

REPLICEL LIFE SCIENCES INC.
(formerly Newcastle Resources Ltd.)

MANAGEMENT DISCUSSION AND ANALYSIS (“MD&A”)
FORM 51-102F1
For the year ended December 31, 2011

Dated as of April 24, 2012

The following management discussion and analysis of the financial position, results of operations and cash flows of RepliCel Life Sciences Inc. (formerly Newcastle Resources Ltd.) (“the Company”, “RepliCel” or “we”), for the year ended December 31, 2011 includes information up to and including April 24, 2012 and should be read in conjunction with the annual audited consolidated financial statements for the years ended December 31, 2011 and 2010.

The financial statements of the Company for the year-ended December 31, 2011 have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”). This is the first time that the Company has prepared its financial statements in accordance with IFRS, having previously prepared its financial statements in accordance with pre-changeover Canadian Generally Accepted Accounting Principles (“pre-changeover Canadian GAAP”). These are the Company’s first consolidated financial statements prepared in accordance with IFRSs and IFRS 1 First-time Adoption of International Financial Reporting Standards has been applied. An explanation of the impact of the transition to IFRS, including the nature and effect of significant changes in accounting policies from those used in the Company’s consolidated financial statements is included in Note 16.

All amounts included in the financial statements and MD&A are expressed in Canadian dollars unless otherwise indicated. The reader is encouraged to review the Company’s statutory filings on the SEDAR website at www.sedar.com.

Cautionary Statement Regarding Forward-Looking Statements

Certain statements contained in this MD&A constitute “forward-looking statements”. Such forward-looking statements involve a number of known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date the statements were made, and readers are advised to consider such forward-looking statements in light of the various risks and uncertainties set forth in this MD&A. The Company does not undertake to update any forward-looking statement that may be made from time to time by the Company or on its behalf, except in accordance with applicable securities laws.

OVERVIEW

Nature and History of Operations

The Company was incorporated under the Ontario Business Corporations Act on April 24, 1967. We are a reporting issuer under the securities laws of the Provinces of British Columbia and Ontario. We are a foreign private issuer in the United States. On June 22, 2011, Newcastle Resources changed its name to RepliCel Life Sciences Inc. (“the Company” or “RepliCel”) and its reporting jurisdiction to British Columbia. Its common shares (the “Common Shares”) are listed for trading in the United States on the OTC Bulletin Board, trading under the symbol REPCF.

Overall Performance

The Company has developed RepliCel™, a natural hair cell replication technology that has the potential to become the world's first, minimally invasive solution for androgenetic alopecia (pattern baldness) and general hair loss in men and women. RepliCel™ is based on autologous cell implantation technology that replicates a patient's hair cells from their own healthy hair follicles and, when reintroduced into areas of hair loss, the Company hopes to initiate natural hair regeneration. Patents for the technology have been issued by the European Union and Australia and are pending in other major international jurisdictions. The RepliCel™ procedure has been developed over the past nine years by the Company's recognized research scientists and medical experts – specialists in the fields of hair growth, hair biology and dermatology. The address of the Company's corporate office and principal place of business is Suite 1225 – 888 Dunsmuir Street, Vancouver, BC, V6C 3K4.

Our technology has been developed over nine years of research, experimentation and trials. The mechanics of our technology involve the extraction of as few as 20 hair follicles from the back of a patient's scalp where healthy cycling hair follicles reside. Specific cells are isolated from the hair follicles and are then replicated in a current Good Manufacturing Practice (“cGMP”) compliant facility through our proprietary cellular replication process and then reintroduced back into balding areas on a patient's scalp. The implanted cells are expected to induce the formation and growth of new hair follicles and are expected to also help rejuvenate damaged hair follicles. Our anticipated long term result is the restoration of a full head of hair that has been seeded by the patient's own natural hair cells.

The product development path of our technology effectively began in 2000/03 when Drs. McElwee and Hoffmann began focusing on specific groups of cells in the hair follicle described as dermal sheath cup cells (“DSCs”). Together they hypothesized that these DSCs were a reservoir of cells that were responsible for the continued cycling of the hair follicle, as well as neogenesis of new hair follicles. Multiple experiments on purpose-bred mice demonstrated that hair follicle DSCs could induce successful hair growth. The scientists' landmark study was published in the peer-reviewed Journal of Investigative Dermatology in ©2003. Together, the scientists filed patent applications. To date, patents have been issued in Europe and Australia, and are now pending in the US, Canada and Japan.

These results have led us to believe in the effectiveness of the procedure and its potential to become a solution to hair loss for the hair restoration market. From 2004 to 2007, the developers of our technology planned for human clinical trials and cell culture laboratories, and sourced initial funding. In 2007, the developers of the technology assigned the technology, including the intellectual property, to TrichoScience Innovations Inc. (“TrichoScience”), all of the shares of which we acquired, in stages, between December 2010 and April 2011.

We believe our technology will offer several advantages over current hair loss solutions. Traditional hair transplantation surgery requires the surgical removal of a prominent band of hair-bearing scalp from the back of the head, dissection of individual hair follicles and then implantation of these follicles into the balding region of the scalp. Often, a number of similar surgical procedures are required to achieve the desired result. In effect, surgical hair transplantation removes and redistributes a patient's own hair follicles to cover sections of bald scalp, leaving a longitudinal scar across the back of a patient's scalp where the strip of skin tissue carrying the hair follicles was removed. In follicular unit extraction (“FUE”) transplants, the back of the scalp is left with multiple small round wound marks where the micro extractions have occurred.

In contrast, our technology is designed to replicate a patient's hair cells and rejuvenate miniaturized hair follicles, as well as induce entirely new follicles to grow from the balding scalp with only a minor single suture closure from the tissue extraction site. We believe there will be minimal pain involved and a short recovery period. Our technology is designed to provide the ability to grow a patient's own hair back, rather than to redistribute hair from the back of the scalp to the front.

In addition, hair transplantation surgery requires a team of six or more people, including up to four technicians trained in micro-dissection. The surgical procedure takes up to eight hours to complete. Our technology is designed to be fully performed by a single clinician who requires minimal additional training. We expect the time involved in the clinic to be less than thirty minutes for tissue collection and less than one hour for cell injection.

Marketing Strategy Overview

We have launched a branded corporate website which can be viewed at www.replicel.com to provide corporate information and information about our technology and the progress of our clinical trials. In the future, this site will act as our principal marketing and communications tool and, in time, we will add sections appropriate to our targeted key audiences – medical professionals, hair restoration clinics and appropriate professional associations. All marketing and communications efforts will feature a constant internet based strategy which we anticipate will allow us to leverage our technology advantages and brand to generate license sales.

We expect that, eventually, a highly targeted marketing effort will supplement the broad communications tactics and website with a focused direct sales campaign to primary licensee markets. We have identified the primary licensee market as more than 800 hair restoration physicians.

Business Model

The RepliCel™ procedure will be marketed directly to those medical professionals currently engaged in hair transplant procedures, as well as established hair loss and dermatology clinics. Access to, and application of the procedure will be offered to these establishments under a licensing arrangement. Clinicians will be charged a license fee by the company on an annual basis. We will then train and educate the clinicians in the RepliCel™ procedure. Clinicians will extract the patient's tissues through a punch biopsy which will then be shipped to our cGMP facilities where cells will be isolated and proprietary cellular replication will take place. We will be able to maintain full control over the cellular replication process through the use of our own contracted facilities and our own trained technicians. We will charge the clinic a per-patient replication fee, while the clinic will be free to set the price it charges the patient, based on what the market will bear. Therefore, we will have two revenue streams: patient fees and annual license fees.

Regulatory Environment

The process of obtaining marketing authorization for the RepliCel™ procedure requires the collection of a thorough body of information that satisfies requirements set forth by regulators that oversee the safety and efficacy of products sold to the public. Each jurisdiction has specific regulatory requirements, many of which differ from region to region.

We are developing a clinical and regulatory strategy that will ensure adherence to regulations that will advance the marketing approval of our technology worldwide. As part of this strategy, plans for the following projects are in development:

1. Completion of a Phase I/IIa human clinical trial in Europe; TS001-2009 trial commenced in December, 2010;
2. Ongoing research and pre-clinical development to enhance knowledge base of our technology; and
3. Initiation of Phase IIb human dosing clinical trials in Europe and/or North America.

Phase I/IIa: TS001-2009

The protocol for the TS001-2009, Phase I/IIa study was developed with advice from European Union regulatory authorities responsible for advanced therapy medicinal products (ATMPs) of which our product is one. The clinical trial is designed to test the safety and efficacy of our technology in men and women with AGA through the assessment of the following endpoints:

1. Primary Endpoint: local safety profile of our technology at the 6-month time point as defined by the incidence, relationship, severity and seriousness of adverse events at the injection sites and local tolerance (as judged by the investigator and patient);
2. Secondary safety endpoints:
 - a. the local safety profile (as defined above) of our technology at the 12 and 24 month time points,
 - b. systemic adverse events over the 24-month study,
 - c. analysis of macroscopic images of injection sites, and
 - d. analysis of histopathological biopsies taken at the 6, 12 and 24 month time points; and
3. Secondary efficacy endpoint:
 - a. difference in hair thickness and hair density between 6 months (Visit 7) and baseline will be calculated using the TrichoScan[®] procedure.

The protocol, designed in compliance with International Conference on Harmonisation guidelines for Good Clinical Practice (ICH GCP), underwent thorough scientific and ethical review by the Georgian National Council of Bioethics and approval to conduct the study was granted on October 27, 2010.

Subjects with mild to moderate AGA categorized on the Ludwig Scale (female) or the Norwood scale (male) were enrolled in the study over a 4-month period starting in December 2010. These subjects provided blood samples to confirm their health status and scalp biopsies which were sent to a cGMP-compliant facility with the specific license to manufacture our product in Austria.

Once the manufacturing process was completed, the 19 subjects returned to the clinic to receive blinded injections of their own (autologous) replicated cells in a carrier medium on one part of the scalp, and another injection of carrier medium without replicated cells (placebo) on the other side of the scalp to allow for better assessment of the safety and efficacy of our technology. The final study participant received injections of hair follicle cells in late August 2011, thus marking the end of the treatment phase of TS001-2009.

In the next stage of the TS001-2009 trial, the post-injection follow-up period, subjects return to the clinic for ten follow-up visits over a 24-month period to have their health closely monitored to ensure that there have been no adverse effects associated with receiving the injections and to determine the efficacy of hair follicle cell injections at stimulating hair growth. Furthermore, at 6, 12 and 24 months post-injection, four subjects at each time point will provide biopsies of the injection sites for histopathological analysis. The post-injection follow-up period will be completed for all patients by the end of August 2013. The total duration of subject participation in the study is approximately 27 months.

An interim analysis of data is scheduled to take place in the first quarter of 2012 once all patients have had a 6-month follow-up visit. The results of this analysis will be released in late April 2012. This data will allow for analysis of the primary endpoint of the study; assessment of the local (at treatment sites) safety profile of our product compared to placebo as defined by adverse events with respect to their causality, incidence, severity and seriousness. Secondary outcome measures of systemic (overall) safety (through review of adverse events

in a similar fashion as described above) and efficacy (hair growth at treatment sites) will also be performed at this time. Analysis of efficacy will also be studied at 9, 12 and 24 months.

Final analysis of safety data from the entire 24-month post-injection follow-up period should be available in late 2013. To date, no serious adverse events have been reported post-injection.

Pre-Clinical Research

Even though our product has already started testing in human subjects; we continue to perform pre-clinical research to improve the production and delivery of our product. Currently we are conducting such research with our partners in Guangzhou, China; Innsbruck, Austria; and Vancouver, Canada in conjunction with the guidance we have received from regulators in the European Union and Canada.

Phase IIb Dosing Clinical Trials

Results from the pre-clinical work will be included along with the study results from TS001-2009 in making the application to perform Phase IIb dosing clinical trials in Europe and North America. The process of making this application will allow regulators to provide feedback on our product and the methodology used to research its effects in humans. Such feedback will allow us to streamline our research efforts to ensure we can bring our product to those in need as quickly and safely as possible.

Intellectual Property

The success of RepliCel will be highly dependent on the protection of our intellectual property. We are developing a diverse portfolio of intellectual property for the use of stem cells in the treatment of hair loss, as well as other medical conditions. For example, RepliCel inventors filed an early patent application on the use of hair follicle derived stem cells (see EP 1 509 597 B1) entitled "Method for isolating hair follicle mesenchymal stem cells". This family of patents describes methods for isolating stem cells from hair follicles, and the growth and use of these stem cells for the treatment of a variety of medical conditions (including hair loss). Within this portfolio, there are granted patents in Australia (AU 2003246521) and Europe (EP1 509 597 B1), which were issued unopposed. Related patent applications are also pending in the United States, Canada and Japan.

Plan of Operations

The sections above contain a broad overview of our plan of operations on a go-forward basis. We intend to specifically focus on continuing our human trials in Europe and preparing for human trials in Canada. During this time, we will attempt to seek regulatory approval in those areas for our technology. We also intend to continue to focus on obtaining patents for our technology in various international jurisdictions. At the same time, we will be taking steps to implement our branding and marketing strategies discussed above under the heading, "Marketing Strategy".

The Company currently has four full time employees, as well as five contractors. These employees have expertise in biotechnology management, clinical trials, financial management and communications.

Marketing

On April 12, 2012, the Company entered into an arrangement with a private US company to perform professional services related to the dissemination of corporate marketing materials. In return for these services, the Company has paid US \$338,000. There is no formal agreement with respect to this arrangement.

Reverse Takeover Transaction

On December 22, 2010, RepliCel closed a Share Exchange Agreement with TrichoScience and with certain accepting shareholders of TrichoScience, whereby RepliCel acquired 50.7% (4,860,000) of the issued and outstanding shares of TrichoScience in exchange for 11,155,165 Common Shares (at an exchange ratio of 2.2958), 5,577,580 Class B preferred shares (each, a "Class B Share") and 5,577,580 Class C convertible preferred shares (each, a "Class C Share") of RepliCel, resulting in such former shareholders of TrichoScience holding 63% of the voting shares of RepliCel. At closing, RepliCel also acquired an additional 1,000,000 common shares of TrichoScience for consideration of \$1,000,000 thereby increasing RepliCel's ownership in TrichoScience to 55.4% at December 31, 2010.

As the former shareholders of TrichoScience controlled 63% of the issued voting shares of RepliCel after the closing of the transaction, the transaction was accounted for as a reverse acquisition, with TrichoScience being the continuing entity and subsequent consolidated financial statements of the Company have been presented as a continuation of TrichoScience.

During the year ended December 31, 2011, RepliCel purchased 2,050,000 newly issued common shares of TrichoScience for \$2,050,000.

The remaining 4,724,800 shares of TrichoScience were tendered for exchange by the remaining TrichoScience shareholders during 2011 in exchange for an aggregate of 10,844,848 Common Shares, 5,422,420 Class B Shares and 5,422,420 Class C Shares, and TrichoScience became a wholly-owned subsidiary of RepliCel. As a result of this and the completion of the purchase of common shares of TrichoScience for an aggregate amount of not less than \$3,000,000 by RepliCel, all Class B Shares were extinguished for no consideration in accordance with their rights and restrictions.

All Common Shares issued to former TrichoScience shareholders have been deposited with a trustee pursuant to the terms of a pooling agreement between RepliCel, the trustee and the individual shareholders. The Common Shares are subject to a timed release schedule under which 15% of the shares will be released on the first day of each of the fiscal quarters occurring after the first anniversary of the closing.

583885 B.C. Ltd.

Concurrent with the reverse acquisition, RepliCel also acquired all of the issued and outstanding common shares of 583885 B.C. Ltd. ("583885") in exchange for the issuance of 4,400,000 Common Shares. 583885 did not have any assets or liabilities at the date of acquisition and was a private company controlled by RepliCel's incoming Chief Executive Officer ("CEO"). 3,400,000 Common Shares controlled by the Company's CEO were deposited with an escrow agent pursuant to the terms of an escrow agreement between RepliCel, the CEO and the escrow agent, to be released upon satisfaction of certain performance conditions as set out in the escrow agreement and each release of shares from escrow will be considered a compensatory award.

During the year ended December 31, 2011, the performance conditions with respect to 350,000 shares (Year ended December 31, 2010: 850,000) had been achieved and \$178,045 (December 31, 2010: \$432,295) (representing the fair value of the shares released from escrow on the date of release) was recorded as stock-based compensation. A further 500,000 Common Shares have been released from escrow as of the date of this MD&A, as the Company has completed financings for aggregate gross proceeds of at least \$4,000,000 since the completion of the acquisitions of TrichoScience and 583885.

Extinguishment of Class B Shares and Class C Shares

In 2011, all Class B Shares were cancelled, for no consideration, in accordance with their rights and restrictions, as the Company achieved the following milestones during the year ended December 31, 2011:

- RepliCel purchased common shares of TrichoScience for an aggregate amount of not less than \$3,000,000 and RepliCel raised the proceeds to make these investments by selling Common Shares at not less than \$1 per share; and
- RepliCel acquired at least 90% of the issued and outstanding common shares of TrichoScience.

During the year-ended December 31, 2011, 13,000,000 Class C Shares, being all the issued and outstanding Class C Shares, were converted, on a 5:1 ratio, into 2,600,002 Common Shares by the holders thereof. All of the Common Shares issued on conversion of the Class C Shares have been deposited with a trustee pursuant to the terms of pooling agreements between RepliCel, the trustee and the respective shareholders. The Common Shares are subject to a timed release schedule under which 15% of the shares will be released on the first day of each of the fiscal quarters beginning January 1, 2013.

The Company amended its Articles and Notice of Articles in 2011 to reflect the extinguishment of the Class B Shares and the Class C Shares.

SELECTED CONSOLIDATED FINANCIAL INFORMATION

The following financial data summarizes selected financial data for our company prepared in accordance with IFRS as issued by the IASB for the two fiscal years ended December 31, 2011 and 2010. The year ended December 31, 2009 was prepared in accordance with Canadian GAAP. An explanation of the impact of the transition to IFRS, including the nature and effect of significant changes in accounting policies from those used in the Company's consolidated financial statements, is included in Note 16 to the Company's financial statements for the year ended December 31, 2011.

	Year ended Dec. 31, 2011 (IFRS) (audited)	Year ended Dec. 31, 2010 (restated for IFRS) (audited)	Year ended Dec. 31, 2009 (Canadian GAAP) (audited)
Net sales or total revenues	\$Nil	\$Nil	\$Nil
Net loss	\$(3,713,439)	\$(2,542,525)	\$(557,860)
Basic and diluted loss per share	\$(0.10)	\$(0.12)	\$(0.03)
Loss attributable to owners of the Parent	\$(3,493,960)	\$(2,542,525)	\$(557,860)
Total assets	\$631,419	\$1,308,742	\$644,466
Long-term liabilities	\$Nil	\$Nil	\$Nil
Dividends declared	\$Nil	\$Nil	\$Nil

RESULTS OF OPERATIONS

Year ended December 31, 2011 compared to year ended December 31, 2010

The Company had no revenue from operations during the year ended December 31, 2011 or 2010. General and administrative expenses totalled \$2,694,031 for the year ended December 31, 2011 compared to \$1,992,276 for the year ended December 31, 2010. The increase in general and administrative expenses was primarily the result of increased accounting and audit fees (2011: \$120,357, 2010: \$81,456), insurance (2011: \$48,007, 2010: \$30,472), marketing consulting fees (2011: \$334,709, 2010: \$57,353), office and telephone (2011: \$98,911, 2010: \$29,556), rent (2011: \$81,330, 2010: \$26,916), salaries (2011: \$623,027, 2010: \$109,830), and travel and promotion (2011: \$130,098, 2010: \$51,065), this increase was offset by decreases in computer and IT expenses (2011: \$17,707, 2010: \$21,638), consulting expense (2011: \$185,959, 2010: \$198,196), listing expense (2011: \$nil, 2010: \$85,000), stock based compensation (2011: \$947,272, 2010: \$1,176,900) and foreign exchange gain (2011: \$(39,386), 2010: \$Nil). The increases in audit and accounting fees, insurance, marketing consulting fees, office and telephone, rent, and travel and promotion were due to

increased operational activities in 2011 as the Company continues with its Phase I/IIa clinical trials. During the year, the Company engaged investor relations and public relations firms which translated into increased marketing consulting fees. These costs also involved the Company's rebranding and renaming with a new website and investor relations materials. The increase in salaries relates to amounts paid to the President & CEO and personnel experienced in finance, research and development and corporate administration. The gain on foreign exchange is attributable to the translation of foreign currency denominated net monetary assets into our functional currency at year-end.

During the year ended December 31, 2011, the Company incurred costs of \$637,649 relating to our clinical trials compared to \$367,763 for the year ended December 31, 2010. The Company incurred research and development consulting fees of \$292,207 and intellectual property costs of \$89,552 in 2011 compared to research and development consulting fees of \$132,100 and intellectual property costs of \$50,386 in 2010. The increase in consulting fees relates to fees paid to personnel experienced in research and development, material and lab costs and contract research agreement costs relating to pre-clinical research projects. Increases in intellectual property costs are the result of expenditures made to further the Company's patent portfolio.

Stock-based compensation expense of \$947,272 (2010: \$1,176,900) was recorded during the year ended December 31, 2011. The overall decrease in stock-based compensation expense in 2011 compared to 2010 was primarily due the share exchange with 583885 in 2010; in 2011, 350,000 shares were released from escrow upon the achievement of a performance condition contained in the escrow agreement, compared to 850,000 released in 2010. The Company recognized \$769,227 (2010: \$235,705) for stock options granted under the Company Stock Option Plan and pursuant to certain stock options granted by founders, and \$178,045 for the release of escrow shares (2010: \$432,395). During the year ended December 31, 2011 the Company modified founders' options previously granted to various individuals and no additional compensation was recognized.

We incurred a net loss for the year ended December 31, 2011 of \$3,713,439 or \$0.10 per share on a basic and diluted basis compared to a net loss of \$2,542,525 or \$0.12 per share on a basic and diluted basis for the year ended December 31, 2010.

FOURTH QUARTER INFORMATION

During the quarter ended December 31, 2011, 13,000,000 Class C Shares, being all of the issued and outstanding Class C Shares, were converted, on a 5:1 ratio, into 2,600,002 Common Shares by the holders thereof. All of the Common Shares issued on conversion of the Class C Shares have been deposited with a trustee pursuant to the terms of pooling agreements between RepliCel, the trustee and the respective shareholders. The Common Shares are subject to a timed release schedule under which 15% of the shares will be released on the first day of each of the fiscal quarters beginning January 1, 2013. The Company amended its Articles and Notice of Articles in the fourth quarter of 2011 to reflect the extinguishment of the Class C Shares.

SUMMARY OF QUARTERLY RESULTS

The following is a summary of our financial results for the eight most recently completed quarters. The figures for the quarter ended December 31, 2011 are calculated from the Company's annual consolidated financial statements prepared under IFRS. All other amounts are from TrichoScience's unaudited quarterly financial statements prepared by management, restated for IFRS. The adoption of IFRS did not have a material effect on the quarterly results presented up to and including December 31, 2010.

	Mar. 31 2010 \$ (restated for IFRS)	Jun. 30 2010 \$ (restated for IFRS)	Sept. 30 2010 \$ (restated for IFRS)	Dec. 31 2010 \$ (restated for IFRS)	Mar. 31 2011 \$	Jun. 30 2011 \$	Sept. 30 2011 \$	Dec. 31 2011 \$
Revenues	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Net loss	(348,219)	(337,464)	(286,011)	(1,570,831)	(897,298)	(1,137,485)	(890,773)	(787,883)
Basic and diluted loss per share	(0.02)	(0.02)	(0.01)	(0.07)	(0.03)	(0.03)	(0.02)	(0.02)

LIQUIDITY AND CAPITAL RESOURCES

Our consolidated financial statements have been prepared on a going concern basis which assumes that the Company will continue to realize its assets and discharge its obligations and commitments in the normal course of operations. At December 31, 2011, the Company had not yet earned revenue from its business, had accumulated losses of \$6,870,221 since incorporation and expects to incur further losses in the development of its business, which casts substantial doubt about the Company's ability to continue as a going concern. Our financial statements do not include any adjustments relating to the recoverability and classification of recorded assets, or the amounts of and classification of liabilities that might be necessary in the event that the Company cannot continue as a going concern.

The Company's ability to continue as a going concern is dependent upon its ability to generate future profitable operations and/or to obtain the necessary financing to meet its obligations and repay its liabilities arising from normal business operations when they come due. The Company has financed its operations to date through the issuance of equity. The continued volatility in the financial equity markets may make it difficult to raise funds by private placements of shares. There is no assurance that the Company will be successful with its financing ventures.

Operating Activities

During the year ended December 31, 2011, the Company used net cash in operating activities of \$3,115,623 compared to \$894,301 for the year ended December 31, 2010. The increase in cash used in operating activities was the result of increased operational activities in 2011 as discussed above and the payment of accounts payable existing at December 31, 2010.

Investing Activities

During the year ended December 31, 2011, the net cash used in investing activities was \$12,929 compared to net cash acquired of \$1,089,215 for the year ended December 31, 2010. Investing activities are primarily related to the purchase of furniture and computer equipment.

Financing Activities

During the year ended December 31, 2011, cash provided by financing activities was \$2,482,170 (US\$ 2,550,000) compared to cash provided of \$412,704 for the year ended December 31, 2010. The increase is a result of a private placement of 2,550,000 Common Shares issued at US\$1.00 per share that took place in 2011.

OUTSTANDING SHARE DATA

<i>Issued and Outstanding – Common Shares</i>	Number of Shares
Balance, December 31, 2010	27,053,960
Shares issued for cash:	
- Private placements at US\$1.00	2,651,200

Issued on tender of TrichoScience shares	10,844,846
Conversion of Class C Preferred shares	2,600,002
Shares issued for cash:	
- Private placements at US\$1.50	1,875,046
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Balance, April 24, 2012	45,025,054

<i>Stock Options Outstanding</i>	Number	Weighted Average Exercise Price
Balance, December 31, 2010	1,485,000	US\$0.50
Granted March 11, 2011	1,350,000	US\$1.00
Granted January 3, 2012	100,000	US\$2.35
Granted April 18, 2012	790,000	US\$1.50
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Balance, April 24, 2012	3,725,000	US\$0.85

<i>Warrants Outstanding</i>	Number	Exercise Price
Balance, December 31, 2010	-	-
Granted February 29, 2012	66,304	US\$2.50
Granted March 29, 2012	876,042	US\$2.50
Granted April 18, 2012	502,667	US\$2.50
Granted April 20, 2012	430,033	US\$2.50
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Balance, April 24, 2012	1,875,046	US\$2.50

Each warrant entitles the holder to purchase an additional Common Share at US\$2.50 per share for a period of 24 months from the date of grant.

Private Placement

Subsequent to December 31, 2011, the Company completed a private placement of 1,875,046 units at US\$1.50 per unit for proceeds of \$2,796,740 (US\$2,812,570). Each unit issued consisted of one Common Share and one Common Share purchase warrant. Each warrant entitles the holder to purchase an additional Common Share at US\$2.50 per share for a period of 24 months from the closing. A finder's fee of \$36,000 was issued in connection with this financing.

Stock Option Plans

Under various stock option agreements, certain founders of TrichoScience granted stock options to acquire TrichoScience shares to employees and consultants of TrichoScience during the year ended December 31, 2010. Each founders' options was to be exercisable into one common share of TrichoScience at a price of \$1 per share, with 1/3 of such options vesting one year from the date of grant and the remaining 2/3 vesting on a monthly basis over between 24-month and 36-month periods expiring after six to seven years. Pursuant to the terms of the TrichoScience share exchange agreement, the right to receive TrichoScience shares under these agreements was converted into a right to receive Common Shares of RepliCel from the Founders. All other terms remained the same.

On December 22, 2010, the Company approved a Stock Option Plan whereby the Company may grant directors, officers, employees and consultants' stock options. The maximum number of shares reserved for issue under the plan cannot exceed 10% of the outstanding Common Shares as at the date of the grant. The stock options can be exercisable for a maximum of 7 years from the grant date and with various vesting terms.

On March 11, 2011, the Company granted 1,350,000 stock options to directors, officers, employees and consultants. The options vest over a period of three years and each is exercisable into one Common Share at US\$1.00 per share until March 11, 2018.

On January 3, 2012, the Company granted 100,000 options to a consultant of the Company. Each option is exercisable into one Common Share at US\$2.35 per share until January 3, 2019. The options vest according to specific milestones.

On April 18, 2012, the Company granted 790,000 options to employees and consultants to the Company. The options vest over a period of three years and each is exercisable into one Common Share at US\$1.50 per share until April 18, 2019.

As at April 24, 2012, 2,160,000 stock options are exercisable.

RELATED PARTY TRANSACTIONS

As at December 31, 2011, included in the accounts payable and accrued liabilities, were \$19,596 (December 31, 2010: \$76,936) due to directors and/or officers of the Company and/or companies they control or of which they were significant shareholders for accrued consulting fees, research and development consulting fees, rent, legal fees and acquisition transaction costs. The amounts owing are unsecured, non-interest bearing and due on demand.

During the year ended December 31, 2011 and 2010, the Company had the following related party transactions:

- Research and development consulting fees totalling \$135,044 (December 31, 2010 - \$144,100) were paid to a director and companies owned by directors and officers of the Company;
- Clinical trial costs of \$103,563 (December 31, 2010 - \$nil) were paid to a company owned by a director of the Company;
- Administrative consulting fees totalling \$45,750 (December 31, 2010 - \$116,475) were paid to directors and officers and companies owned by directors and officers of the Company;
- Rent totalling \$9,000 (December 31, 2010 - \$15,000) were paid to directors and officers and companies owned by directors and officers of the Company;
- Legal fees totalling \$6,621 (December 31, 2010 - \$39,326) were paid to directors and officers and companies owned by directors and officers of the Company;
- The Company considers key management to be the Chief Executive Officer, Chief Financial Officer and executive directors. Salaries and wages totalling \$425,209 (December 31, 2010 - \$30,000) and stock-based compensation totalling \$313,665 (December 31, 2010 - \$432,395) were paid to key management.

These transactions were in the normal course of operations having been measured at the exchange amount, being the amount established and agreed to by the parties.

OFF BALANCE SHEET ARRANGEMENTS

None.

PROPOSED TRANSACTIONS

None.

CRITICAL ACCOUNTING ESTIMATES

The preparation of consolidated financial statements requires the use of estimates, assumptions and judgment that in some cases relate to matters that are inherently uncertain, and which affect the amounts reported in the consolidated financial statements and accompanying notes. Changes to estimates and assumptions may affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period.

Actual results could also differ from those estimates under different assumptions and conditions. Information about critical judgments in applying accounting policies that have the most significant risk of causing material adjustment to the amounts reported in these financial statements are discussed below:

Share Based Payments

The Company measures the cost of equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating fair value for share-based payment transactions requires determining the most appropriate valuation model, which is dependent on the terms and conditions of the grant. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life of the share option, volatility and dividend yield and making assumptions about them. The assumptions and models used for estimating the fair value for share-based payment transactions are disclosed in Note 8 d).

Income Taxes

Significant judgment is required in determining the provision for income taxes. There are many transactions and calculations undertaken during the ordinary course of business for which the ultimate tax determination is uncertain. The Company recognizes liabilities and contingencies for anticipated tax audit issues based on the Company's current understanding of the tax law. For matters where it is probable that an adjustment will be made, the Company records its best estimate of the tax liability including the related interest and penalties in the current tax provision. Management believes they have adequately provided for the probable outcome of these matters; however, the final outcome may result in a materially different outcome than the amount included in the tax liabilities.

In addition, the Company recognizes deferred tax assets relating to tax losses carried forward to the extent there are sufficient taxable temporary differences relating to the same taxation authority and the same taxable entity against which the unused tax losses can be utilized. However, utilization of the tax losses also depends on the ability of the taxable entity to satisfy certain tests at the time the losses are recouped.

Fair Value of RTO Transaction

Significant judgment is required in determining the fair value of the consideration granted during a Reverse Takeover transaction. Estimating the fair value of the shares granted and the fair value released by participating shareholders requires determining the most appropriate valuation model.

CHANGES IN ACCOUNTING POLICIES

The Company's significant accounting policies can be found in Note 3 to its annual audited consolidated financial statements for the year ended December 31, 2011.

International Financial Reporting Standards (“IFRS”)

The Company’s financial statements for the year-ended December 31, 2011 are the first annual financial statements that have been prepared in accordance with IFRS. IFRS 1, First Time Adoption of International Financial Reporting Standards (“IFRS 1”), requires that comparative financial information be provided. As a result, the first date at which the Company has applied IFRS was January 1, 2010 (the “Transition Date”). IFRS 1 requires first-time adopters to retrospectively apply all effective IFRS standards as of the reporting date, which for the Company will be December 31, 2011. Therefore, the financial statements for the year-ending December 31, 2011, the comparative information presented in these financial statements for the year-ended December 31, 2010 and the opening IFRS statement of financial position at January 1, 2010 are prepared in accordance with IFRS standards effective at the reporting date. However, IFRS 1 also provides for certain optional exemptions and certain mandatory exceptions for first time IFRS adopters. Prior to transition to IFRS, the Company prepared its financial statements in accordance with pre-changeover Canadian Generally Accepted Accounting Principles (“pre-changeover Canadian GAAP”).

An explanation of the impact of the transition to IFRS, including the nature and effect of significant changes in accounting policies from those used in the Company’s consolidated financial statements is included in the notes to the financial statements.

Recent Accounting Pronouncements

Certain pronouncements were issued by the IASB or the IFRS Interpretations Committee that are mandatory for accounting periods beginning after January 1, 2011 or later periods.

The following new standards, amendments and interpretations, which have not been early adopted in these consolidated financial statements, will or may have an effect on the Company’s future results and financial position:

- **IFRS 9 Financial Instruments**

IFRS 9 Financial Instruments is part of the IASB's wider project to replace IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 retains but simplifies the mixed measurement model and establishes two primary measurement categories for financial assets: amortized cost and fair value. The basis of classification depends on the entity's business model and the contractual cash flow characteristics of the financial asset. The standard is effective for annual periods beginning on or after January 1, 2013. The Company is in the process of evaluating the impact of the new standard.

- **IFRS 10 Consolidated Financial Statements**

IFRS 10 builds on existing principles by identifying the concept of control as the determining factor in whether an entity should be included within the consolidated financial statements of the parent company. The standard provides additional guidance to assist in the determination of control where this is difficult to assess. The Company is yet to assess the full impact of IFRS 10 and intends to adopt the standard no later than the accounting period beginning on January 1, 2013.

- **IFRS 13 Fair Value Measurement**

IFRS 13 aims to improve consistency and reduce complexity by providing a precise definition of fair value and a single source of fair value measurement and disclosure requirements for use across IFRSs. The requirements, which are largely aligned between IFRSs and US GAAP, do not extend the use of fair value accounting but provide guidance on how it should be applied where

its use is already required or permitted by other standards within IFRSs or US GAAP. The Company is yet to assess the full impact of IFRS 13 and intends to adopt the standard no later than the accounting period beginning on January 1, 2013.

The following new standards, amendments and interpretations, which have not been early adopted in these consolidated financial statements, will not have an effect on the Company's future results and financial position:

- IFRS 1: Severe Hyperinflation (Effective for periods beginning on or after July 1, 2011)
- IAS 12: Deferred Tax: Recovery of Underlying Assets (Amendments to IAS 12 (Effective for periods beginning on or after January 1, 2012)
- Amendments to IFRS 9: Financial Instruments (Effective for periods beginning on or after January 1, 2013)

FINANCIAL INSTRUMENTS AND OTHER INSTRUMENTS

As at December 31, 2011, the Company's financial instruments are comprised of cash, accounts payable and accrued liabilities and advances payable. The fair values of cash, accounts payable and accrued liabilities and advances payable approximate their carrying value due to their short-term maturity. The Company is exposed through its operations to the following financial risks:

- Currency risk
- Credit risk
- Liquidity risk
- Interest rate risk

In common with all other businesses, the Company is exposed to risks that arise from its use of financial instruments. This note describes the Company's objectives, policies and processes for managing those risks and the methods used to measure them. Further quantitative information in respect of these risks is presented throughout these financial statements.

There have been no substantive changes in the Company's exposure to financial instrument risks, its objectives, policies and processes for managing those risks or the methods used to measure them from previous periods unless otherwise stated in this note.

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Company has an exposure to the European Euros as certain expenditures and commitments are denominated in European Euros and the Company is subject to fluctuations as a result of exchange rate variations to the extent that transactions are made in this currency. In addition, the Company holds a significant amount of cash in US dollars and is therefore exposed to exchange rate fluctuations on these cash balances. The Company does not hedge its foreign exchange risk. At December 31, 2011 the Company held cash balances of \$302,611 US (December 31, 2010: Nil). A 1% increase/decrease in the USD foreign exchange rate would have an impact of \pm \$3,026 on the cash balance held at December 31, 2011.

Credit risk is the risk of an unexpected loss if a customer or third party to a financial instrument fails to meet its contractual obligations. The Company's credit risk is primarily attributable to its cash. The Company limits exposure to credit risk by maintaining its cash with large financial institutions. The Company's maximum exposure to credit risk is the carrying value of its financial assets.

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company manages liquidity risk through the management of its capital structure, more specifically, the

issuance of new common shares, to ensure there is sufficient capital in order to meet short term business requirements, after taking into account the Company's holdings of cash and potential equity financing opportunities. The Company believes that these sources will be sufficient to cover the known short and long-term requirements at this time. There is no assurance that potential equity financing opportunities will be available to meet these obligations.

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. As the Company's cash is currently held in an interest bearing bank account, management considers the interest rate risk to be limited. Advances payable are non-interest bearing and therefore are not subject to interest rate risk.

RISKS AND UNCERTAINTIES

Risks Relating to our Business

In addition to the other risks and uncertainties set out earlier in this MD&A, the Company is also exposed to the following risks and uncertainties:

Our company currently does not generate revenue from its planned operations, and as a result, it faces a high risk of business failure.

We have not generated any revenues from our planned operations to date. As of December 31, 2011, we had accumulated \$6,870,221 in losses since inception. Our business is focused on the development of a new hair cell replication technology. In order to generate revenues, we will incur substantial expenses in the development of our business. We therefore expect to incur significant losses in the foreseeable future. Our company recognizes that if we are unable to generate significant revenues from our activities, our entire business may fail. There is no history upon which to base any assumption as to the likelihood that we will be successful in our plan of operation, and we can provide no assurance to investors that we will generate operating revenues or achieve profitable operations in the future.

Our auditors' opinion on our December 31, 2011 financial statements includes an explanatory paragraph in respect of there being substantial doubt about our ability to continue as a going concern.

We have incurred a net loss of \$6,870,221 for the cumulative period from September 7, 2006 (inception) to December 31, 2011. We anticipate generating losses for at least the next 12 months. Therefore, there is substantial doubt about our ability to continue operations in the future as a going concern, as described by our auditors with respect to the financial statements for the year ended December 31, 2011. Our financial statements do not include any adjustments relating to the recoverability and classification of recorded assets, or the amounts of and classification of liabilities that might be necessary in the event that we cannot continue in existence. Our business operations may fail if our actual cash requirements exceed our estimates and we are not able to obtain further financing. If we cannot continue as a viable entity, our shareholders may lose some or all of their investment in our company.

Our business is at an early stage of development and difficulties obtaining regulatory approval, technical deficiencies and other challenges may hinder the development and marketing of our hair cell replication technology.

Our hair cell replication technology is at an early stage of development and we may not develop hair cell replication technology that can be commercialized. We are still in the early stages of identifying and conducting research on our technology. Our technology will require significant research and development and preclinical and clinical testing prior to regulatory approval, if required, being obtained in the United States or other countries. We may not be able to obtain regulatory approvals, if required, to complete necessary clinical trials for our hair cell replication technology, or to commercialize it. Our technology may prove to have undesirable and unintended side effects, or other characteristics adversely affecting its safety, efficacy or cost-effectiveness

could prevent or limit its use. Our technology may fail to provide its intended benefit, or achieve benefits equal to or better than our competitor's products at the time of testing or production and, if so, our business may fail.

Our clinical trials may fail to produce successful results or could be suspended due to unacceptable safety risks, which could cause our business to fail.

Clinical trials are subject to extensive regulatory requirements, and are very expensive, time-consuming and difficult to design and implement, in part because they may be subject to rigorous regulatory requirements. Our products may fail to achieve necessary safety and efficacy endpoints during clinical trials. We believe that our clinical trials will take a substantial period of time to complete. Furthermore, failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon or repeat clinical trials. The commencement and completion of clinical trials may be delayed by several factors, including: unforeseen safety issues; lack of effectiveness during clinical trials; slower than expected rates of patient recruitment; and inability to monitor patients adequately during or after treatment. In addition, we or regulatory officials may suspend our clinical trials at any time if it appears that we are exposing participants to unacceptable health risks. If our clinical trials fail to produce successful results, or are suspended due to unacceptable safety risks, our business may fail.

Our success depends on the acceptance of our hair cell replication technology by the medical community and consumers as a safe and effective solution.

The success of our hair cell replication technology will depend on its acceptance by potential consumers and the medical community. Because our technology is new in the treatment of pattern baldness, the long term effects of using our new hair cell replication technology are unknown. The results of short-term clinical trials do not necessarily predict long-term clinical benefit or reveal adverse effects. If results obtained from future commercial experience indicate that our hair cell replication technology is not as safe or effective as other hair restoration treatments, adoption of this technology by consumers and the medical community may suffer and our business will be harmed.

If we are not able to effectively protect our existing intellectual property, our business may suffer a material negative impact and may fail.

The success of our company will be dependent on our ability to protect and develop our technology. We currently have registered patents for our hair cell replication technology in Australia and the European Union. If we are unable to protect our intellectual property, our business may be materially adversely affected. Further, we cannot be sure that our activities do not and will not infringe on the intellectual property rights of others. If we are compelled to prosecute infringing parties, defend our intellectual property or defend ourselves from intellectual property claims made by others, we may face significant expense and liability, as well as the diversion of management's attention from our business, any of which could negatively impact our business or financial condition.

The successful acquisition and maintenance of patent rights is critical to our business and any failure in this regard could hinder the development and marketing of our technology.

We currently have patent applications pending in the United States and several other countries around the world. Our pending patent applications may not result in the issuance of any patents. The applications may not be sufficient to meet the statutory requirements for patentability in all cases or may be the subject of interference proceedings by patent offices. These proceedings determine the priority of inventions and, thus, the right to a patent for technology. In the past, our patent applications have experienced delays and our patent applications may be delayed in the future. If others file patent applications or obtain patents similar to those we have licensed, such patents may restrict the use of our discoveries. The risk of third parties obtaining patents and filing patent applications will continue to increase as the hair restoration market expands. We

cannot predict the ultimate scope and validity of existing patents and patents that may be granted to third parties, nor can we predict the extent to which we may wish or be required to obtain licenses to use such patents, or the availability and cost of acquiring such licenses. To the extent that licenses are required, the owners of the patents could bring legal actions against us to claim damages or to stop our manufacturing and marketing of the affected technology. If we become involved in patent litigation, it could consume a substantial portion of our resources.

Competitors in the hair restoration and related fields may currently offer, or may develop, superior hair loss solutions which could limit the market for our technology.

The market for hair restoration products and technology is competitive. We expect that some of our most significant competitors will be more established companies. These companies may have greater capital resources or experience in research and development, manufacturing, testing, obtaining regulatory approvals or marketing capabilities. As a result, our competitors may develop more competitive or affordable products, or achieve earlier patent protection or product commercialization than we are able to achieve. We face competition from companies offering traditional more established products and technologies.

Our company may be subject to changes and uncertainties in laws and government regulations.

Our company is subject to regulation by domestic and foreign governmental agencies with respect to many aspects of developing hair cell replication technology. In addition, relevant new legislation or regulation could occur. Any such new legislation or regulation, the application of laws and regulations from jurisdictions whose laws do not currently apply to our company's business, or the application of existing laws and regulations to hair cell replication technology, could have a material adverse effect on our company's business, prospects, financial condition and results of operations.

Risks Relating to our Management

We are dependent on the services of certain key consultants and the loss of any of these key consultants may have a materially adverse effect on our company.

While engaged in the business of developing a new hair cell replication technology, our company's ability to continue to develop a competitive edge in the marketplace will depend, in large part, on our ability to attract and maintain qualified key management personnel. Competition for such personnel is intense, and we may not be able to attract and retain such personnel. Our company's growth has depended, and in the future will continue to depend, on the efforts of our key management consultants. Loss of any of these people would have a material adverse effect on our company. Currently, our company does not have key-man life insurance.

Conflicts of interest may arise as a result of our company's directors and officers being directors or officers of other life sciences companies.

Certain of our company's directors and officers are, or may become, directors or officers of other life sciences companies. While we are engaged in the business of developing a new hair cell replication technology, such associations may give rise to conflicts of interest from time to time. Our company's directors are required by law to act honestly and in good faith with a view to our company's best interests and to disclose any interest that they may have in any project or opportunity of our company. If a conflict of interest arises at a meeting of our company's board of directors, any director in a conflict must disclose his interest and abstain from voting on such matter. In determining whether or not our company will participate in any project or opportunity, our company's directors will primarily consider the degree of risk to which our company may be exposed and our financial position at the time.

Our company's by-laws contain provisions indemnifying our officers and directors against all costs, charges and expenses incurred by them.

Our company's by-laws contain provisions limiting the liability of our officers and directors for all acts, receipts, neglects or defaults of themselves and all of our other officers or directors or for any loss, damage or expense incurred by our company which may happen in the execution of the duties of such officers or directors. Such limitations on liability may reduce the likelihood of derivative litigation against our company's officers and directors and may discourage or deter our shareholders from suing our company's officers and directors based upon breaches of their duties to our company, though such an action, if successful, might otherwise benefit our company and our shareholders.

As a majority of our directors and officers are residents of countries other than the United States, investors may find it difficult to enforce, within the United States, any judgments obtained against our company, directors and officers.

We are a British Columbia, Canada company. A majority of our directors and officers are nationals and/or residents of countries other than the United States, and all or a substantial portion of such persons' assets are located outside the United States. Consequently, it may be difficult for United States investors to effect service of process in the United States upon those directors or officers who are not residents of the United States, or to realize in the United States upon judgments of United States courts predicated upon civil liabilities under United States legislation. There is substantial doubt whether an original action based solely upon such civil liabilities could be brought successfully in Canada against any of such persons or our company.

OTHER INFORMATION

The Company's website address is www.replicel.com. Other information relating to the Company may be found on SEDAR at www.sedar.com

BOARD APPROVAL

The board of directors of the Company has approved this MD&A