



## **Management's Report on Financial Position and Operating Results**

**For the three months ended March 31, 2013**

## LETTER TO SHAREHOLDERS

Dear Fellow Shareholder,

2013 has started well for our company. Immunovaccine continues to deliver on its most important milestones by advancing the clinical development of our DepoVax™ technology platform in two cancer vaccine programs. The pharmaceutical industry has begun to recognize the value of cancer vaccines as an important defense against many cancer types. Late stage trials in other companies suggest that vaccines can boost the immune response in many patients to help prevent recurrence of cancers, taking us closer to the goal of turning cancer into a manageable, long-term illness instead of a life-threatening disease. The scientific community is particularly enthusiastic about the promise shown by combining vaccines with other existing immune-boosting therapies, the approach we have employed in our latest study on ovarian cancer. The data from that trial was released in January. The biotech investment community has begun to see the potential of cancer immunotherapy and has become more active in this area, even if the retail investment community has yet to awaken to the potential. You can find a more detailed industry update in the updated industry report from Joseph Pantginis, Ph.D., from Roth Capital, available on our web site at <http://imvaccine.com/RothReport/>.

IMV announced the following achievements during the quarter:

**Positive Phase I Clinical Data for DPX-Survivac for the Treatment of Ovarian Cancer** – DPX-Survivac, our lead product, delivered sustained and dose-related immune responses in our Phase I ovarian cancer study. The results showed a targeted immune response in all patients treated with the vaccine therapy. Importantly, the trial produced strong CD8 T cell responses that were clearly detected in the blood of the vaccinated patients. The fact that DPX-Survivac can generate and maintain this response is the first step in showing that our vaccine may be able to help find and destroy the cancer cells that have escaped from the original tumors and have scattered throughout the body, leading to recurrence of the disease. A Phase II trial is now necessary to show that this enhanced immune response does indeed prevent recurrence.

**DPX-0907 Phase I/II Trial to be Conducted in Europe for Breast and Ovarian Cancer** – The Company agreed to allow use of its DPX-0907 vaccine to be used in a study of breast and ovarian cancer patients at the Busto Arsizio Hospital in Italy. Marco Bregni, M.D., head of the Oncology Unit of the Hospital of Busto Arsizio, will serve as the principal investigator for the Phase I/II DPX-0907 clinical trial. Immunovaccine expects the Phase I/II study to be initiated during the fourth quarter of 2013. The study, funded by Busto Arsizio, will provide important additional data about the effectiveness of our delivery system and our first cancer vaccine. Results of the study are expected to be reported by the end of 2014.

**Pre-Clinical Data Reported for Anthrax Vaccine Showing DepoVax™ Effective in Boosting Protection** - Immunovaccine's DepoVax™ formulated anthrax vaccine generated positive results from an immunogenicity study that is part of an ongoing bio-defense research program conducted in partnership with the National Institutes of Health in the US. Study findings suggested that the DepoVax™-based vaccines provided a more rapid and long lasting immune response than the licensed anthrax vaccine BioThrax™ currently in use. The study was designed to test multiple DepoVax™-formulated anthrax vaccines in non human primates after either one or two doses of the DepoVax™-based vaccine versus two doses of BioThrax™.

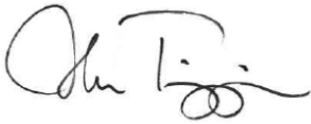
**IMV Receives Industrial Research Assistance Program (IRAP) funding to Support Development of an RSV Vaccine Formulated with DepoVax™** - The Canadian government's IRAP program will provide funding of up to \$407,700 to Immunovaccine to develop a vaccine for respiratory syncytial virus (RSV), a lung disease in children, the elderly and patients with a compromised immune system that kills some 160,000 people world-wide each year. The funding will be used to advance Immunovaccine's RSV program, including the formulation of RSV antigens in IMV's patented DepoVax™ vaccine-adjuvanting technology. This will be our first human trial in infectious diseases. The project will be led by Dr. Joanne Langley and Dr. Scott Halperin at Dalhousie University in Halifax. Our approach to

treatment utilizes our immune-boosting delivery system to attack a viral disease that has proven resistant to numerous other drug and vaccine therapies over many years. It is just the sort of challenge that we welcome.

**IMV Completes Private Placement** – The Company closed a private placement of its securities, raising gross proceeds of \$1.6 million. Proceeds from the financing will be used to fund preclinical research and development efforts in the areas of infectious diseases, including RSV, malaria and anthrax. The proceeds will also support preparatory work to advance IMV's clinical stage oncology program, DPX-Survivac into Phase II development, as well as to establish key alliances, collaborations and strategic transactions.

This combination of good news on so many fronts has provided a promising start to the year. All of these projects are being developed with research funding provided by government agencies and research organizations, allowing us to conserve our equity for corporate development. We expect to begin our Phase II clinical trial for DPX-Survivac with that same kind of support. In addition, we will continue our efforts to expand our university funded and investigator driven trials for DPX-Survivac, such as the one we've recently announced for DPX-0907, to capitalize on the broad potential of DPX-Survivac in additional tumor types.

Thank you for your continued support,

A handwritten signature in black ink, appearing to read "John Trizzino". The signature is fluid and cursive, with a large initial "J" and "T".

John J. Trizzino

## **MANAGEMENT DISCUSSION AND ANALYSIS (“MD&A”)**

The following analysis provides a review of the unaudited interim condensed consolidated results of operations, financial condition and cash flows for the three months ended March 31, 2013 (“Q1 Fiscal 2013”), with information compared to the three months ended March 31, 2012 (“Q1 Fiscal 2012”), for Immunovaccine Inc. (“Immunovaccine” or the “Company”). This analysis should also be read in conjunction with the information contained in the audited consolidated financial statements and related notes for the year ended December 31, 2012 and the year ended December 31, 2011.

The Company prepares its unaudited interim condensed consolidated financial statements in accordance with Canadian generally accepted accounting principles as set out in the Handbook of the Canadian Institute of Chartered Accountants – Part I (“CICA Handbook”), which incorporates International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”).

Additional information regarding the business of the Company, including the Company’s Annual Information Form, is available on SEDAR at [www.sedar.com](http://www.sedar.com).

Amounts presented in this MD&A are approximate and have been rounded to the nearest thousand except for per share data. All amounts are presented in Canadian dollars.

Statistical information and other data relating to the pharmaceutical and biotechnology industry included in this MD&A are derived from recognized industry reports published by industry analysts, industry associations and/or independent consulting and data compilation organizations. Market data and industry forecasts used throughout this MD&A were obtained from various publicly available sources. Although the Corporation believes that these independent sources are generally reliable, the accuracy and completeness of the information from such sources are not guaranteed and have not been independently verified.

## **FORWARD-LOOKING STATEMENTS**

Certain statements in this MD&A may constitute “forward-looking” statements which involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. When used in this MD&A, such statements use such words as “will”, “may”, “could”, “intends”, “potential”, “plans”, “believes”, “expects”, “projects”, “estimates”, “anticipates”, “continue”, “potential”, “predicts” or “should” and other similar terminology. These statements reflect current expectations regarding future events and operating performance and speak only as of the date of this MD&A. Forward looking statements include, among others:

- statements with respect to the sufficiency of the Company’s financial resources to support activities;
- potential sources of funding;
- the Company’s ability to obtain necessary funding on favorable terms or at all;
- the Company’s expected expenditure and accumulated deficit level;
- the Company’s expected outcomes from ongoing research and research collaborations;
- the Company’s business strategy;
- the Company’s exploration of opportunities to maximize shareholder value as part of the ordinary course of its business through collaborations, strategic partnerships and other transactions with third parties, which may or may not include plans for merger and acquisitions activities;
- the Company’s plans for the research and development of certain product candidates;
- the Company’s strategy for protecting its intellectual property;
- the Company’s ability to identify licensable products or research suitable for licensing and commercialization;
- the Company’s ability to obtain licences on commercially reasonable terms;
- the Company’s plans for generating revenue; and
- the Company’s plans for future clinical trials.

Forward-looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements, including, but not limited to, the factors discussed under “Risk Factors”. Although the forward-looking statements contained in this MD&A are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements and should not be unduly relied upon by investors.

Actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking statements contained in this MD&A. Such statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions about:

- obtaining additional funding on reasonable terms when necessary;
- positive results of pre-clinical and clinical tests;
- the Company’s ability to successfully develop existing and new products;
- the Company’s ability to attract and retain skilled staff;
- the products and technology offered by the Company’s competitors;
- general business and economic conditions;
- the Company’s ability to protect patents and proprietary rights;
- the Company’s ability to manufacture its products and to meet demand; and
- regulatory approvals.

These statements reflect management’s current beliefs and are based on information currently available to management. The information contained herein is dated as of May 16, 2013; the date of the Board’s approval of the MD&A and the Q1 Fiscal 2013 unaudited interim condensed consolidated financial statements. A more detailed assessment of the risks that could cause actual results to materially differ from current expectations is contained in the section entitled “Risk Assessment” of this MD&A.

## **COMPANY OVERVIEW**

Immunovaccine is a biotechnology company focused on the development and clinical advancement of its patented DepoVax™ vaccine-adjuvanting platform. Based on this platform, the Company is developing multiple therapeutic cancer vaccines and vaccines for infectious diseases and has out-licensing agreements to develop animal health vaccines. Based on reported pre-clinical and clinical data, the Company believes the DepoVax™ platform produces a strong, high-quality immune response that has a specific and sustained immune effect. The Company’s adjuvanting technology platform has broad application and is being evaluated in multiple vaccine candidates, including two cancer vaccine candidates that are in or have completed Phase I clinical trials. Immunovaccine has research collaborations for infectious diseases and other cancer vaccine candidates with several leading biotechnology companies and research organizations, including the US National Institutes of Health (“NIH”). In addition to the Company’s human health vaccine strategy, it continues to capture value from animal health vaccine applications. The Company has developed relationships with two of the world’s leading animal health companies, one of which is Zoetis, formerly the animal health division of Pfizer, which has licensed the Company’s delivery technology to develop vaccines for livestock.

Based in Halifax, Nova Scotia, the Company has 21 full-time and part-time employees and five part-time consultants. Being involved in a scientific and technical business, the Company requires staff with significant education, training and scientific knowledge that cannot be recruited or replaced easily. As a result, the Company recruits talented expertise locally, nationally and internationally. The business of the Company requires personnel with specialized skills and knowledge in the fields of basic and applied immunology, in chemistry, formulation research and analytical chemistry method development. The Company has trained scientists with broad experience in these fields including seven employees holding PhD degrees and seven holding MSc or MBA degrees. In addition to the core team, the Company has also assembled a Scientific Advisory Board (“SAB”) of experienced and internationally recognized scientific advisors to assist management in dealing with industry-related issues and how these issues may affect the Company’s scientific research and product development. The common shares of the Company are listed on the TSX Venture Exchange (“TSX-V”) under the symbol “IMV”.

## **BUSINESS STRATEGY**

### *Operating Strategy*

The DepoVax™ vaccine delivery platform drives the operating strategy for the Company. All of the Company's vaccines in human and animal health utilize this adjuvanting platform to improve their effectiveness against cancer, infectious diseases, drug addiction and to improve animal health.

The Company has two clinical-stage cancer vaccines: DPX-Survivac; and DPX-0907. Immunovaccine believes the principles behind a successful therapeutic cancer vaccine should include a targeted antigen and an effective adjuvanting vaccine delivery technology, combined with a complementary therapeutic strategy. Antigens used in both DPX-Survivac and DPX-0907 are believed to specifically target tumor cells without harming normal, healthy cells. These antigens are combined with the Company's DepoVax™ platform in an effort to optimize the presentation of these antigens in the body, potentially resulting in an enhanced immune response. To be successful against cancer, the vaccine must be administered in the right therapeutic setting, which the Company believes to be soon after a tumor has been identified and treated by surgery and/or chemotherapy. Immunovaccine also believes that the effect of the vaccine may be enhanced if an immune modulator is used simultaneously to prevent a patient's immune system from overriding the positive response to the vaccine.

Using the same DepoVax™-adjuvanting platform and working with partners in North America and Europe, the Company is also developing vaccines for infectious diseases, including a bio-defense vaccine that may protect against anthrax, a respiratory syncytial virus ("RSV") vaccine, an anti-cocaine vaccine and a malaria vaccine. Pre-clinical studies have indicated that the platform may allow the development of single-dose vaccines for a wide range of infectious diseases by generating a stronger immune response more quickly than is possible with existing delivery methods. The Company's goal is to advance at least one of these collaborations into human clinical trials in the next two years.

### *Financing and Partnering Strategy*

Immunovaccine relies on equity financing and non-dilutive private and public partnerships to fund its development programs. Applying this strategy, the Company has obtained more than \$10 million in government funding, including interest-free loans and government grants. Most recently, the Company closed a \$1.6 million equity private placement in March 2013.

While having used its own resources to bring its two cancer vaccines to human clinical trials, the Company is involved in various partnerships and collaborations to accelerate the development of additional DepoVax™-based products. Programs announced thus far include a research partnership with the NIH for vaccines against bio-terrorism threats, as well as collaborations with Weill Cornell Medical College to develop a vaccine designed to counteract cocaine addiction. The goal is to convert these types of partnerships into licensing agreements, either to allow the use of the Company's DepoVax™ platform by others or to acquire infectious diseases antigens for use in new vaccines using DepoVax™.

Immunovaccine has also developed relationships with two of the world's leading animal health companies, one of which is Zoetis, formerly the animal health division of Pfizer, which has licensed the Company's delivery technology platform to develop vaccines for livestock.

Immunovaccine has developed research partnerships with various government organizations, including the Department of Research and Development Canada, the NIH, National Cancer Institute (United States) and the Department of Defense in the US, which have funded pre-clinical collaborations. The Company provides its DepoVax™ technology and preliminary studies for these partnerships, but they are otherwise non-dilutive in financial terms.

The Company intends to be opportunistic in both the development of its products and enhancing shareholder value and is exploring a variety of possible avenues, including co-development through potential collaborations, strategic partnerships or other transactions with third parties, and merger and acquisitions opportunities. The Company

intends to seek additional equity and non-dilutive funding and partnerships to advance the development of the vaccine candidates.

## **PLATFORM AND PRODUCTS IN DEVELOPMENT**

### *DepoVax™ Vaccine Enhancement Platform*

DepoVax™ is a lipid depot-based vaccine delivery and enhancement platform that is easy to use, chemically stable, flexible, and forms the basis of Immunovaccine's therapeutic cancer and infectious diseases vaccine candidates.

The DepoVax™ platform is a combination of antigens, plus adjuvant (immune enhancers) formulated in liposomes and then suspended in oil. With the ability to retain the active components in the oil phase, the DepoVax™ platform creates a long-lasting "depot effect" that prolongs the exposure of vaccine ingredients to immune cells at the site of vaccination.

This unique formulation is also chemically stable. DepoVax™-based products are lyophilized and stored in a dry format, which provides the added benefit of an extended shelf life. The DepoVax™ formulation is easy to re-suspend and administer.

One of the significant advantages of the DepoVax™ platform is its versatility. The DepoVax™ platform can be combined with a variety of antigens, including recombinant proteins, synthetic peptides and nucleic acids, viruses and a wide range of adjuvants, which provides the flexibility to develop many different vaccine products using a single platform.

DepoVax™-formulated vaccines have the ability to induce rapid and robust immune responses that are believed to protect against disease agents with as little as one dose. The potential single-dose capability is a key factor for developing rapid response vaccines for pandemics and disease outbreaks.

The ability of DepoVax™ to induce robust cellular immune responses makes the platform uniquely suitable for therapeutic cancer vaccines. The vaccines are designed to specifically target tumor cells and to help patients remain in remission and combat the dissemination of micro-metastases. DepoVax™ can induce antigen-specific "poly-functional" cellular responses, which are postulated to be required for effective tumor control.

### *DPX-0907*

DPX-0907 combines the Company's DepoVax™ delivery technology with seven HLA-A2-restricted cancer-specific antigens licensed from Immunotope. The vaccine is designed to stimulate an immune response specific to cancer antigens that are believed to be involved in critical tumor cell processes. The seven peptide antigens in DPX-0907 are believed to be present on the surface of breast, ovarian and prostate cancer cells. In pre-clinical studies, the seven antigens could not be found on the surface of normal cells, and therefore, DPX-0907 is expected to kill tumor cells without harming normal, healthy cells.

The Company has completed a Phase I clinical trial of DPX-0907 and the results of the trial were released in June 2011, with more detailed results published in the Journal of Translational Medicine in August 2012. The Phase I trial was conducted at five centers in the US. In this open-label, dose-escalating trial, patients received three injections (0.25 mL or 1 mL doses) of the active immune therapy DPX-0907, three weeks apart.

The Phase I trial met the primary objective of safety with overall results demonstrating that DPX-0907 is generally well-tolerated by all patients and is considered safe at both dose levels. There were no vaccine-related serious adverse events reported. Final safety was assessed in 11 patients in the 0.25 mL dose group and 11 patients in the 1.0 mL dose group.

The secondary objective of the trial was to assess whether administration of DPX-0907 could generate an immune response specific to the seven cancer antigens. DPX-0907 is designed to train the body's T cells, sophisticated white blood cells that play a key role in fighting cancer, to recognize the antigens incorporated into the vaccine. In this clinical trial, 61% of all patients, and 89% of patients with breast or ovarian cancer, generated measurable T cell

responses to antigens contained in DPX-0907. In addition, 73% of patients in this study who generated a good immune response did so following the first vaccination and 64% maintained a persistent response at one month following a third vaccination. The immunogenicity results were based on an analysis of nine evaluable patients in the 0.25 mL dose group and nine evaluable patients in the 1.0 mL dose group.

This study also demonstrated a key association between the achievement of immune responses during the study and the patients' level of disease. The breast and ovarian cancer patients who responded well to prior therapies responded favorably, with the majority of these patients (8 out of 9) producing the desired immunity. In contrast, the majority of prostate cancer patients who had more advanced disease and were less responsive to prior therapies exhibited a lower immune response rate.

The Company recently signed an Investigator-Initiated Study Agreement for the ongoing evaluation of its DPX-0907 cancer vaccine at the Busto Arsizio Hospital in Italy. Marco Bregni, M.D., head of the Oncology Unit of the Hospital of Busto Arsizio, will serve as the principal investigator for the Phase I/II DPX-0907 clinical trial in patients with breast and ovarian cancer. Immunovaccine expects the Phase I/II study to be initiated during the fourth quarter of 2013.

The Company is also exploring other opportunities for commercialization of DPX-0907 and is considering investigator funded trials, as it recently announced, or partnership opportunities at various stages of clinical development, including at the Phase I and Phase II clinical trial stages.

#### *DPX-Survivac*

DPX-Survivac uses survivin-based antigens licensed from Merck KGaA, on a world-wide exclusive basis, and formulated in the DepoVax™ vaccine delivery platform. Survivin is a major tumor-associated antigen over-expressed in several cancers including ovarian cancer cells, making it a viable target for immunotherapy. DepoVax™ will deliver the survivin-based antigens in a lipid depot-based format designed to generate a strong and prolonged immune response.

Survivin is essential for the survival of cancer cells and is an inhibitor of cancer cell death, known as apoptosis. The presence of survivin in cancer cells makes them susceptible to a survivin-specific vaccine. The Company's survivin-based vaccine candidate, DPX-Survivac, aims to train the immune system to recognize and kill survivin-containing cancer cells, with the intent to provide a clinical benefit to patients in the form of delaying cancer progression and/or increasing overall survival. The National Cancer Institute has recognized survivin as a promising antigen for cancer treatment based on its specificity, over-expression in cancer cells and immunogenicity potential.

The Company believes DPX-Survivac could have broad commercial potential as a therapeutic cancer vaccine because it may be applicable for the treatment of multiple solid tumors and hematological cancers, including ovarian, prostate, breast, pancreatic, multiple myeloma, B-cell lymphoma, glioblastoma and melanoma. The Company intends to proceed with pre-clinical testing of DPX-Survivac in a broader range of cancer indications to evaluate additional opportunities.

Immunovaccine initiated the Phase I clinical trial of DPX-Survivac and vaccinated the first patient in December 2011. The Phase I clinical trial is being conducted at six clinical sites in the US and Canada, as the Company has received clearance for both Phase I and Phase II clinical trials by both the US Food and Drug Administration ("FDA") and Health Canada. The existing clinical data generated by Immunovaccine for DPX-0907, and by Merck KGaA on survivin antigens, facilitated the approval of a combined Phase I and Phase II protocol for testing DPX-Survivac in patients with advanced ovarian cancer. The Phase I trial is an open-label clinical trial designed to evaluate sequentially the safety of two DPX-Survivac dosing regimens in 18 patients. The goal of the Phase I clinical trial is to establish the safety and immunogenicity of DPX-Survivac in patients with advanced ovarian cancer.

The Company released interim results in October 2012 and further detailed positive results in January 2013 on the Phase I clinical trial. The analysis, which now includes all 18 patients enrolled in the study, confirmed previously reported results and uncovered new findings. All ten patients receiving the DPX-Survivac combination therapy, who were evaluable by tetramer staining, produced survivin-specific CD8 T cells following one or two vaccinations.



Importantly the CD8 responses were maintained with booster vaccinations. The activation and maintenance of these specific immune cells is of particular interest in immunotherapy since CD8 T cells are implicated in identifying cancer cells, infiltrating tumors and killing cancer targets.

All 12 patients receiving the DPX-Survivac combination therapy demonstrated antigen-specific immune responses as measured by at least one of the study's three immune monitoring assays (ELISpot, tetramer analysis and multiparametric intracellular cell staining). In 11 of 12 patients, the immune responses were confirmed by two assays (five patients) or three assays (six patients) performed. These immune responses were established with one or two vaccinations and further increased or maintained with follow-up booster vaccinations. Analysis of immune responses by ELISpot showed that a cohort of patients receiving the higher dose of the vaccine therapy produced an average stimulation factor of greater than 600 times (600x) over baseline following their third vaccination. For one of these patients, the stimulation factor reached greater than 1,200 times (1,200x) over baseline. These immune responses are in agreement with the previously reported average increase of 350 times (350x) over baseline for these same patients following their second vaccination.

DPX-Survivac was deemed well-tolerated with no significant systemic adverse events reported in any patients recruited in this study. Reported adverse events were restricted to injection site reactions, which were experienced by the majority of patients after repeated vaccinations. Those patients presenting the strongest immune responses were more likely to exhibit more pronounced injection site reactions. There were no dose limiting toxicities experienced during the trial and no patient withdrew consent due to adverse events.

The Phase II clinical trial design cleared by the US FDA and Health Canada is a randomized, placebo-controlled, double-blinded trial enrolling approximately 250 patients. The vaccine will be administered to patients who will also receive an immune modulating drug to enhance the effect of the vaccine on cancer cells. Endpoints for the Phase II trial include primarily progression-free survival and CA-125 biomarker analysis.

Various financing options that may include dilutive and non-dilutive sources to support this Phase II trial are under consideration by the Company.

### *Infectious Diseases*

A significant component of the Company's business strategy is leveraging the DepoVax™ platform within infectious and other diseases. The DepoVax™-adjuvanting platform has the potential to generate a rapid and robust immune response, often in a single dose. The unique vaccine enhancement and single-dose capability could prove to be beneficial in targeting difficult infectious and other disease candidates. Immunovaccine has conducted multiple proof of concept studies for DepoVax™ platform-based infectious diseases vaccines, including pandemic influenza, anthrax, pertussis, and hepatitis B vaccines.

The Company is performing pre-clinical research activities for a vaccine targeting respiratory syncytial virus ("RSV"), which is the second leading cause of respiratory illness in infants, the elderly and the immunosuppressed. Currently, there is no vaccine available for this virus and Immunovaccine is seeking to develop a novel vaccine formulation to be used in the elderly and healthy adults, including women of child-bearing age. The novel RSV antigen being evaluated in DepoVax™ is based on the short hydrophobic protein present on the surface of the RSV virion. This vaccine has a unique mechanism of action, in that the resultant antibodies bind to and destroy infected cells rather than directly bind and neutralize free virus. The Company is currently testing the immunogenicity and efficacy in appropriate RSV challenge models such as mice and the cotton rat. The goal is to produce the pre-clinical data required to support a future potential IND filing leading to a Phase I clinical trial in the US and/or Canada.

The Company is evaluating the pre-clinical efficacy of DPX-CSP, a vaccine that combines DepoVax™ with CSP, or circumsporozoite protein, which targets the form of the malaria parasite which initially infects humans via insect bite. There is currently an unmet need for an effective vaccine in the developing world, and for travelers to endemic areas. The CSP antigen has been shown by others in Phase III clinical trials to provide partial protection against malaria. Recent evidence suggests that an anti-malaria response may be mediated by both antibody-based and cellular immune responses. The Company is evaluating the ability of the vaccine to induce the required immune responses to provide the necessary protection. The potential efficacy of the vaccine will be tested in mouse challenge models by evaluating parasite load in the liver of vaccinated animals following exposure to parasites. The

goal of these studies is to produce the pre-clinical data required to support a future potential IND filing leading to a Phase I clinical trial in the US.

Immunovaccine is pursuing research collaborations involving these programs, as well as several other infectious diseases vaccine programs for internal development and partnerships.

#### *Bio-terrorism*

The Company entered into a research collaboration to advance the development of next generation bio-defense vaccines against various biological agents. These novel vaccine candidates are being evaluated as part of a study funded by the NIH that was initiated in the first quarter of 2012.

The Corporation announced positive results from this immunogenicity study in January 2013. Study findings suggested that the DepoVax™-based vaccines provided a more rapid and long lasting immune response as compared to the licensed anthrax vaccine BioThrax™. The study, which was conducted under the National Institute of Allergy and Infectious Diseases' (NIAID) Preclinical Services Program, was designed to test multiple DepoVax™-formulated anthrax vaccines in non-human primates, specifically examining immunogenicity and safety after either one or two doses of the vaccine. Study investigators compared the DepoVax™-based vaccines to BioThrax™, the only commercially available anthrax vaccine. BioThrax™ requires at least two doses to produce immune responses in animal models.

Preliminary study findings include:

- A single dose of DepoVax™-formulated anthrax vaccine produced sustained TNA (toxin-neutralizing antibody) titers detected in six of ten animals starting between day 21 and 49. Animals receiving one dose of Biothrax had no detectable TNA titers.
- When a second dose of the DepoVax™-formulated vaccine was delivered, there was a significant increase in anthrax TNAs in all immunized animals within one week of the booster administration.
- Vaccination with the DepoVax™-formulated vaccines resulted in no visible injection site reactions. Detailed microscopic examination showed robust immune cell infiltration to the site of vaccination. There was no evidence of systemic or local safety issues.

More studies with NIAID Preclinical Services began in the first quarter of 2013. These will examine the ability of neutralizing antibody responses induced by a DepoVax™-based vaccine to protect animals from challenge with anthrax.

The positive results from this immunogenicity study are consistent with previous research conducted by Immunovaccine that demonstrated a DepoVax™-based vaccine was able to raise higher antibody levels, as compared to two doses of alum-adjuvanted control vaccines. The persisting high antibody levels were induced within four weeks following a single dose of anthrax antigen formulated within DepoVax™.

Data generated from these research studies is expected to facilitate access to various funding mechanisms and support the clinical development of DepoVax™-based vaccine candidates.

#### *Other Conditions*

In the first quarter of 2012, the Company signed a research agreement with Weill Cornell Medical College to advance a vaccine for treating cocaine addiction. Immunovaccine announced positive results from this preliminary study, which added the Company's DepoVax™-adjuvanting technology to Weill Cornell's novel anti-cocaine vaccine (dAd5GNE).

The study showed that the DepoVax™-enhanced vaccine produced high levels of target antibodies that were able to sequester cocaine in the blood of immunized mice and block its delivery to the brain. Immunovaccine hopes to build on this interesting proof of concept work and is currently evaluating opportunities to further develop the

program. Immunovaccine is currently exploring opportunities to pursue further studies that would aim to confirm these results and explore the duration of immunity produced by the vaccine.

### *Animal Health*

While the Company's main focus is now on the human health market and activities, the animal health market is still an important part of the Company's strategy. In 2008, the Company signed a license agreement with Zoetis, formerly the animal health division of Pfizer, which represented the Company's first milestone in validating the DepoVax™ platform technology. The Company has multiple licensing agreements with Zoetis for the use of the Company's delivery technology in cattle and other livestock vaccine applications. These license agreements include upfront signing fees, milestone payments and royalties from future vaccine sales.

The Company is also collaborating with one of the world's leading animal health companies to develop next generation companion animal vaccines. Immunovaccine intends to pursue additional licensing and revenue opportunities within the animal health market to help fund the research and development of its human health vaccine candidates.

## **MARKET OVERVIEW**

The Company believes that the market outlook for the Company's products and platform technology remains positive, backed by the growing public awareness of new, safer and more effective vaccines, and the adoption of novel vaccine delivery mechanisms. Vaccines are one of the fastest growing segments of the pharmaceutical industry. According to industry sources, global revenues are expected to rise to USD\$46.5 billion by 2014. The Company believes that the development of new infectious diseases vaccines along with therapeutic cancer vaccines will drive the growth of this industry in the next 25 years.

Currently, there are five manufacturers that dominate revenue generation in the human vaccine market; Merck & Co., GlaxoSmithKline ("GSK"), Novartis, Sanofi Pasteur ("Sanofi"), and Pfizer. Vaccines continue to be one of the brighter spots for pharmaceutical companies in the current market, and according to Kalorama Information, revenues for vaccine products are expected to continue their double-digit growth in the future. Driving that growth is an increasing acceptance of adult vaccines and the public health focus on flu prevention, as well as introductions of new vaccines. All of these companies have seen growth in their vaccine business. Most companies have increased their R&D programs in this area in recent years.

Furthermore, the Company believes that advances in biotechnology may prevent vaccines from being easily replaced by generic substitutes potentially facilitating a long-term income stream. Governments and healthcare providers also positively view vaccines because of their potential to reduce hospital stays and drug costs. New technologies, such as the enhanced vaccine delivery platform being developed by the Company, are enabling the development of targeted vaccines not previously possible. These new vaccine products are being priced at a premium to reflect the value of the technology. Promising developments in new vaccines and the way they are produced and delivered should make for a robust market opportunity in years to come.

### *Therapeutic cancer vaccines*

Cancer is considered one of the most widespread and prevalent diseases globally. According to the US Centers for Disease Control and Prevention ("CDC"), 12.7 million individuals become victims of cancer and 7.6 million individuals die from the disease annually.

Interest in immunotherapy and cancer vaccines has been rising as researchers are learning more about cancer and its interactions with the immune system. A better understanding of the immunology of cancer has led to novel strategies for vaccine development in the past several years. The approval by the US FDA of Dendreon's Provenge® for prostate cancer and Bristol-Meyers Squibb's Yervoy™ (ipilimumab) for melanoma has resulted in increased attention and support for immunotherapy and cancer vaccine companies over the past two years.

The global market for cancer vaccines, including both prophylactic and therapeutic vaccines, was USD\$1.6 billion in 2010. While the majority of this is based on sales of prophylactic vaccines, the area of therapeutic cancer vaccines

is expected to experience high growth, reaching USD\$4.8 billion by 2018. Several first-in-class therapeutic cancer vaccines are expected to be introduced during this time, driving this anticipated growth rate. Major pharmaceutical players, such as GSK and Amgen, have products currently advancing in Phase III clinical trials.

Independent sources note a high unmet medical need in the treatment of cancer. Despite recent advances in cancer therapy, the median survival rate remains poor. Vaccines for cancer treatment may potentially provide a new and effective treatment option without the toxicity issues of existing therapies.

Conventional cancer treatment involves surgery to remove the tumor, followed by chemotherapy. Chemotherapy interferes with the ability of cancer cells to grow and spread, but these drugs can only delay the cancer's recurrence as most tumors eventually develop resistance to the treatment. Chemotherapy also kills normal cells, resulting in multiple negative side effects.

Because patients need treatments with a better safety profile, the Company believes that the next generation of therapeutic cancer vaccines is a more attractive approach. The vaccine is administered after surgery and chemotherapy, when tumor burden is low. The goal is to have the cancer vaccine train the body's immune system to target and kill remaining cancer cells and maintain remission for the patient.

Cancer vaccines can be a possible combination partner with chemotherapy, radiation or surgery. Thus, cancer vaccines are believed to hold great promise in the future as a potential for combination treatment options. The Company believes that, over the next five years, cancer vaccines will become part of a multi-targeted approach for the treatment of cancer.

### *Infectious Diseases*

Globally, infectious diseases have witnessed robust growth in recent years. During the past decade, diseases thought to be under control or retreating, such as plague, diphtheria, yellow fever, dengue, meningitis, influenza and malaria, have re-emerged. While the effort to control these known infectious diseases continues, more than 30 emerging diseases have been identified in humans for the first time over the past two decades.

The global market for infectious diseases treatment was valued at USD\$90.4 billion in 2009. This market is expected to increase 8.8% (CAGR) to reach USD\$138 billion in 2014. Viral disease treatments will have the fastest growth rate of 12.1% (CAGR), increasing from nearly USD\$45 billion in 2009 to USD\$79 billion in 2014.

With up to 17 million deaths each year, there is an increased awareness of the impact of current and emerging infectious diseases. Demand for newer treatments and vaccines is growing globally. Decision Resources reports that the world-wide market for vaccines against infectious diseases more than doubled between 2005 and 2011.

Many infectious diseases lack effective prophylactic vaccines, and the industry faces a variety of challenges in vaccine design and production. Adjuvants and delivery methods are viewed as key technologies for the success of future vaccines. Efforts to decrease treatment duration and develop single-dose vaccines are a strong focus at the research level to improve patient compliance and decrease monitoring of therapy by the healthcare provider. The Company believes this current market landscape offers significant commercial opportunities for both its technology platform and vaccines.

Better diagnostics are being sought for many infectious diseases. This advance could result in additional market expansion by increasing the number of patients identified for vaccine treatment. Finally, further growth of the influenza vaccines market could be driven by the implementation of a universal immunization program recommended by the US Advisory Committee on Immunization Practices to further increase the flu vaccination coverage.

Pharmaceutical companies dominating this market include Bristol-Myers Squibb, GlaxoSmithKline, Johnson & Johnson, Merck & Co. and Roche. Additionally, government and non-profit institutions play a significant role in vaccine development in both industrialized and developing markets. Support for infectious diseases vaccine development and commercialization is available to companies through government and non-profit funding and granting mechanisms.

### *Respiratory Syncytial Virus (“RSV”)*

RSV is a respiratory virus that infects the lungs and breathing passages. It can be severe in infants, the elderly, and patients with compromised immune systems. RSV is the single most common cause of severe respiratory illness in infants under the age of one and is more often being recognized as an important cause of respiratory illness in older adults. Globally, it is estimated that 64 million cases of RSV infection occur annually, with 160,000 deaths. In North America RSV is the most frequent cause of hospitalization in the first two years of life. Specifically in Canada, RSV-associated lower respiratory tract illness (LRTI) in young children accounts for over 12,000 hospitalizations annually in up to 2% of the birth cohort. In Canadian adults, 2 to 3% of all respiratory admissions annually can be attributed to RSV infection.

There is currently no vaccine available for the prevention of RSV. The only product available today to help protect from severe RSV disease is Synagis, a monthly injection given during peak RSV season and indicated only for specific groups of infants at high risk. No cost-effective, feasible, effective treatment has been found which alters the natural history of RSV infection. Systematic meta-analyses of inhaled bronchodilators, glucocorticoids, antibiotics, inhaled heliox, nebulized deoxyribonuclease and epinephrine do not demonstrate any significant clinical benefit. The mainstay of care for most patients remains supportive.

### *Bio-defense*

According to the US Center for Bio-security’s review of the US government’s federal budget for fiscal 2012, funds for civilian bio-defense total USD\$6.42 billion. Of that total, USD\$5.78 billion (90%) is budgeted for programs that have both bio-defense and non bio-defense goals and applications, and USD\$637.6 million (10%) is budgeted for programs that have objectives solely related to bio-defense.

US government-funding programs for civilian bio-defense are intended to address a range of scientific, public health, healthcare, national security, and international security issues in addition to bio-defense. Programs with both bio-defense and non bio-defense goals and applications include those that fund basic scientific research in infectious diseases pathogenesis and immunology, programs to improve planning and operations related to public health preparedness, and programs to improve preparedness and response for a range of other disasters.

An example of programs with both bio-defense and non bio-defense goals includes NIAID Bio-defense Research Program, which, in addition to funding pre-clinical and clinical research toward bio-defense countermeasures, funds basic infectious diseases pathogenesis and immunology research with implications for a multitude of other diseases. Immunovaccine’s platform technology and products have application to many of these programs.

### *Animal Health Market*

According to industry sources, the world animal health market, defined as a sector spanning veterinary pharmaceuticals, biologics and medicated feed additives, was approximately USD\$20 billion in 2008. The animal vaccine market subdivided into livestock, companion animal and other smaller segments including equine, poultry and aquatic, makes up approximately 20% of the total animal health market and is projected to reach USD\$5.6 billion by 2015. Europe is the leading market for veterinary vaccines followed closely by North America. Asia-Pacific is the fastest growing market for veterinary vaccines.

The world-wide livestock vaccine market is comprised primarily of cattle and swine vaccines, along with, to a lesser extent, vaccines for sheep, poultry and other food animals. Of this market, industry sources suggest the world-wide livestock vaccine market is estimated to be approximately USD\$3.6 billion by 2015, with the cattle vaccine market representing approximately USD\$1.0 billion of the livestock vaccines. The companion animal vaccine market represents USD\$2.0 billion of the market. There are only a few players in the animal vaccine market including Zoetis, Boehringer Ingelheim, Merial, Merck Animal Health, Novartis and AgriLabs. While the livestock vaccine market is based on high volumes and lower pricing, the companion animal market is less sensitive to price and is focused on safety of the products. The majority of today’s vaccines for both market segments require a booster administration, which increases the handling costs for the livestock market and has the potential to decrease safety in the companion animal market. Therefore, a vaccine that requires fewer doses (one dose, in some cases) for efficacy could be a significant innovation and have the potential to replace existing products in both segments.

There is a growing global demand for premium companion animal vaccines that can be safely and easily administered. According to a Global Industry Analysts' report, the veterinary vaccine market is projected to reach USD\$5.6 billion by 2015. Growth in this market is driven by an increasing number of pet owners demanding products that enhance the health and well-being of their pets.

## RECENT AND ANNUAL DEVELOPMENTS

### *Key developments and achievements*

- On April 16, 2013, the National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) entered into an agreement to provide a financial contribution of up to \$407,700 to Immunovaccine Inc. for development of a vaccine for respiratory syncytial virus (RSV), a common lung disease in children, the elderly and patients with a compromised immune system. The funding will be used to advance Immunovaccine's RSV program, including the formulation of RSV antigens in IMV's patented DepoVax™ vaccine adjuvanting technology. Extensive preclinical research has demonstrated the ability of DepoVax™ to generate rapid and robust immune responses required for protection against infectious diseases.
- On March 5, 2013, the Company closed the previously announced non-brokered private placement of its securities, raising gross proceeds of \$1,603,880 in March 2013. Under terms of the financing, a total of 4,860,244 common shares (the "Common Shares") of Immunovaccine were sold at a price of \$0.33 per Common Share. Net proceeds from the financing will be used to fund preclinical research and development efforts in the areas of infectious diseases, including respiratory syncytial virus ("RSV"), malaria and anthrax. These ongoing efforts will support Immunovaccine's Phase I clinical trials for these infectious diseases programs. The proceeds will also support preparatory work to advance IMV's clinical stage oncology program, DPX-Survivac, into Phase II development, as well as ongoing efforts to establish alliances, collaborations and strategic transactions with parties including government entities, academic medical centers and other companies in order to secure additional financing to advance its current clinical programs and to expand its pipeline of strategic assets. In connection with the private placement, Immunovaccine paid a finder's fee of 4% of a portion of the gross proceeds. The total amount of the finder's fee was \$15,708, paid through the issuance of Common Shares at a deemed price of \$0.33 per Common Share. The Common Shares issued in connection with the non-brokered private placement (including the Common Shares issued in payment of the finder's fee) may not be traded until July 6, 2013.
- On January 30, 2013, the Company announced the signing of an Investigator-Initiated Study Agreement for the ongoing evaluation of its DPX-0907 cancer vaccine at the Busto Arsizio Hospital in Italy. Marco Bregni, M.D., head of the Oncology Unit of the Hospital of Busto Arsizio, will serve as the principal investigator for the Phase I/II DPX-0907 clinical trial in patients with breast and ovarian cancer. Immunovaccine expects the Phase I/II study to be initiated during the fourth quarter of 2013.
- On January 7, 2013, the Company announced further detailed positive results from a Phase I clinical study of the Company's cancer vaccine, DPX-Survivac, for the treatment of ovarian cancer. The analysis, which now includes all 18 patients enrolled in the study, confirmed previously reported results and uncovered new findings.
- On January 3, 2013, the Company announced positive results from an immunogenicity study that evaluated anthrax vaccines formulated in the Company's DepoVax™ platform. This study is part of an ongoing bio-defense research program which was initiated in February 2012 to utilize Immunovaccine's DepoVax™ adjuvanting technology in advancing the development of next generation vaccines against the most threatening biological agents. Study findings suggested that the DepoVax-based vaccines provided a more rapid and long lasting immune response as compared to the licensed anthrax vaccine BioThrax™. The study, which was conducted under the National Institute of Allergy and Infectious Diseases' (NIAID) Preclinical Services Program, was designed to test multiple DepoVax-formulated anthrax vaccines in non-human primates, specifically examining immunogenicity and safety after either one or two doses of the vaccine. Study investigators compared the DepoVax-based vaccines to BioThrax, the only commercially

available anthrax vaccine. BioThrax requires at least two doses to produce immune responses in animal models.

## SUMMARY OF QUARTERLY RESULTS

The following consolidated quarterly data was drawn from the audited annual consolidated financial statements and the unaudited interim condensed consolidated financial statements. All values discussed below are rounded to the nearest thousand. The information is reported on an IFRS basis.

Quarter Ended In	Total Revenue \$	Total Expenses \$	Loss \$	Basic and Diluted Loss Per Share \$
Q1 - March 31, 2013	-	1,585,000	(1,585,000)	(0.02)
Q4 - December 31, 2012	-	1,712,000	(1,712,000)	(0.03)
Q3 - September 30, 2012	-	1,728,000	(1,701,000)	(0.03)
Q2 - June 30, 2012	-	1,583,000	(1,583,000)	(0.02)
Q1 - March 31, 2012	-	1,404,000	(1,404,000)	(0.03)
Q4 - December 31, 2011	-	1,387,000	(1,387,000)	(0.03)
Q3 - September 30, 2011	-	1,497,000	(1,497,000)	(0.03)
Q2 - June 30, 2011	-	2,044,000	(2,044,000)	(0.04)

**Results for the three months ended March 31, 2013 (“Q1 Fiscal 2013”), compared to the three months ended March 31, 2012 (“Q1 Fiscal 2012”).**

### Net loss and comprehensive loss

The net loss and comprehensive loss of \$1,585,000 for Q1 Fiscal 2013 was \$181,000 higher than the net loss and comprehensive loss for Q1 Fiscal 2012. This relates mainly to the \$181,000 increase in research and development costs and a \$47,000 increase in general and administrative expenses, offset by a decrease of \$23,000 in business development expenses and a decrease of \$25,000 in accreted interest.

### Operating expenses

Overall operating expenses increased by \$181,000 (13%) during Q1 Fiscal 2013 compared to Q1 Fiscal 2012. Explanations of the nature of costs incurred, along with explanations of changes in those costs are discussed below.

#### *Research and development expenses (“R&D”)*

R&D expenses include salaries and benefits, expenses associated with the Phase I clinical trial of DPX-Survivac, consulting fees paid to various independent contractors who possess specific expertise required by the Company, the cost of animal care facilities, lab supplies, peptides and other chemicals, rental of lab facilities, insurance, as well as other minor R&D related expenses. These R&D costs are offset by government loans and assistance and by investment tax credits received in relation to the R&D expenses incurred.

The majority of the Company’s R&D efforts and related expenses for Q1 Fiscal 2013 were costs surrounding the Company’s Phase I clinical trial of DPX-Survivac. The remaining R&D costs related to the Company’s ongoing R&D activities associated with the investigation, analysis and evaluation of other potential vaccine candidates and technologies.

Research and development expenses consist of the following:

	Q1 Fiscal 2013	Q1 Fiscal 2012
	\$	\$
General research and development expenses	281,000	303,000
DPX-0907 clinical expenses	-	6,000
DPX-Survivac preclinical and clinical expenses	483,000	593,000
Stock-based compensation	48,000	24,000
Depreciation of equipment and amortization of intangible	27,000	30,000
Government loans and assistance	(41,000)	(349,000)
Investment tax credits	(70,000)	(60,000)
<b>Total</b>	<b>728,000</b>	<b>547,000</b>

The largest component of R&D expense for Q1 Fiscal 2013 was \$483,000 in Phase I clinical trial expenditures on DPX-Survivac, which was a decrease of \$110,000, compared to Q1 Fiscal 2012. The government loans and assistance recorded in Q1 Fiscal 2013 consists mainly of non-repayable government grants, in comparison to amounts recorded in Q1 Fiscal 2012 which consisted mainly of the revaluation of the interest-free government loans. Under IFRS, the interest-free repayable government loans must be initially valued at fair value and the difference between the fair value of the loans and the contribution received must be treated as government assistance.

*General and administrative expenses (“G&A”)*

G&A expenses of \$614,000 represented 39% of total expenses for Q1 Fiscal 2013 compared to \$567,000 (40% of total expenses) for Q1 Fiscal 2012, an overall increase of \$47,000 (8%).

G&A expenses include salaries and benefits, directors’ fees, legal fees, audit and taxation cost, consulting fees, travel, rental of office facilities, insurance, regulatory fees, stock-based compensation, depreciation of equipment and other minor office expenses.

General and administrative expenses consist of the following:

	Q1 Fiscal 2013	Q1 Fiscal 2012
	\$	\$
General and administrative expenses excluding salaries	424,000	178,000
Salaries and benefits	175,000	244,000
Stock-based compensation	13,000	143,000
Depreciation of equipment	2,000	2,000
<b>Total</b>	<b>614,000</b>	<b>567,000</b>

G&A expenses excluding salaries increased by \$246,000 due mainly to the costs surrounding the cancelled public offering, including an increase in legal expenses of \$113,000, an increase in audit fees of \$45,000 and an increase in regulatory fees of \$8,000. The increase in G&A expenses excluding salaries also relates to an increase in consulting fees of \$50,000, an increase in directors’ fees of \$9,000 and a decrease in interest income of \$6,000, as well as other minor fluctuations in travel, foreign exchange and office expenses. The increase is offset by a decrease in salary and benefits expense of \$69,000 and a \$130,000 decrease in stock-based compensation.

*Business development expenses (“BD”)*

The Company continued to execute its business development and investor relations activities in Q1 Fiscal 2013. Total business development expenses of \$221,000 in Q1 Fiscal 2013 represented a decrease of \$24,000 compared to Q1 Fiscal 2012.



## CASH FLOWS, LIQUIDITY AND CAPITAL RESOURCES

At March 31, 2013, the Company had cash and cash equivalents of \$2,475,000 and working capital of \$2,142,000, as compared to \$2,002,000 and \$2,064,000, respectively at December 31, 2012.

Since the Company's inception, the Company's operations have been financed through the sale of shares, debt, revenue from animal health licenses, interest income on funds available for investment, and government assistance and tax credits.

During the three months ended March 31, 2013, cash of \$1,070,000 was used in operating activities. This included the reported net loss of \$1,585,000 prior to being decreased for non-cash amortization, non-cash depreciation, non-cash accretion of long-term debt, and non-cash stock-based compensation. The Company had a net source of cash of \$402,000 as a result of non-cash changes in working capital balances.

Sources of cash raised through financing activities were \$1,604,000 in a private placement, less share issuance costs of \$35,000, as described below. Use of cash through financing activities was \$23,000 in repayment of long-term debt.

During the three months ended March 31, 2013, the Company purchased \$3,000 worth of equipment for ongoing research and operating activities.

On March 5, 2013, the Company completed another private placement of 4,860,244 shares at a price of \$0.33 per common share for aggregate gross proceeds of \$1,603,880. Total costs associated with the offering were \$50,881, including a finder's fee of 4% of a portion of the gross proceeds, totalling \$15,708, which was paid through the issuance of 47,600 common shares at a deemed price of \$0.33 per common share. The remaining costs were associated with professional fees and regulatory fees.

The Company aims to maintain adequate cash and cash resources to support the planned activities which include the DPX-Survivac clinical trial program, other research and development activities, business development efforts, administration costs and intellectual property maintenance and expansion. At March 31, 2013, the Company had approximately \$3.2 million of existing and identified potential sources of cash including:

- cash and equivalents of \$2.5 million; and
- amounts receivable and investment tax credits receivable of \$0.7 million.

For the three months ended March 31, 2013, the Company's quarterly "cash burn rate" (defined as net loss for the period adjusted for non-cash transactions including amortization, depreciation, accretion of long-term debt, and stock-based compensation) was approximately \$1.5 million. The Company forecasts the cash burn rate to be between \$1.0 million to \$1.4 million per quarter over the next twelve months. Despite the net losses the Company has experienced in the past two years, the Company is forecasting management of a lower cash burn rate for the next twelve months, as it concludes the Phase I clinical trial for DPX-Survivac.

It is common for early-stage biotechnology companies to require additional funding to further develop product-candidates until successful commercialization of at least one product candidate. Immunovaccine's product candidates are still in the early-development stage of the product cycle and therefore are not generating revenue to fund operations. The Company continuously monitors its liquidity position, the status of its development programs, including those of its partners, cash forecasts for completing various stages of development, the potential to license or co-develop each vaccine-candidate and continues to actively pursue alternatives to raise capital, including the sale of its equity securities, debt and non-dilutive funding.

While the Company continues to execute its business strategy while maximizing the use of the existing resources, management believes that its cash and cash resources may not be sufficient to fund operations for the next twelve months unless significant reduction of Company's discretionary expenditures are made and further financing is obtained. The ability of the Company to continue as a going concern is dependent upon raising additional financing through equity and non-dilutive funding and partnerships. There can be no assurance that the Company will have sufficient capital to fund its ongoing operations, develop or commercialize any products without future financings. There can be no assurance, especially considering the current economic environment, that additional financing will

be available on acceptable terms or at all. The Company is currently pursuing financing alternatives that may include equity, debt, and non-dilutive financing alternatives including co-development through potential collaborations, strategic partnerships or other transactions with third parties, that may or may not include merger and acquisitions activities. If the Company is unable to obtain additional financing when required, the Company may have to substantially reduce or eliminate planned expenditures or the Company may be unable to continue operations. These material uncertainties cast significant doubt as to the ability of the Company's ability to meet its obligations as they come due and, accordingly, the appropriateness of the use of accounting principles applicable to a going concern.

## **RELATED PARTY TRANSACTIONS**

During the three months ended March 31, 2013, the Company had no transactions with related parties as defined in the CICA Handbook (IFRS), except those pertaining to transactions with key management personnel in the ordinary course of their employment or directorship arrangements.

## **DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

Disclosure controls and procedures ("DC&P") are intended to provide reasonable assurance that material information is gathered and reported to senior management to permit timely decisions regarding public disclosure. Internal controls over financial reporting ("ICFR") are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with Canadian generally accepted accounting principles.

"Venture Issuers" as defined in National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings ("NI 52-109") are not required to provide representations in their annual and interim filings relating to the establishment and maintenance of DC&P and ICFR, as defined in NI 52-109. In particular, the CEO and CFO certifying officers do not make any representations relating to the establishment and maintenance of (a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and (b) processes to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with the issuer's generally accepted accounting principles (IFRS).

## **SIGNIFICANT ESTIMATES**

The unaudited interim condensed consolidated financial statements as at March 31, 2013 have been prepared in accordance with IFRS. Significant accounting estimates used in preparing the unaudited interim condensed consolidated financial statements include the initial fair valuation of long-term debt, the calculation of the carrying amount of long-term debt, the scientific research and experimental development ("SRED") tax credits receivable, the fair value allocation of consideration for multiple element revenue arrangements, non-cash stock-based compensation expense, amortization and depreciation of intangibles and property and equipment, allocation of proceeds between common shares and warrants, and accrued liabilities.

Management has calculated the fair value of the interest-free government loans based on the forecast of the Company's future revenue, discounted at an appropriate discount rate. The estimates and assumptions used in the valuation model were based on current information available to management and a degree of management's judgment. A change in management's assumptions used to forecast future revenue or a change in the discount rate could have a significant impact on the fair value of these interest-free government loans. Management has estimated the SRED receivable based on its assessment of tax credits receivable on eligible expenditures incurred during the period and its experience with claims filed with and collected from the Canada Revenue Agency. Management has analyzed the amounts receivable listing for potentially uncollectible amounts and has allowed for all balances which collection is doubtful. Management has made estimates regarding when stock options might be exercised and stock price volatility in calculating non-cash stock based compensation. The timing for exercise of options is out of the Company's control and will depend on a variety of factors including the market value of the Company's shares and

the financial objectives of the stock-based instrument holders. Management has made estimates about the expected useful lives of long-lived assets, and the expected residual values of the assets. Management has determined the allocation of proceeds between common shares and warrants based on the relative values of the shares and warrants issued. Through knowledge of the Company's activities in the three months ended March 31, 2013, management has estimated the amount of accrued liabilities to be recorded.

## **OUTSTANDING SECURITIES**

The number of issued and outstanding common shares of the Company on March 31, 2013 is 68,412,996. The number of outstanding stock options on March 31, 2013 is 5,229,650. The outstanding stock options have a weighted average exercise price of \$0.60 per share and a weighted average remaining term of 3.21 years. The number of outstanding warrants on March 31, 2013 is 3,732,550. The outstanding warrants have an exercise price of \$1.00 per share and a remaining term of 0.46 years.

## **INTELLECTUAL PROPERTY RIGHTS**

The Company strives to protect its intellectual property in established, as well as emerging, markets around the world. The Company's intellectual property portfolio for its vaccine platform technology includes five patent families, the first of which contains five patents issued in four jurisdictions (US, Europe, Japan and Australia) and two pending patent applications in the US and Canada. The four other families collectively contain 33 pending patent applications in eleven jurisdictions. US Patent 6,793,923, issued in 2004, contains claims to the Company's platform, covering "any antigen, any adjuvant in any liposome and any oil". An additional patent application for a DepoVax formulation was submitted in 2012. The Company's platform name, DepoVax™, is protected by trademarks registered in the US, Canada and Europe.

Additional granted patents include:

- Europe patent 1,333,858, patent granted February 8, 2006;
- Japan patent 2002-540757, patent granted August 1, 2008;
- Australia patent, 202214861, patent granted January 11, 2007; and
- Australia Patent, 2006301891, Patent granted December 20, 2012.

Since 2008, Immunovaccine has filed three patent cooperation treaty (PCT) applications relating to the VacciMax® and DepoVax™ technologies, some or all of which have now been filed in the US, Europe, Japan, Canada, Australia, China, India, Brazil, Israel, Hong Kong and Singapore. These PCT applications cover specific DepoVax™ compositions with broad utility for infectious diseases and cancer applications. If allowed, these patent applications may extend patent protection for some or all DepoVax™-based vaccines approximately up to the year 2028.

The licensing agreement between the Company and Immunotope for the seven antigens included in the DPX-0907 vaccine candidate stipulates that the Company will assume the cost of prosecuting and maintaining patent applications and issued patents relating to the peptide antigens under license. These antigens are protected by two issued patents in the US and pending patent applications in the US and Europe. A European patent application was recently refused by the European Patent Office. An appeal is underway and the outcome for this particular application in Europe remains uncertain. Additional divisional applications have been filed in Europe. The DPX-0907 vaccine candidate remains protected by granted patents and patent applications (Canada, US, Europe, Japan, Australia, China, India, Brazil, Israel, Hong Kong and Singapore) relating to the core vaccine delivery platform, as well as US patents (7,083,789 and allowed application 11/426,16) and patent applications in the US and Europe relating to the seven peptide antigens.

## **FINANCIAL INSTRUMENTS**

Financial assets and liabilities are recognized when the Company becomes a party to the contractual provisions of the instrument. Financial assets are no longer recognized when the rights to receive cash flows from the assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership.

Financial assets and liabilities are offset and the net amount is reported in the statements of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

The Company recognizes financial instruments based on their classification. Depending on the financial instruments' classification, changes in subsequent measurements are recognized in net loss or other comprehensive loss.

The Company has implemented the following classifications:

- Cash and cash equivalents and amounts receivable are classified as loans and receivables. After their initial fair value measurement, they are measured at amortized cost using the effective interest method; and
- Accounts payable and accrued liabilities, amounts due to directors and long-term debt are classified as other financial liabilities. After their initial fair value measurement, they are measured at amortized cost using the effective interest method.

## **RISK ASSESSMENT**

The Company's activities are subject to certain risk factors and uncertainties that generally affect development-stage biotechnology companies. Management defines risk as the evaluation of the probability that an event might happen in the future that could negatively affect the financial condition, results of operation or perspectives of the Company. The success of the Company will depend, without limitation, on its ability to:

- obtain additional funding on reasonable terms when necessary;
- obtain sufficient funds or find an industry partner to complete clinical trials;
- obtain positive results of clinical trials;
- achieve development goals and meet set time frames;
- obtain regulatory approval of product pipeline;
- preserve its intellectual property rights;
- retain key personnel;
- establish or maintain strategic collaborations with third parties;
- manufacture product candidates in sufficient yields, at commercial scale and at economical market prices;
- respond effectively or in a timely manner to various competitive factors affecting its industry;
- respond to changes in technology and industry standards;
- obtain adequate insurance coverage;
- generate revenue and profits in the future;
- obtain market acceptance of its product;
- market products at acceptable prices to achieve profitability; and
- adapt to stress in the global economy, including current market conditions.

The risks identified above do not include all possible risks as there may be other risks of which management is currently unaware. The above risks and other general risks and uncertainties relating to the Company and its activities are more fully described in the Annual Information Form of the Company for the year ended December 31, 2012, under the heading "Risk Factors and Uncertainties".

## **OFF BALANCE SHEET ARRANGEMENTS**

The Company was not party to any off balance sheet arrangements as of March 31, 2013.