independent (i.e. did not require insulin injections) for 72 days, which was the duration of the study, because their blood glucose levels were being controlled by the islets in the Cell Pouch™. Functional islet grafts within the Cell Pouch™ were defined by the ability of the islet graft to control daily blood glucose (insulin-independence), as well as responded to a glucose challenge. The glucose challenge measurements showed statistically significant stimulated C-peptide and blood glucose AUC (area under the blood glucose curve), as well as an improved glucose disappearance rate compared to pouch removal measurements. Approximately 57% (4/7) of animals showed insulin-independence during the 72 day period. The degree of control was related to the quality of the islets placed into the Cell Pouch™, as measured by proprietary means. Thus, the Cell Pouch System™ showed reversal of diabetes in these animals.

2. Devices that were removed at the end of the study demonstrated robust microvessel development into the device and surrounding the islets. The islet clusters were also embedded in a matrix. Management believes these two conditions may be important for long-term survival of islets.

3. Following removal of the Cell Pouch System™ it was demonstrated that the islets were still producing insulin, as determined through insulin staining and microvessels, which indicated that the islets were healthy at the 72 day time point within the device, which management believes is another demonstration of the efficacy of the Cell Pouch™.

4. Following removal of the Cell Pouches™ with islets, as expected, the animals became diabetic again, and a significant deterioration in glucose disappearance rates, blood glucose and C-peptide levels occurred ( $p > 0.05$ ), which demonstrated that it was the islets in the Cell Pouches™ that controlled the blood glucose levels in the animals making them insulin-independent.

5. The long-term glucose control occurred with the use of approximately 10% of the typical beta cell mass used in the Edmonton Protocol, which suggests that the Cell Pouch System™ may be islet-sparing. Furthermore, management believes the promotion of angiogenesis, minimal invasiveness, ease of explant and potential islet sparing properties of this Cell Pouch™ in a stringent large, animal model of diabetes is encouraging for its potential use in clinical islet transplantation. The Large Animal Study will be used in part to support the Company's future assessment of the Cell Pouch™ in human clinical trials to examine its safety and efficacy.

#### Non-Human Primate Study

A non-human primate study was conducted at the University of Illinois, Chicago to assess the tissue incorporation and angiogenesis in the Cell Pouch™ at 2, 4 and 8 weeks in Cell Pouches™ placed subcutaneously in various locations. At all explants time points there was significant evidence of vascularization demonstrated by vessels entering the Cell Pouch™. There were no infections, hemorrhagic or skin-related adverse events with placement of and retention of the Cell Pouches. Overall, with well-established blood supplies, well-defined capsules and well-formed intra-pouch cavities, it was concluded that the Cell Pouches™ would be suitable for islet transplantation.

#### Current Research Program

The Company's current ongoing research and development program involves the study in an allograft porcine model of diabetes to experimentally test the Cell Pouch™ for cell transplantation using donors and an antirejection drug combination, to test the efficacy of different doses of islets in the Cell Pouch™. Results of this study are pending.

Successful testing of the Cell Pouch™ product could result in one or more of the following: reduced frequency of exogenous insulin use by patients; elimination of the need for exogenous insulin in

patients; increased duration of islet survival; reduced overall failure rate of grafts; reduced amount of immunosuppressive agents required to reduce the incidence of hypoglycemic episodes; improved ability to image and track islets; and/or reduce number of donors required per islet transplant patient. Thus, management believes that there are multiple opportunities whereby the Cell Pouch™ product could improve current therapy.

#### Financing and Scientific Activities

On April 28, 2010 the Company announced an offering on a non-brokered private placement basis up to 8.0 million units (“The Units”) at a price of \$0.15 per Unit to raise proceeds of up to \$1.2 million. The Company completed the first closing of the offering on April 28, 2010, raising gross proceeds of \$405,250 through the issuance of 2,701,666 Units. Proceeds of the offering will be used to fund ongoing development, including pre-clinical studies required to support a future Phase I/II clinical study of insulin-dependent diabetes, and for general working capital. Each of the Units consists of one common share of the Company and one-half share purchase warrant. Each whole warrant entitles the holder thereof to acquire one common share at a price of \$0.20 for a period of 24 months from closing. In connection with the first closing, the Company issued 46,923 finders’ warrants, valued at \$4,064 and paid \$7,038 to the finders. Each Finders warrant entitles the holder thereof to purchase one common share at \$0.15 per share for a period of 24 months from closing.

On May 26, 2010, the Company announced the appointment of Mr. Stephen Nagler, LLB to the Company’s Business Advisory Board. Mr. Nagler is a partner with Eaton Van Winkle LLC of New York, and is a venture partner in Frontier Ventures, an emerging venture capital fund focused on Canadian life sciences companies. Mr. Nagler is also Chair of Tristate Ventures LLC, a leading New York City based angel investor group focused on investments in microcap companies, mostly in healthcare sector.

On June 4, 2010, the Company completed the second closing of a non-brokered private placement offering through the issuance of 1,004,800 units at \$0.15 per unit for gross proceeds of \$150,720. Each unit consists of one common share of the Company and one-half share purchase warrant. Each whole warrant entitles the holder thereof to acquire one common share at a price of \$0.20 for a period of 24 months from closing. In connection with the second closing, the Company issued 33,880 finders’ warrants, valued at \$2,934 and paid \$5,082 to the finders. Each Finder’s warrant entitles the holder thereof to purchase one common share at \$0.15 per share for a period of 24 months from closing. Share issue costs under the private placement totaled \$8,016.

In August 2010 the long-term results of the porcine diabetes study were presented at the XXII International Congress of the Transplant Society in Vancouver, Canada. In addition to the above findings, long-term results were as follows:

1. A number of diabetic animals implanted with the Cell Pouch System™ were insulin independent (did not require insulin injections) for 72 days, the duration of the study, because their blood glucose levels were being controlled by the islets in the Cell Pouch™. The degree of control was related to the quality of the islets placed into the Cell Pouch™ as measured by proprietary means. Thus, the Cell Pouch System™ showed reversal of diabetes in these animals.
2. Devices that were removed at the end of the study were demonstrated to have robust microvessel development into the device and surrounding the islets. Of significant importance, the islet clusters were also embedded in a matrix. These two conditions are very important because they show that the Cell Pouch System™ is creating a natural environment for the islets to survive, long-term.

3. Following removal of the Cell Pouch System™ it was demonstrated that the islets in the device were still producing insulin, indicating that the islets were healthy at the 72 days within the device.
4. Following removal of the Cell Pouches™ with islets, as expected, the animals became diabetic again. This validated that it was the islets in the Cell Pouches™ that controlled the blood glucose levels in the animals making them insulin-dependent.

By the end of October, 2010, the Issuer completed the autograft study of the human-scaled device in preparation for future manufacture, formal preclinical testing and eventual clinical evaluation. This porcine study has helped to define and expand the range of time the device could be placed in the body prior to insertion of cells. It also determined the degree of efficacy and safety of the device in the porcine diabetes model following islet transplant.

Following identification of the ideal parameters of the device, device specifications are set and the product is manufactured under regulatory guidelines (ISO 13485) in preparation for formal preclinical testing including biocompatibility testing, and other tests required prior to entry into clinical trials.

In August 2010, the Company reached an agreement with the National Research Council of Canada Industrial Research Assistance Program under which the Company will receive a non-repayable financial contribution of up to \$275,000, along with technical and business oriented advisory services, to support a pre-clinical study to test increasing doses of adult islets (allograft) transplanted into Sernova's cell Pouch System™ in different groups of-pigs. The Company is being reimbursed for 97 % of designated salary costs to a maximum of \$182,000 and 75% of contractor fees to a maximum of \$93,000. This study commenced in August 2010 and is expected to be completed in approximately 12 months.

On October 18, 2010, the Company completed the first closing of a non-brokered private placement offering through the issuance of 3,800,000 units at \$0.15 per unit for gross proceeds of \$570,000. Each unit consists of one common share of the Company and one-half share purchase warrant. Each whole Warrant entitles the holder thereof to acquire one common share at a price of \$0.20 for a period of 24 months from closing. In connection with the closing, the Company issued 37,333 finders' warrants, valued at \$2,860 and paid \$2,800 to the finders. Each Finder's warrant entitles the holder thereof to purchase one common share at \$0.20 per share for a period of 24 months from closing.

On November 4, 2010, the Company completed the second closing of 2,866,667 units at \$0.15 per unit for gross proceeds of \$430,000. Each unit consists of one common share of the Company and one-half share purchase warrant. Each whole Warrant entitles the holder thereof to acquire one common share at a price of \$0.20 for a period of 24 months from closing. In connection with the second closing, the Company issued 21,000 finders' warrants and paid \$11,150 to the finders. Each Finder's warrant entitles the holder thereof to purchase one common share at \$0.20 per share for a period of 24 months from closing.

On December 7, 2010 completed a non-brokered private placement of 1,400,000 units at a price of \$0.16 per unit for gross proceeds of \$224,000. Each Unit issued consisted of one common share of the Company and one-half of a share purchase warrant. Each whole warrant entitles the holder thereof to acquire one common share at a price of \$0.20 for a period of 24 months. There were no share issue costs.

Over the ensuing 12 months, the Company plans to:

- complete the large animal allograft study assessing the safety and efficacy of different doses of islets in the Cell Pouch™ in animals given an antirejection drug regimen;
- manufacture the Cell Pouch™ with an ISO 13485 compliant contract manufacturer, suitable for human clinical evaluation;
- conduct formal preclinical studies including biocompatibility which are expected to be used to support a regulatory filing for human clinical evaluation of the Cell Pouch™;
- prepare documentation to support regulatory filings required to begin a human clinical trial; and
- provided that regulatory approval is obtained, start a 15-20 patient clinical study with Dr. Shapiro at the University of Alberta, to assess the safety and efficacy of the Cell Pouch™ in diabetic patients who will receive donor islets to treat diabetes.

While the initial primary focus of the Company's development efforts will be the assessment of the Cell Pouch System™ for insulin-dependent diabetes, the Company is planning to develop partnerships with academic and corporate collaborators to develop the Cell Pouch™ for other chronic metabolic, hematologic and neurological diseases. Furthermore, the Company will be seeking to investigate the use of the device for implantation of multiple cell types including natural cells, stem cells and genetically engineered cells.

The Company is currently evaluating various options involving the Cell Pouch System™, using a tiered product development approach, including: (1) testing autograft islets (i.e., a person's own islets) placed in the Cell Pouch™ in patients with chronic pancreatitis who are having their pancreas removed to alleviate severe pain; (2) testing donor islets with an anti-rejection drug regimen; (3) testing donor islets in patients using Sertolin™ or other cell protector technology that may allow dose reduction or even elimination of anti-rejection drugs in patients; and (4) assessing insulin-producing stem cells and anti-rejection drugs or immune protective cells in diabetic patients. Management believes this tiered approach may allow the Company to explore multiple sources of revenue with its products. Under all of these settings, the Company is planning to focus on the use of human islets or human-derived cells for clinical testing and eventual entry into the marketplace.

On February 28, 2011 the Company announced positive performance of its proprietary Cell Pouch System™ in a non-human primate study. As a precursor to planned human trials with the device, the study was designed to further investigate the safety profile of the Company's Cell Pouch System™ and its ability to develop a natural environment for therapeutic cells in the primate. In previous large animal studies, the Cell Pouch System™ was demonstrated to become rapidly vascularized and form a hospitable environment for therapeutic cells.

In the current study, a number of Cell Pouches were implanted under the skin of the Cynomolgus monkey in a minimally invasive procedure mimicking the technique to be used in upcoming human trials. In summary:

The Cell Pouches were virtually undetectable under the skin following implantation, which is an important aesthetic characteristic for human use.

The safety profile of the Cell Pouch™ was exemplary throughout the eight week study with no skin irritation, no inflammation and no infections.

At the time of removal, the Cell Pouches™ at all assessment time points (2, 4 and 8 weeks) were well-incorporated with collagen and tissue, had well-established blood supplies and formed intra-pouch cavities suitable for therapeutic cell transplantation.

These key features of the Cell Pouch™ are believed to provide for long-term survival of therapeutic cells demonstrated in the Company's efficacy studies.

In June 2011, the Company was invited to deliver a podium presentation to leading diabetologists, pancreas and islet transplant clinicians and scientists at the 13<sup>th</sup> World Congress of the International Pancreas and Islet Transplant Association Conference (IPITA), Prague, Czech Republic in a presentation entitled, "Islet Sparing Potential of a Subcutaneous Cell Pouch™ for Allogeneic Islet Transplantation."

Important findings reported by the Company include:

- Glucose control was achieved using the Cell Pouch System™ at the lowest dose of islets transplanted, about 25% of the islets typically used in other international clinical islet transplantation programs. .
- Islet transplanted animals were C-peptide positive, a gold standard measure of islet released insulin glucose control.
- Presence of insulin in the islets within the Cell Pouch System™ was confirmed by insulin staining.
- Treated diabetic animals maintained good health including stable body weight confirming the effectiveness of the Cell Pouch System™ transplant.
- No adverse events related to the Cell Pouch System™ occurred during the study.

These results represent another significant preclinical safety and efficacy study of the Cell Pouch System™. The Company has now also confirmed in four controlled pre-clinical studies the robust tissue and microvessel development suitable for therapeutic cell transplant.

The Company has strong evidence that the Cell Pouch System™ as a platform technology is efficacious for autograft (self-tissue) transplants and could potentially be used to restore glucose control in chronic pancreatitis patients and for allograft (donor tissue) transplants for established diabetics administered an antirejection regimen. These consistent findings in multiple studies strongly support the advancement of the assessment of the Cell Pouch System™ into human clinical studies.

To help guide the diabetes research efforts, the Company has a Scientific Advisory Board chaired by Dr. David White. He is a noted immunologist, formerly a professor at Cambridge University in England and now Professor at the University of Western Ontario. Concurrent with the completion of the private placements, Dr. Toleikis initiated a program to recruit additional members for the Advisory Board in preparation for evolving the Company to a clinical stage company and the following announcements resulted:

On September 21, 2010, Dr. James Shapiro was appointed to the Company's Scientific Advisory Board. Dr. Shapiro is a world renowned transplantation scientist and clinician, and is currently Director of Clinical Islet Transplantation program at the University of Alberta, where he oversees the largest clinical islet transplant program in the world. Dr. Shapiro with a team at the University of Alberta was

instrumental in developing the Edmonton protocol, the current standard of care for islet transplantation. The experience and clinical expertise of Dr. Shapiro is considered invaluable to the Company as it continues to plan its clinical trials.

On October 19, 2010, Dr. David Sutherland was appointed to the Company's Scientific Advisory Board. Dr. Sutherland is a professor, Transplantation Scientist and Clinician in the Division of Transplantation, Director of the Schulze Institute and Dobbs Diabetes Research Chair within the Department of Surgery at the University of Minnesota where he oversees the largest clinical islet autotransplant program in the world. The addition of Dr. Sutherland to the Advisory Board represents another key component in the strategy of advancing the Cell Pouch System™ into Human Clinical Trials.

On December 16, 2010, Dr. Steven Paraskevas was appointed to the Company's Scientific Advisory Board. Dr. Paraskevas is highly respected in the islet transplant field and the new islet transplantation program at McGill University headed by Dr. Paraskevas is the third such centre in Canada and provides the potential to significantly increase the number of diabetic patients that can be treated with donor islets.

Also on the Scientific Advisory Board are Dr. Norman Wong, co-founder of Resverlogix and a Professor in the Departments of Medicine and Biochemistry & Molecular Biology at the University of Calgary, Dr. Jannette Dufour, an expert in Sertoli cells and Assistant Professor in the Department of Cell Biology and Biochemistry at Texas Tech University Health Sciences Center, Dr. Clive Patience a leading expert on biological safety of xenotransplants and currently Associate Director of Bioanalytical Quality Control at Biogen Idec. Inc., Dr. George King, an award winning diabetologist who is the Director of Research and Head of the Vascular Cell Biology Section at Joslin Diabetes Center, and a Professor of Medicine at Harvard Medical School, and Dr. Shinichi Matsumoto, a pancreatic islet transplant expert and Director of the Baylor All Saints Islet Cell Laboratory at the Baylor Research Institute.

### **Results of Operations**

For the Three and Six Months Ended April 30, 2011 the company recorded a loss of \$566,562 and \$1,088,218 respectively or \$0.01 per share versus a loss of \$425,609 and \$873,970 or \$0.01 per share for the corresponding period last year. The increase in the loss can be attributed to additional research and development expenditures, increased office, general and administration costs to support the research and the increased stock compensation cost.

Other Income for the Three and Six Months Ended April 30, 2011 was \$2,306 and \$5,978 compared to \$80 and \$336 for the same period in the prior year, an increase of \$5,642 for the six month period. The decrease in revenues from historic patterns is principally the result of the absence of royalty income for the reporting periods as the payment of royalties to the Company has been suspended due to financial difficulties of HealthWatchSystems Inc. and management is in discussion to resolve the issue. There have been a number of exchanges but no agreement on payment of the royalty arrears has been reached to date.

Research costs for the Three and Six Months Ended April 30, 2011 amounted to a net \$154,771 and \$267,787 while research costs for the Three and Six Months Ended April 30, 2010 were \$52,487 and \$151,058 respectively. During the Three and Six Months Ended April 30, 2011, the company recorded a contribution of \$88,004 and \$148,052 respectively from the National Research Council towards the costs of its product development, which amounts were netted from the research costs ( 2010 - \$156,314 and \$309,757 respectively).

Office, General and Administration expenses for the Three and Six Months Ended April 30, 2011 were \$64,617 and \$116,673 compared to \$49,797 and \$80,405 for the same periods in the prior year

representing an increase of \$36,268 or 145% for the six month period. The increased level of costs is reflective of the level of activity in the research and development activities, increased investor relations activity and attendance at conferences to promote the technology. Significant operating costs (defined as individual expense categories of approximately 10% of the total costs) for the Six Months Ended April 30, 2011 included travel expenses of \$18,955, regulatory fees of \$15,760, conference costs of \$20,619 and rent of \$14,400. Significant operating costs for the Six Months Ended April 30, 2010 included rent of \$14,400, travel costs of \$12,317, insurance of \$8,880 and shareholder costs of \$13,617.

Amortization of the capital assets and intangible assets for the Three and Six Months Ended April 30, 2011 was relatively unchanged year over year and amounted to \$215,211 and \$427,833 compared to \$209,488 and \$418,653 for the Three and Six Months Ended April 30, 2010.

Patent fees for the Three and Six Months Ended April 30, 2010 were \$10,631 and \$41,106 compared to \$7,933 and \$40,761 for the same period in the prior year. The changes in the expense can be regarded as a timing issue year over year.

Of the loss recorded for the Three and Six Months Ended April 30, 2011, \$54,254 and \$111,319 is related to the non-cash expense from stock based compensation (\$27,013 and \$47,520 for the same periods in the prior year) which is explained in Note 5 to the interim unaudited Consolidated Financial Statements. The increase in the stock compensation expense can be attributed to the stock option awards in the last two fiscal periods.

Consulting fees incurred by the Company have been relatively stable and amounted to \$32,994 and \$65,076 respectively for the Three and Six Months Ended April 30, 2011 (2010 - \$38,234 and \$73,199 for the same periods in the prior year).

No provision for income taxes or income tax recovery on either the current year or prior year earnings has been recorded in the Statement of Operations due to the existence of non-capital losses of \$4,105,000 in Canada and \$2,725,000 operating losses in the United States as at October 31, 2010. In assessing the realizability of future income tax assets, management considers whether it is more likely than not that some portion or all of the future tax assets will not be realized. The ultimate realization of future tax assets is dependent upon the generation of future taxable income.

Net loss for the Six Months Ended April 30, 2011 was \$1,088,218 compared to a net loss of \$873,970 for the same period in the prior year, an increase of \$214,248 or an increase of 25% in the level of the loss. The significant portion of this change in the loss can be attributed to the research and development costs of \$267,787, stock compensation expense of \$111,319 and the payment of patent fees and activities to support the scientific program. Basic and fully diluted loss per share for the Six Months Ended April 30, 2011 was \$0.01, compared with the basic and fully diluted loss per share of \$0.01 for the Six Months Ended April 30, 2010.

Selected summary data with respect to the statement of operations is set out below:

## **SUMMARY OF QUARTERLY RESULTS**

|      |                    | Ist Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|------|--------------------|-------------|-------------|-------------|-------------|
| 2009 | Net Loss           | (\$278,226) | (\$384,083) | (\$342,677) | (\$463,375) |
|      | Net Loss Per Share | \$0.00      | (\$0.01)    | (\$0.01)    | \$0.00      |
| 2010 | Net Loss           | (\$448,361) | (\$425,609) | (\$478,497) | (\$493,904) |
|      | Net Loss Per Share | (\$0.01)    | \$0.00      | (\$0.01)    | (\$0.01)    |
| 2011 | Net Loss           | (\$521,656) | (\$566,562) |             |             |
|      | Net Loss Per Share | (\$0.01)    | (\$0.01)    |             |             |

All financial information is expressed in Canadian dollars, and has been prepared in accordance with Canadian GAAP.

## **CASH FLOWS**

Cash flows used by the operating loss for the Three and Six Months Ended April 30, 2011 were \$297,097 and \$549,066 respectively compared with cash flows used by the operating loss of \$189,108 and \$407,797 for the same periods in the prior year, representing an additional use of cash resources of \$141,269 or 135% increase in the cash used by such operations. This change year over year is the result principally of increased product development expenditures and higher office, general and administration costs. It should be noted that that during the Six Months Ended April 30, 2011 the Company recorded a contribution of \$148,052 from the National Research Council, which non-repayable contribution is paying for a significant portion of the product development program, and supplementing the cash resources of the Company.

Cash provided by working capital balances for the Three and Six Months Ended April 30, 2011 was \$67,989 and \$38,018 respectively compared with cash used by working capital of \$25,209 and \$119,002 for the same periods in the prior year. The change in the Three and Six Months Ended April 30, 2011 arose for a number of reasons including the changes in and timing of amounts receivable due under the grant from the National Research Council and from Subscriptions Receivable from the issuance of capital stock. The changes in accounts payable and in accrued liabilities in the period arises from the settlement of the current liabilities as at October 31, 2010, and the timing of contractors bills related to the research activities. In the Three and Six Months Ended April 30, 2010, the changes in working capital can be attributed to many of the same underlying reasons.

Regarding financing activities, the company received \$16,462 and \$657,457 in net proceeds from the issuance of capital stock and the exercise of warrants in the Three and Six Months Ended April 30, 2011. Regarding financing activities, the company received \$400,813 and \$528,746 in net proceeds from the issuance of capital stock and the exercise of warrants in the Three and Six Months Ended April 30, 2010.

With respect to investing activities, the only activity was cash invested in patents and trademarks which amounted to \$40,755 and \$65,530 for the Three and Six Months Ended April 30, 2011 compared to \$10,238 and \$25,787 for the same periods in the prior year.

Accordingly, while cash resources were reduced by a net \$253,401 for the Three Months Ended April 30, 2011 as a result of continued operations, in contrast cash resources increased by a net \$80,879 in the Six Months Ended April 30, 2011 as a result of the issuance of capital stock. Cash resources were increased in the Three Months and reduced in the Six Months Ended April 30, 2010 by \$176,258 and \$23,840 respectively. The changes in the prior year resulted from the timing of issuance of capital stock. As stated above, contributions under the non-repayable grant from the National Research Council were \$148,052 in the Six Months Ended April 30, 2011, compared to \$309,774 for the prior year, which grants assist with the cost of research activities

## **LIQUIDITY AND CAPITAL RESOURCES**

In the Six Months Ended April 30, 2011, the Company has experienced an increase in working capital of \$39,361 compared to an improvement of \$95,162 for the Six Months Ended April 30, 2010, and accordingly as at April 30, 2011 had working capital of \$775,023. Management will continue to explore opportunities to raise additional capital and other funds, and to find collaborative partners for the commercialization of its technologies. Proceeds of the offering in November and December and the exercise of warrants in the second quarter of fiscal 2011 will be used to fund ongoing development of Sernova's proprietary Cell Pouch System™, including cGMP manufacturing, pre-clinical studies required by regulatory authorities to support a future Phase I/II human clinical study of insulin-dependent diabetes, and for general working capital.

As at April 30, 2011, the Company had recorded a cumulative contribution of \$204,131 of the non-repayable grant of \$275,000, leaving the balance of \$70,869 to be claimed in the period to August 15, 2011. In accordance with that agreement, the Company will be reimbursed for 97% of designated salary costs and 75% of contractor fees.

There are no significant commitments for purchase or rental of equipment.

Management will manage the investing activities related to patent and trademarks in light of the current cash resources but realizing the need to extend the number of current patents and in the Three and Six Months Ended April 30, 2011 invested \$40,775 and \$65,530 compared to \$10,238 and \$25,787 respectively for the same periods in the prior year.

The Company is committed to monthly payments of rental space of \$2,400 per month on a short term basis and had recorded \$14,400 as an expense for the Six Months Ended April 30, 2011 and 2010.

As at April 30, 2011, the Company had cash of \$816,021 compared to \$735,142 as at October 31, 2010. In addition, the Company has grants receivable of \$26,339 as at April 30, 2011 (\$61,287 – April 30, 2010) which will provide additional cash resources to meet the cost of its programs in the near future. The Company may continue to face significant uncertainty relating to liquidity and intends to continue to search for additional sources of capital and working funds for research and administrative costs and to fund the planned projects, and/or to actively search for collaborative partners for various projects.

There are no defaults under operating agreements and management does not anticipate any significant risks that there will be such a default in the period to October 31, 2011.

## **GOING CONCERN**

These interim unaudited Consolidated Financial Statements have been prepared in accordance with Canadian generally accepted accounting principles assuming the Company will continue as a going-concern basis. The Company has incurred losses since inception and the ability of the Company to continue as a going-concern depends upon its ability to develop profitable operations and to continue to raise adequate financing. Management is actively targeting sources of additional financing which would assure continuation of the Company's operations and research programs. In order for the Company to meet its liabilities as they come due and to continue operations, the Company remains solely dependent upon its ability to generate such financing.

There can be no assurance that the Company will be able to continue to raise funds in which case the Company may be unable to meet its obligations. Should the Company be unable to realize on its assets and discharge its liabilities in the normal course of business, the net realizable value of its assets may be materially less than the amounts recorded on the balance sheet. The interim unaudited Consolidated

Financial Statements do not include adjustments to amounts and classifications of assets and liabilities that might be necessary should the Company be unable to continue operations.

The Company is and has experienced negative operating cash flows and needs to invest in continuing patents and trademarks which cannot be met from existing cash balances. The Company will continue to search for new funds and for new collaborative partners for the research but anticipates that the current market conditions may impact the ability to source such funds.

## **BALANCE SHEET**

Total assets as at April 30, 2011 were \$3,672,583 compared with \$4,034,486 at the end of the Company's last year end, representing a decrease of \$361,903 or 9%. The decrease in the level of assets can attributed to by the amortization of the intangible assets and a reduction in the level of accounts receivable as outlined in note 3 to the unaudited interim consolidated financial statements, offset by an increase in cash resources.

Total current assets of \$876,559 have remained relatively unchanged from the balance of \$879,659 as at October 31, 2010, and reflect the additional cash resources of \$80,879 offset by lower accounts receivable of \$36,665 and the decrease in prepaid expenses as these expense were amortized to the statement of operations.

The net book value of equipment of \$4,096 in the Company remains relatively unchanged from the balance as at October 31, 2010 and reflects the decision of management not to invest in new additions, and the change in value can be attributed to the amortization of such assets.

The net book value of intangible assets, including patents and trademarks, as at April 30, 2011 declined to \$2,791,928 from \$3,149,366 as at the end of the prior year. Additions in the Three and Six Months Ended April 30, 2011 amounted to \$40,755 and \$65,530 (\$10,238 and \$25,787 for the same periods in the prior year). Amortization of intangible assets was \$214,529 and \$426,468 for the Three and Six Months Ended April 30, 2011 compared to \$ 208,806 and \$415,989 for the same periods in the prior year, which accounted for the net decrease in net book value.

Accounts payable and accrued liabilities were \$101,536 at the April 30, 2011 compared to \$143,997 as at October 31, 2010, a decrease of \$42,461. The decrease is the result of timing of receipt and settlement of contractor invoices for services, the cyclical nature of certain expenses and settlement payments with its trade creditors on a current basis. It is anticipated that substantially all accounts payable and accrued liabilities as at April 30, 2011 will be settled in the subsequent quarter of the fiscal year.

On November 4, 2010, the Company completed a second closing of a non-brokered private placement of 2,866,667 units at \$0.15 per unit for gross proceeds of \$430,000. Each unit consisted of one common share of the Company and one-half of a common share purchase warrant. Each whole warrant entitles the holder to acquire on additional common share at an exercise price of \$0.20 per share for a period of 24 months from the closing date. The Company paid finders' fees of \$11,150 to finders and issued 21,000 finder warrants, valued at \$1,450.

On December 7, 2010, the Company completed a non-brokered private placement of 1,400,000 units at a price of \$0.16 per unit raising gross proceeds of \$224,000. Each unit consisted of one common share of the Company and one-half of a common share purchase warrant. Each whole warrant entitles the holder to acquire on additional common share at an exercise price of \$0.20 per share for a period of 24 months from the closing date.

In March 2011, 223,467 Agents' warrants were exercised at a price of \$0.10 per share for gross proceeds of \$22,347.

There were no changes in stock options for the Three and Six Months Ended April 30, 2011 and 2010, except for the expiry of 585,000 stock options on March 28, 2011. Accordingly, there are 5,398,458 options outstanding to employees, consultants, officers and directors as at April 30.

During the Three and Six Months Ended April 30, 2010, the Company issued 1,350,833 and 2,691,833 common share purchase warrants and 46,923 finders warrants in connection with the private placements. In the same period, 450,000 common shares were issued in exchange for an equal number of warrants at an exercise price of \$0.05 per warrant for gross proceeds of \$22,500. Accordingly the Company had 6,651,223 outstanding warrants as at April 30, 2010.

During the Three and Six Months Ended April 30, 2011 the Company issued a total of Nil and 2,133,334 common share purchase warrants, and Nil and 21,000 finder's warrants, which finders' warrants were valued at \$1,450, as part of the offering of units noted above. In addition, during the Three and Six Months Ended April 30, 2011 223,467 and 253,467 agents' warrants were exercised at an exercise price of \$0.10 per common share for gross proceeds of \$22,347 and 25,347 respectively.

Details of the warrants and stock options are detailed in Note 5 to the interim unaudited Consolidated Financial Statements.

### **OFF-BALANCE SHEET ARRANGEMENTS**

The Company does not have any off-balance sheet arrangements.

### **TRANSACTIONS WITH RELATED PARTIES**

During the Three and Six Months Ended April 30, 2011 the Company paid \$18,750 and \$37,500 (2010- \$20,687 and \$39,437 respectively) in consulting fees for the services of the Chief Financial Officer, paid to a company controlled by the officer.

During the Three and Six Months Ended April 30, 2010, the Company paid \$1,937 to Jeffrey Bacha, a Director of the Company for his services in conducting an internal review of the Company's research and development, financing and partnering activities and strategies.

These transactions are in the normal course of operations and are measured at the exchange amount, which is the amount of consideration established and agreed to by the parties. Amounts due to related parties are non-interest bearing, unsecured and have no specific repayment terms.

### **PROPOSED TRANSACTIONS**

There is no proposed asset or business acquisition or disposition that the Company's Board of Directors has decided to proceed with, or that senior management believes will be probably confirmed by the Board of Directors.

### **NEW ACCOUNTING PRONOUNCEMENTS**

Changes in accounting policies

#### *Business Combinations, Non-controlling Interest and Consolidated Financial Statements*

In January 2009, the CICA issued Handbook Sections 1582 "Business Combinations", 1601 "Consolidated Financial Statements" and 1602 "Non-controlling Interests" which replace CICA Handbook Sections 1581 "Business Combinations" and 1600 "Consolidated Financial Statements".

Section 1582 establishes standards for the accounting for business combinations that is equivalent to the business combination accounting standard under IFRS. Section 1582 is applicable for the Company's business combinations with acquisition dates on or after January 1, 2011. Early adoption of this Section is permitted. Section 1601 together with Section 1602 establishes standards for the preparation of consolidated financial statements. Section 1601 is applicable for the Company's interim and annual consolidated financial statements for its fiscal year beginning November 1, 2011. Early adoption of this Section is permitted and all three Sections must be adopted concurrently.

#### *International Financial Reporting Standards ("IFRS")*

In 2006, the Canadian Accounting Standards Board ("AcSB") published a new strategic plan that will significantly affect financial reporting requirements for Canadian companies. The AcSB strategic plan outlines the convergence of Canadian GAAP with IFRS over an expected five year transitional period. In February 2008, the AcSB announced that 2011 is the changeover date for publicly-listed companies to use IFRS, replacing Canada's own GAAP. The date is for interim and annual financial statements relating to fiscal years beginning on or after January 1, 2011. The transition date for the Company will be November 1, 2011 and will require the restatement for comparative purposes of amounts reported for the year Ended October 31, 2011.

Management has completed phase one, IFRS Scoping phase, and is now advancing through phase two, the Planning stage. Management prepared a component evaluation of its existing financial statement line items, comparing Canadian GAAP to the corresponding IFRS guidelines, and has identified a number of differences. Many of the differences identified are not expected to have a material impact on the reported results and financial position. Management is working towards policy choices by quarter three of the current 2011 fiscal year.

Management will also consider the impact of IFRS on the following aspects of its business:

- . Adequacy of information systems
- . Impact on internal controls
- . Financial reporting expertise

The Company intends to take the following steps to prepare for the transition:

- . Implement employee training on the new IFRS standards. Training efforts will primarily focus on educating those individuals, whose roles and responsibilities will be directly impacted by the changes. The Company will also be working with the audit committee of the board of directors to provide awareness of IFRS and guidance as to the potential impact of the changes on its consolidated financial statement and accounting practices.
- . Assessing the accounting and reporting differences between IFRS and GAAP, selecting the appropriate IFRS accounting policies and development of IFRS financial formats. Management will develop a checklist of financial and reporting items which will be affected by IFRS reporting standards.
- . Assessing the implications of IFRS on its internal systems and processes including documentation and internal controls.
- . Assessing the implications of IFRS on all other areas of its business, including contractual arrangements with its consultants, collaborations and third party contracts.

Most adjustments required on transition to IFRS will be made, retrospectively, against opening retained earnings as of the date of the first comparative balance sheet presented based on standards applicable at that time.

IFRS 1, “First-Time Adoption of International Financial Reporting Standards”, provides entities adopting IFRS for the first time with a number of optional exemptions and mandatory exceptions, in certain areas, to the general requirement for full retrospective application of IFRS. During the second quarter of 2011, management will prepare a presentation to the Audit Committee and the Board of Directors which will focus on the key issues and transitional choices under IFRS 1 applicable to the Company.

Our adoption of IFRS will be impacted by our IFRS 1 elections and by ongoing policy choices. IFRS 1 sets out procedures that we must follow when we prepare our consolidated financial statements for the first time after adopting IFRS. The IFRS 1 elections we expect to make upon transition are summarized below; these elections may change pending further development in IFRS during our transition year.

We have also determined that our critical accounting policies under IFRS will be the same as those under Canadian GAAP.

Set out below are the most significant areas, management has identified to date, where changes in accounting policies may have the highest potential impact on the Company’s consolidated financial statements based on the accounting policy choices approved by the Audit Committee and Board of Directors.

In the period leading up to the changeover in 2011, the AcSB has ongoing projects and intends to issue new accounting standards during the conversion period. As a result, the final impact of IFRS on the Company’s consolidated financial statements can only be measured once all the IFRS accounting standards at the conversion date are known. Management will continue to review new standards, as well as the impact of the new accounting standards, between now and the conversion date to ensure all relevant changes are addressed.

#### *Impairment of Assets*

Canadian GAAP generally uses a two-step approach to impairment testing: first comparing asset carrying values with undiscounted future cash flows to determine whether impairment exists; and then measuring any impairment by comparing asset carrying values with discounted cash flows. International Accounting Standard (IAS) 36, “Impairment of Assets” uses a one-step approach for both testing and measurement of impairment, with asset carrying values compared directly with the higher of fair value less costs to sell and value in use (which uses discounted future cash flows). This may potentially result in write downs where the carrying value of assets were previously supported under Canadian GAAP on an undiscounted cash flow basis, but could not be supported on a discounted cash flow basis.

#### *Share Based Payments*

IFRS and Canadian GAAP largely converge on the accounting treatment for share – based transactions with only a few differences.

Canadian GAAP allows either accelerated or straight line method of amortization for the fair value of stock options under graded vesting. Currently, the Company is using the straight line method. IFRS 2, on the other hand, allows only the accelerated method.

Under IFRS, the estimate for forfeitures must be made when determining the number of equity instruments expected to vest, while under Canadian GAAP forfeitures can be recognized as they occur.

Upon adoption of IFRS, the Company will change both the method of amortization, which would give rise to an accelerated compensation expense, and the method of forfeiture recognition.

### *Future Income Taxes*

Like Canadian GAAP, deferred income taxes under IFRS are determined using the liability method for temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes, and by generally applying tax rates applicable to the Company to such temporary differences. Deferred income taxes relating to temporary differences that are in equity are recognized in equity and under IFRS subsequent adjustments thereto are backward traced to equity.

IFRS prohibits recognition where deferred income taxes arise from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither accounting nor taxable net earnings. The Company expects the impact of implementing IAS 12, Income Taxes to not have an impact on the financial statements. However, as events and circumstances of the Company's operations change that give rise to future income taxes, IAS 12 will be applied.

As the Company elects and approves the IFRS accounting policy for each of the areas above, management will determine and disclose impact of the IFRS adoption at the transition date on our financial statements. The International Accounting Standards Board will also continue to issue new accounting standards during the conversion period and, as a result, the final impact of IFRS on the Company's consolidated financial statements will only be measured once all the IFRS applicable accounting standards at the conversion date are known.

In the period leading up to the changeover in 2011, the AcSB has ongoing projects and intends to issue new accounting standards during the conversion period. As a result, the final impact of IFRS on the Company's consolidated financial statements can only be measured once all the IFRS accounting standards at the conversion date are known. Management will continue to review new standards, as well as the impact of the new accounting standards, between now and the conversion date to ensure all relevant changes are addressed.

### **DISCLOSURE OF OUTSTANDING SHARE DATA**

As at date of this report, the Company has 88,285,298 common shares issued and outstanding.

The Company also has a total of 5,398,458 outstanding stock options outstanding as at April 30, 2011 (April 30, 2010 – 3,396,375). Details of the number of such options, the exercise price and the expiry dates are outlined in Note 5 to the interim unaudited Consolidated Financial Statements. Of this total, 3,612,910 are exercisable as at April 30, 2011 compared to 3,101,922 as at October 31, 2010.

The Company has 11,014,363 common share purchase warrants outstanding as at the date of this report, as 11,340 finders' warrants were exercised at an exercise price of \$0.15 per warrant on May 24, 2011 compared to 9,124,836 as at October 31, 2010. There were 6,651,223 outstanding warrants as at April 30, 2010.

### **FINANCIAL INSTRUMENTS**

The Company's financial instruments consist of cash and equivalents, short term investments, receivables and accounts payable and accrued liabilities. Unless otherwise noted, it is management's

opinion that the Company is not exposed to significant interest or credit risks arising from these financial instruments. The fair value of these financial instruments approximates their carrying value, unless otherwise noted. The Company is subject to any significant financial risk arising from fluctuations in foreign currency exchange rates. The Company does not use any derivative instruments to reduce its exposure to fluctuations in foreign currency exchange rates. (refer to Note 12 in the interim unaudited Consolidated Financial Statements).

## **RISKS AND UNCERTAINTIES**

### **Investment Risk**

***Volatility of Share Price, Absence of Dividends and Fluctuation of Operating Results.*** Market prices for the securities of biotechnology companies, including the Issuer, have historically been highly volatile. Factors such as fluctuation of the Issuer's operating results, announcements of technological innovations, patents or new commercial products by the Issuer or 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 the common shares. The Issuer's 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. The Issuer has not paid dividends to date and does not expect to pay dividends in the foreseeable future.

### **Issuer Risk**

***Early Stage Development and Scientific Uncertainty.*** The Issuer's 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 is 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 the Issuer in sufficient amounts or in a timely fashion to allow the Issuer 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 the Issuer is to complete the development of any product. It is not known whether any of these product or process 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 the Issuer's investment in any such products will be recovered through sales or royalties.

***Additional Financing Requirements and Access to Capital.*** The Issuer 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 its products. The Issuer may attempt to raise additional funds for these purposes through public or private equity or debt financing, collaborations with other biopharmaceutical companies and/or from other sources. There can be no assurance that additional funding or partnership will be available on terms acceptable to the Issuer and which would foster successful commercialization of the Issuer's products.

***Patents and Proprietary Technology.*** The Issuer's success will depend in part on its 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 the Issuer will develop additional proprietary products that are patentable, that issued patents will provide the Issuer 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 the ability of the Issuer to do business.

Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Issuer's products, or design around the products patented by the Issuer. In addition, the Issuer 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 the Issuer. If the Issuer does not obtain such licenses it could encounter delays in introducing one or more of its products to the market, while it attempts to design around such patents, or could find that the development, manufacturing or sale of products requiring such licenses could be foreclosed. In addition, the Issuer could incur substantial costs in defending itself in suits brought against it on such patents or in suits where it attempts to enforce its own patents against other parties.

Until such time, if ever, that patent applications are filed, the ability of the Issuer to maintain the confidentiality of its technology may be crucial to its ultimate possible commercial success. While the Issuer has adopted procedures designed to protect the confidentiality of its technology, no assurance can be given that such arrangements will be effective, that third parties will not gain access to the Issuer's trade secrets or disclose the technology, or that the Issuer can meaningfully protect its rights to its trade secrets.

***Dependence on Collaborative Partners, Licensors and Others.*** The Issuer currently utilizes technology which has been licenced to it and technology which has been developed by its own researchers. In particular, the Issuer is dependent upon the licence to use certain technology provided under a sublicense agreement with Sertoli Technologies Inc. dated August 9, 2006 for the development of its product candidates. While the Issuer's licences are in good standing, they may be terminated by the licensor if there is a breach of the licensing agreement.

The Issuer's activities will require it 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 its products. The Issuer intends to attract corporate partners and enter into additional research collaborations. There can be no assurance, however, that the Issuer will be able to establish such additional collaborations on favourable terms, if at all, or that its current or future collaborations will be successful. Failure to attract commercial partners for its products may result in the Issuer incurring 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 the Issuer will have rights, the Issuer's 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 the Issuer's competitors, as a means for developing treatments for the diseases targeted by the Issuer's programs.

Furthermore, the Issuer will hold licenses for certain technologies and there can be no assurance that these licenses will not be terminated, or that they will be renewed on conditions acceptable to the Issuer. The Issuer intends 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. The Issuer 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.

***Reliance on Key Personnel.*** The Issuer is dependent on certain members of its management and scientific staff as well as consultants and contractors, the loss of services of one or more of whom could adversely affect the Issuer. In addition, the Issuer's ability to manage growth effectively will require it to continue to implement and improve its management systems and to recruit and train new

employees. There can be no assurance that the Issuer will be able to successfully attract and retain skilled and experienced personnel.

***Lack of Product Revenues and History of Losses.*** To date, the Issuer has not recorded any revenues from the sale of cell therapy products. The Issuer expects to incur additional losses during the periods of research and development, clinical testing, and application for regulatory approval of its product candidates. The Issuer expects to incur losses unless and until such time as payments from corporate collaborations, product sales and/or royalty payments generate sufficient revenues to fund its continuing operations.

***Conflict of Interest.*** Certain of the directors and senior officers of the Issuer may, from time to time, be employed by or affiliated with organizations which have entered into agreements with the Issuer. As disputes may arise between these organizations and the Issuer, or certain of these organizations may undertake or have undertaken research with competitors of the Issuer, there exists the possibility for such persons to be in a position of conflict. Any decision or recommendation made by these persons involving the Issuer will be made in accordance with his or her duties and obligations to deal fairly and in good faith with the Issuer 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.

### **Industry Risk**

***Government Regulations.*** Biotechnology and pharmaceutical companies operate in a high-risk regulatory environment. The manufacture and sale of animal and human diagnostic and therapeutic products is governed by numerous statutes and regulations in the United States, Canada and other countries where the Issuer intends to market its 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 the ability of the Issuer to utilize its technology, thereby adversely affecting operations. Further, there can be no assurance that the Issuer's diagnostic product candidates will achieve levels of sensitivity and specificity sufficient for regulatory approval or market acceptance, or that its therapeutic product candidates prove to be safe and effective in clinical trials, or receive the requisite regulatory approval. There is no assurance that the Issuer 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 the Issuer's research and development processes will involve the controlled use of hazardous materials. The Issuer is 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 management of the Issuer 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, the Issuer could be held liable for damages and such liability could exceed the resources of the Issuer. The Issuer is not specifically insured with respect to this liability. Although management of the Issuer believes that it currently complies in all material respects with applicable environmental laws and regulations, the Issuer may be required to incur significant costs to comply with environmental laws and regulations in the future. Furthermore, there can be no assurance that the operations, business or assets of the Issuer will not be materially adversely affected by current or future environmental laws or regulations.

***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 the Issuer's proposed products or technologies non-competitive, or that the Issuer 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 diagnostic or therapeutic effect as compared with products to be developed by the Issuer, and could be more effective and less costly than the products to be developed by the Issuer. In addition, alternative forms of medical treatment may be competitive with the Issuer's products.

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

**Status of Healthcare Reimbursement.** The Issuer's ability to successfully market certain diagnostic or 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 the Issuer to realize an acceptable return on its 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 the Issuer, 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 the Issuer's products. A product liability claim brought against the Issuer, or withdrawal of a product from the market, could have a material adverse effect upon the Issuer and its financial condition.

## **MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING**

These interim unaudited Consolidated Financial Statements have been prepared by management in accordance with Canadian generally accepted accounting principles, and have been approved by the Board of Directors. The integrity and objectivity of these interim unaudited Consolidated Financial Statements are the responsibility of management. In addition, management is responsible for ensuring that this information is consistent, where appropriate, with the information contained in the interim unaudited Consolidated Financial Statements.

In support of this responsibility, the Company's management maintains systems of internal accounting and administrative controls to provide reasonable assurance that the financial information is relevant, reliable and accurate and that the Company's assets are appropriately accounted for and adequately safeguarded. When alternative accounting methods exist, management has chosen those it deems most appropriate in the circumstances. These interim unaudited Consolidated Financial Statements may include certain amounts based on estimates and judgments. Management has determined such amounts on a reasonable basis to ensure that the interim unaudited Consolidated Financial Statements are presented fairly in all material respects.

The Company maintains a set of disclosure controls and procedures designed to ensure that the information required to be disclosed in filings made pursuant to Multilateral Instrument 52-109 is recorded, processed, summarized and reported within the time periods specified in the Canadian Securities Administrators rules and forms. The Company's Chief Executive Officer and Chief Financial Officer have evaluated the Company's disclosure controls and procedures as of October 31, 2010 and in the Three and Six Months Ended April 30, 2011, and concluded that the current disclosure controls and procedures are effective.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board carries out this responsibility principally through its Audit Committee. The Audit Committee is appointed by the Board and has at least one financial expert, and none of its members are involved in the daily operations of the Company. The Audit Committee meets periodically with management and the external auditor to discuss controls over the financial reporting process, auditing matters and financial reporting issues, to satisfy itself that each party is properly discharging its responsibilities, and to review the annual Consolidated Financial Statements with the external auditors.

The Committee reports its finding to the Board for consideration when approving the interim unaudited Consolidated Financial Statements for issuance to shareholders. The Committee also considers, for recommendation by the Board and approval by the shareholders, the reappointment of the external auditors.

Due to the limited number of appropriately qualified staff, there is little segregation of duties within the financial internal control environment of the Company. Functions that would normally be segregated within a typical control environment are performed by one individual and the preparation and authorization of certain activities that would normally be separated are not as only one member of staff is responsible for substantially all of the day-to-day finance functions and the financial reporting of the Company. Due to the lack of segregation of duties, management has identified certain control weaknesses. The Company relies on certain compensating controls, including substantive periodic review of the financial statements, to ensure that disclosure controls and procedures are effective. The Chairman of the Board of Directors and Chief Financial Officer have concluded that disclosure controls and procedures are effective to provide reasonable assurance that all material or potentially material information about the activities of the Company is made known to them by others within the Company.

There are no changes to the critical accounting estimates as a result of the current market conditions that require any special disclosure at this time. Amounts included in the current assets are deemed collectible and do not require adjustment and management is comfortable as to the recoverability of the long term assets as at April 30, 2011.

There have been no significant changes to the Company's internal control environment during the Three and Six Months Ended April 30, 2011 and subsequent to that date that would have materially affected the Company's internal controls over financial reporting.