UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 20-F
(Amendment No. _____)

(Mark One)

[ ] REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2021

OR

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

OR

[ ] SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report: _____

For the transition period from _____ to _____

Commission file number **000-50112**

REPLICEL LIFE SCIENCES INC.
(Exact name of Registrant as specified in its charter)

Not Applicable
(Translation of Registrant's name into English)

British Columbia, Canada
(Jurisdiction of incorporation or organization)

Suite 900 – 570 Granville Street
Vancouver, British Columbia, Canada V6C 3P1
(Address of principal executive offices)

Lee Buckler, President & CEO
Telephone: (604) 248-8730
Suite 900 – 570 Granville Street
Vancouver, British Columbia, Canada V6C 3P1

Facsimile: (604) 248-8690
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbols(s)	Name of each exchange on which registered
Not Applicable	**Not Applicable**	**Not Applicable**

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Common Shares Without Par Value
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

Not Applicable
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: **42,749,565 common shares as of June 27, 2022.**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
[ ] YES [X] NO

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.
[ ] YES [X] NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
[X] YES [ ] NO

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
[X] YES [ ] NO

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or an emerging growth company. See definition of "accelerated filer", "large accelerated filer", and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer [ ] Accelerated filer [ ] Non-accelerated filer [X]
Emerging growth company [ ]

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. [ ]

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP [ ] International Financial Reporting Standards as issued by the International Accounting Standards Board [X] Other [ ]

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.
[ ] Item 17 [ ] Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
[ ] YES [X] NO

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.
[ ] YES [ ] NO

GENERAL INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 20-F contains forward-looking statements. Forward-looking statements are projections in respect of future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may", "should", "intend", "expect", "plan", "anticipate", "believe", "estimate", "predict", "potential", or "continue", or the negative of these terms or other comparable terminology. Forward-looking information presented in such statements or disclosures may, among other things, include:

- belief that chronic tendon injuries resulting from sports-related or occupational overuse is a significant unmet medical need;
- belief that RCT-01 has advantages over current treatments such as the use of non-steroidal anti-inflammatory medication or corticosteroids which are limited in efficacy;
- belief that the data from a phase 1/2 clinical trial to test the safety and efficacy of injections of RCT-01 on patients suffering from chronic achilles tendinosis in Canada are sufficient to support regulatory approvals to proceed to a phase 2 trial and the design of such a dose-finding trial;
- belief that the data from the phase 1 clinical trial to test the safety and certain biological outcomes of injections of RCS-01 in patients with aging and sun-damaged skin supports regulatory approvals to proceed to a phase 2 trial and the design of such a dose-finding trial;
- belief that regulatory agencies including those in the United States, China, Europe, Canada and Japan will approve applications to market the DermaPrecise product line without major objection or delay;
- research pertaining to and plans to continue to prepare for a phase 2 dose-finding trail for RCH-01 and details of such a trial;
- belief that the DermaPrecise trademark filings will be generally accepted in most jurisdictions where they are submitted;
- belief that the DermaPrecise dermal injector device will have applications in certain dermatological procedures and preparation for its commercialization including building of commercial/clinical-grade prototypes, validation testing of such prototypes, filing of the regulatory submissions seeking regulatory approval to market the device will lead to commercial launch, revenue generation, and commercial partners; expectations regarding regulatory clearances to conduct trials and market products;
- belief that it will be able to meet the requirements to conduct clinical research studies of RCT-01 and RCS-01 in Japan under the guidelines of Japan's Act for the Safety of Regenerative Medicine (ASRM) regulations using its current contract manufacturing facility, Innovacell in Innsbruck, Austria, and that positive safety and clinical data from such studies could be sufficient to support the Company's commercial launch of both products in Japan;
- belief that the regulatory agencies in China will approve applications to proceed with clinical studies of RCT-01 and RCS-01 in China without significant objection or delay;
- belief as to the potential of the Company's products;
- expectations regarding the performance of its commercial partners, YOFOTO, Shiseido, and MainPointe;
- expectations regarding the payment of milestone payments by YOFOTO;
- expectations regarding the ability of the Company to procure new partnerships in Japan to fund clinical development/testing of RCS-01 and RCT-01 products in Japan;
- expectations regarding the performance of critical suppliers and service providers;
- forecasts of expenditures;
- expectations regarding our ability to raise capital;
- business outlook;
- plans and objectives of management for future operations; and
- anticipated financial performance.

Various assumptions or factors are typically applied in drawing conclusions or making the forecasts or projections set out in forward-looking information. Those assumptions and factors are based on information currently available to our company, including information obtained from third-party industry analysts and other third party sources. In some instances, material assumptions and factors are presented or discussed elsewhere in this annual report in connection with the statements or disclosure containing the forward-looking information. You are cautioned that the following list of material factors and assumptions is not exhaustive. The factors and assumptions include, but are not limited to, our assumption that there be:

- no unforeseen changes in the legislative and operating framework for the business of our company;
- a stable competitive environment; and
- no significant event occurring outside the ordinary course of business such as a natural disaster or other calamity.

These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks set out in the section entitled "Risk Factors" commencing on page 8, which may cause our or our industry's actual results, levels of activity or performance to be materially different from any future results, levels of activity or performance expressed or implied by these forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity or performance. Further, any forward-looking statement speaks only as of the date on which such statement is made, and, except as required by applicable law, we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for management to predict all of such factors and to assess in advance the impact of such factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statement.

As used in this annual report, the terms "the Company", "we", "us", "our", and "RepliCel" mean RepliCel Life Sciences Inc., a British Columbia, Canada, corporation, and our wholly-owned subsidiary, TrichoScience Innovations Inc., as applicable. All references to common shares are to the common shares of our company, unless otherwise stated. Information on our website, www.replicel.com, is not incorporated by reference into this annual report.

APPLICATION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS

Effective from January 1, 2011, we adopted International Financial Reporting Standards ("**IFRS**"), as issued by the International Accounting Standards Board. Unless otherwise stated, all information presented herein has been prepared in accordance with IFRS and all prior period amounts have been reclassified to conform with IFRS.

CURRENCY

Unless otherwise stated, "$", when used in this annual report on Form 20-F, refers to Canadian dollars and US$ refers to United States dollars.

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PART 1

ITEM 1 Identity of Directors, Senior Management and Advisers

Not applicable.

ITEM 2 Offer Statistics and Expected Timetable

Not applicable.

ITEM 3 Key Information

A. Reserved

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Much of the information included in this annual report includes or is based upon estimates, projections or other "forward-looking statements". Such forward-looking statements include any projections or estimates made by our company and our management in connection with our business operations. While these forward-looking statements, and any assumptions upon which they are based, are made in good faith and reflect our current judgment regarding the direction of our business, actual results will almost always vary, sometimes materially, from any estimates, predictions, projections, assumptions or other future performance suggested herein. Such estimates, projections or other forward-looking statements involve various risks and uncertainties as outlined below. We caution the reader that important factors in some cases have affected and, in the future, could materially affect actual results and cause actual results to differ materially from the results expressed in any such estimates, projections or other forward-looking statements.

The common shares of our company are considered speculative. You should carefully consider the following risks and uncertainties in addition to other information in this annual report in evaluating our company and our business before purchasing any common shares of our company. Our business, operating and financial condition could be harmed due to any of the following risks.

Risks Relating to our Business

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

We have generated $5,349,266 in licensing revenues from our operations to date. This revenue was the payment of an upfront fee of $4,120,400 pursuant to a Collaboration and Technology Transfer Agreement with Shiseido Company, Limited ("**Shiseido**") and $1,228,866 pursuant to a License and Collaboration Agreement with YOFOTO (China) Health Industry Co. Ltd. ("**YOFOTO**") for certain development and commercialization rights to certain products (the "**Licensed Technology**") for Greater China (Hong Kong, People's Republic of China, Macau, and Taiwan) (the "**Licensed Territory**"). This revenue was not recurring revenue from our operations and we may not generate similar revenue in the future.

YOFOTO – License and Collaboration Agreement

The Company is exposed to certain risks should YOFOTO not obtain local regulatory approvals and therefore be able to commercialize its licensed products.

The deal structure also includes milestone payments (of up to CDN $4,750,000), sales royalties, and a commitment by YOFOTO to spend a minimum of CDN $7,000,000 on the RepliCel programs and associated cell processing manufacturing facility over the next five years in Greater China pursuant to a License and Collaboration Agreement. The License and Collaboration Agreement contains a provision permitting YOFOTO to put up to 2/3 of the shares issued in YOFOTO's initial investment back to our company under certain conditions for a period of 8.5 years from July 10, 2018.

RepliCel is at risk of a possibility of YOFOTO not being able to discharge its obligations in the Agreement and thereby causing RepliCel not to receive its scheduled milestone payments. Should it be deemed not to be YOFOTO's fault in not meeting its milestone targets, our company may have the risk of having YOFOTO exercising its put options and have RepliCel buy back 2/3 of the shares.

There is a potential risk of YOFOTO not protecting RepliCel's intellectual property in the Licensed Territory in the event an actual or alleged infringement, by a third party, of the Licensed Technology or the Issued Patents or any right with respect to the Licensed Technology or the Issued Patents in the License Territory.

We have not reached profitability and currently have negative operating cash flows and a working capital deficit and will have to conduct additional financings to fund our operations.

As of December 31, 2021, we had accumulated $42,231,642 in net losses since inception. Our business is focused on developing autologous cell therapies that treat functional cellular deficits including chronic tendon injuries, androgenetic alopecia and skin aging. 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.

We had cash and cash equivalents in the amount of $221,188 and current liabilities in excess of current assets of $1,280,642 as of December 31, 2021. The Company anticipates that it will require approximately $1,200,000 to proceed with its plan of operations focused on completing the RCI-02 device (the dermal injector), meeting its obligations to support YOFOTO's activities in Greater China, and preparing for next-phase clinical development and commercialization in Japan over the twelve-month period ended December 31, 2022.

In order to fund our plan of operations for the next twelve months, we may seek to sell additional equity or debt securities or obtain a credit facility. The sale of convertible debt securities or additional equity securities could result in additional dilution to our shareholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations and liquidity.

Our auditor's opinion on our December 31, 2021 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 an accumulated deficit of $42,231,642 for the cumulative period from September 7, 2006 (inception) to December 31, 2021. We anticipate generating losses for at least the next 12 months. As at December 31, 2021 we had current liabilities in excess of current assets of $1,280,642 (2021: working capital deficit of $2,053,337) and we will require additional funding to continue our research and development activities, which casts substantial doubt about our 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 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 autologous cell therapies.

Our autologous cell therapy technology is at an early stage of development and we may not develop a 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, Canada or other countries. We may not be able to obtain regulatory approvals, if required, to complete necessary clinical trials for our 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 cell replication technology by the medical community and consumers as a safe and effective solution.

The success of our cell replication technology will depend on its acceptance by potential consumers and the medical community. Because our technology is new in the treatment of functional cellular deficits including chronic tendon injuries, androgenetic alopecia and skin aging, the long term effects of using our new 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 cell replication technology is not as safe or effective as other treatments, adoption of this technology by consumers and the medical community may suffer and our business will be harmed.

We face significant competition and if we are unable to successfully compete, our business may suffer a material negative impact.

The life sciences industry is highly competitive. We anticipate that we will continue to face increased competition as existing companies develop new or improved products and as new companies enter the market with new technologies. Many of our competitors are significantly larger than us and have greater financial, technical, research, marketing, sales, distribution and other resources than us. There can be no

assurance that our competitors will not succeed in developing or marketing technologies and products that are more effective or commercially attractive than the products we are developing or that such competitors will not succeed in obtaining regulatory approval, or introducing or commercializing any such products, prior to us. Such developments could have a material adverse effect on our business, financial condition and results of operations. Also, even if we are able to compete successfully, there can be no assurance that we could do so in a profitable manner.

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 cell replication technology in Australia, the United States, Japan 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 actual protection afforded by a patent varies on a product-by-product basis, from country to country and depends on many factors, including the type of patent, the scope of its coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patents. Our ability to maintain and solidify our proprietary position for our products will depend on our success in obtaining effective claims and enforcing those claims once granted. Our registered patents and those that may be issued in the future, or those licensed to us, may be challenged, invalidated, unenforceable or circumvented, and the rights granted under any issued patents may not provide us with proprietary protection or competitive advantages against competitors with similar products. We also rely on trade secrets to protect some of our technology, especially where it is believed that patent protection is not appropriate or obtainable. However, trade secrets are difficult to maintain. While we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. In addition, non-U.S. courts are sometimes less willing than U.S. courts to protect trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them and our business could be harmed.

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 several 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. 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.

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 autologous 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 cell replication technology, could have a material adverse effect on our company's business, prospects, financial condition and results of operations.

Our company may be impacted by the COVID-19 Coronavirus Outbreak

On March 11, 2020, the World Health Organization declared the outbreak of a strain of novel coronavirus, COVID-19 ("**COVID-19**"), which has had a significant impact on businesses through the restrictions put in place by the Canadian and U.S. governments regarding travel, business operations and isolation/quarantine orders. At this time, the extent of the impact that the COVID-19 outbreak may have on the Company is unknown as this will depend on future developments that are highly uncertain and that cannot be predicted with confidence. These uncertainties arise from the inability to predict the ultimate geographic spread of the virus, and the duration of the outbreak, including the duration of travel restrictions, business closures, and quarantine/isolation measures that are currently, or may be put, in place by Canada, U.S. and other countries to fight the virus. The Company continues to monitor its impact of its operations and financing activities and assess the impact COVID-19 will have on its business activities. The extent of the effect of COVID-19 pandemic on the Company is uncertain and management does not expect the effect to be significant.

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 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 autologous 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. 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 articles contain provisions indemnifying our officers and directors against all costs, charges and expenses incurred by them.

Our articles 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.

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.

Risks Relating to our Common Stock

If our business is unsuccessful, our shareholders may lose their entire investment.

Although shareholders will not be bound by or be personally liable for our expenses, liabilities or obligations beyond their total original capital investment, should we suffer a deficiency in funds with which to meet our obligations, the shareholders as a whole may lose their entire investment in our company.

Trading of our company's common shares on the Pink Sheets (operated by the OTC Markets Group) and the TSX Venture Exchange is limited and sporadic, making it difficult for our company's shareholders to sell their common shares or liquidate their investments.

The trading price and volume of our company's common shares has been and may continue to be subject to wide fluctuations. The stock market has generally experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies. There can be no assurance that trading prices previously experienced by our company's common shares will be matched or maintained. Trading in our common shares has been limited and sporadic and accordingly there is no guarantee that an investor will be able to liquidate any or all of its investment. These broad market and industry factors may adversely affect the market price of the common shares, regardless of our company's operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class-action litigation has often been instituted. Such litigation, if instituted, could result in substantial costs for our company and a diversion of management's attention and resources.

Investors' interests in our company will be diluted and investors may suffer dilution in their net book value per share if we issue additional options to any of our officers, directors, employees or consultants.

Because our company's success is highly dependent upon our directors, officers and consultants, we have granted, and may again in the future grant, options to some or all of our key officers, directors, employees and consultants to purchase our common shares as non-cash incentives. Options may be granted at exercise prices below that of our common shares prevailing in the public trading market at the time or may be granted at exercise prices equal to market prices at times when the public market is depressed. To the extent that significant numbers of such options may be granted and exercised, the interests of our company's other shareholders may be diluted.

Investors' interests in our company will be diluted and investors may suffer dilution in their net book value per share if our company issues additional common shares or raises funds through the sale of equity securities.

In the event that our company is required to issue additional common shares in order to raise financing for working capital, investors' interests in our company will be diluted and investors may suffer dilution in their net book value per share depending on the price at which such securities are sold. The dilution may result in a decline in the market price of our common shares.

Penny stock rules limit the ability of our shareholders to sell their stock.

The Securities and Exchange Commission has adopted regulations which generally define "penny stock" to be any equity security that has a market price (as defined) less than $5.00 per share or an exercise price of less than $5.00 per share, subject to certain exceptions. Our securities are covered by the penny stock rules, which impose additional sales practice requirements on broker-dealers who sell to persons other than established customers and accredited investors. The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document in a form prepared by the Securities and Exchange Commission, which provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction and monthly account statements showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation. In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from these rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for the stock that is subject to these penny stock rules. Consequently, these penny stock rules may affect the ability of broker-dealers to trade our securities.

The Financial Industry Regulatory Authority, or FINRA, has adopted sales practice requirements which may also limit a shareholder's ability to buy and sell our stock.

In addition to the "penny stock" rules described above, FINRA has adopted rules that require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low priced securities will not be suitable for at least some customers. FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our common shares.

We do not intend to pay dividends on any investment in the shares of stock of our company.

We have never paid any cash dividends and currently do not intend to pay any dividends for the foreseeable future. To the extent that we require additional funding currently not provided for in our financing plan, our funding sources may prohibit the payment of a dividend. Because we do not intend to declare dividends, any gain on an investment in our company will need to come through an increase in the stock's price. This may never happen and investors may lose all of their investment in our company.

ITEM 4 Information on RepliCel Life Sciences Inc.

A. History and Development of our Company.

Name

Our legal name is "RepliCel Life Sciences Inc.". We changed our name from "Newcastle Resources Ltd." on June 22, 2011.

Principal Office

Our principal office is located at Suite 900 - 570 Granville Street, Vancouver, British Columbia, Canada V6C 3P1. Our telephone number is (604) 248-8730 and our facsimile number is (604) 248-8690.

Corporate Information and Important Events

Our company was incorporated under the laws of the Province of Ontario (specifically under the *Business Corporations Act* (Ontario)) on April 24, 1967 under the name "Jolly Jumper Products of America Limited". On September 25, 1987, our name was changed to "Sun Valley Hot Springs Ranch Inc.". We changed our name to "Tri-Valley Free Trade Inc." on March 26, 1991 and to "Tri-Valley Investments Corporation" on June 19, 1995. On October 2, 1998, we changed our name to "TriLateral Venture Corporation". On May 6, 2004, we changed our name to "Pan American Gold Corporation" and on November 10, 2008, we changed our name to "Newcastle Resources Ltd.". On June 22, 2011, we continued our company from Ontario into British Columbia and changed our name to "RepliCel Life Sciences Inc.". We are a reporting issuer under the securities laws of the Provinces of British Columbia, Alberta and Ontario. Our company operates under the *Business Corporations Act* (British Columbia), pursuant to which our company has an indefinite life span.

On January 22, 2021, we signed a share purchase agreement with MainPointe Pharmaceuticals LLC for an investment of $2,700,000 and a limited term distribution partnership for our dermal injector and consumables (the "**RepliCel Injector Product Line**") in the United States. As part of the partnership, MainPointe has agreed to pay all costs related to securing FDA approvals to launch the RepliCel Injector Product Line in the U.S. market. On January 22, 2021, we also signed a royalty rights agreement and distribution agreement with MainPointe. A shareholder director of RepliCel is the chief technology officer of MainPointe.

In consideration for an investment of $2,700,000 and the payment of all costs related to obtaining FDA approval for our dermal injector and consumables, we agreed to issue MainPointe up to an aggregate of 4,000,000 common shares, a right to participate in our company's royalty revenue stream up to a defined ceiling, and certain distribution rights of RepliCel Injector Product Line in the United States. The investment will be made as to $500,000 within five (5) days of receipt of conditional approval from the TSX Venture Exchange (the "**Exchange**"), $1,200,000 by February 15, 2021, $700,000 by April 21, 2021 and $300,000 by August 21, 2021. The common shares will be priced at the greater of $0.675 or the Discounted Market Price as such term is defined in the Policies of the Exchange. On February 8, 2021, we received $492,092 from MainPointe and issued 729,024 common shares to MainPointe at a price of $0.675 per common share. On March 23 and April 23, 2021, an aggregate of $1,207,871 was received from MainPointe and an aggregate of 1,777,778 common shares were issued MainPointe at a price of $0.675 per common share. On August 30 and November 30, 2021, an aggregate of $998,921 was received from MainPointe and an aggregate of 1,479,882 common shares were issued MainPointe at a price of $0.675 per common share on December 17, 2021.

The royalty right will be equal to (a) 5% of the amounts earned by and paid to the Issuer from the sale of any of its "NBDS Products" defined as its RCS-01 (NBDS Fibroblast Therapy – Treatment for Aging Skin), RCT-01 (NBDS Fibroblast Therapy – Treatment for Chronic Tendinosis), and any other product which is comprised of the non-bulbar dermal sheath cells patented by the Issuer, and (b) 20% of the amounts earned

by and paid to the Issuer from the sale of any of its "DSC Products" defined as its RCH-01 (DSC Therapy for Treatment Androgenic Alopecia) and any other product which is comprised of the dermal sheath cup cells patented by the Issuer.

In consideration for paying all expenses required to obtain regulatory approval for the RepliCel Injector Product Line, the exclusive distribution rights shall commence upon receipt of regulatory approval to launch the RepliCel Injector Product Line in the U.S. market for a period expiring on the earlier (a) four (4) years, or (ii) when MainPointe has earned USD $2,000,000 in gross income from the sale of the products in the RepliCel Injector Product Line. The Issuer will have the right, in its discretion, to buy out this exclusivity right for an amount equal to the net-present value of profit to be earned on USD $2,000,000 in gross income.

On February 17, 2021, we issued 5,000 common shares on exercise of warrants at a price of $0.36 per common share for aggregate proceeds of $1,800.

On May 17, 2021, we issued 126,492 common shares in settlement of accrued dividends earned on the class A shares at a price of $0.375 per share.

On June 2, 2021, we settled $342,500.80 in debt by the issuance of 889,612 common shares at a deemed price of $0.385 per common share.

Capital Expenditures

During the last three fiscal years ended December 31, 2021, we did not undertake any capital expenditures.

Takeover offers

We are not aware of any indication of any public takeover offers by third parties in respect of our common shares during our fiscal years ended December 31, 2021 and 2020.

On December 8, 2020, our shareholders adopted the Rights Plan. The objectives of the Rights Plan are to ensure, to the extent possible, that all shareholders are treated equally and fairly in connection with any take-over bid or similar proposal to acquire common shares of the Company.

Take-over bids may be structured in such a way as to be coercive or discriminatory in effect, or may be initiated at a time when it will be difficult for our board of directors to prepare an adequate response. Such offers may result in shareholders receiving unequal or unfair treatment, or not realizing the full or maximum value of their investment in the Company.

The Rights Plan discourages the making of any such offers by creating the potential of significant dilution to any offeror who does so. This potential is created through the issuance to all shareholders of contingent rights to acquire additional common shares of our company at a significant discount to then prevailing market prices, which could, in certain circumstances, become exercisable by all shareholders other than an offeror and its associates, affiliates and joint actors.

An offeror can avoid that potential by making an offer that either: (i) qualifies as a “Permitted Bid” under the Rights Plan, and therefore meets certain specified conditions (including a minimum deposit period of 105 days) which aim to ensure that all shareholders are treated fairly and equally; or (ii) does not qualify as a “Permitted Bid” but is negotiated with the Company and has been exempted by the Board from the application of the Rights Plan in light of the opportunity to bargain for agreed terms and conditions to the offer that are believed to be in the best interests of shareholders.

Notwithstanding that there have been recent amendments to the current Canadian securities legislation which include, inter alia, an increased minimum deposit period from 35 days to 105 days, the Board

believes that the adoption of the Rights Plan remains in the best interests of the Company and will ensure that all shareholders have an equal opportunity to participate in a change of control transaction.

The following is a summary of the Rights:

Term

Rights Plan will remain in effect until the December 8, 2023 (subject to earlier termination in accordance with its terms).

Issue of Rights

One right (a "**Right**") will be issued by the Company in respect of each common share that is outstanding at the close of business on the date of the Shareholder Rights Plan Agreement (the "**Record Time**"). One Right will also be issued for each additional common share (or other voting share of the Company) issued after the Record Time and prior to the earlier of the Separation Time (as defined below) and the time at which the Rights expire and terminate.

The issuance of the Rights is not dilutive and will not affect reported earnings or cash flow per share unless the Rights separate from the underlying shares in connection with which they were issued and become exercisable or are exercised.

The issuance of the Rights will also not change the manner in which our shareholders currently trade their Shares, and is not intended to interfere with the Company's ability to undertake equity offerings in the future.

Separation Time / Ability to Exercise Rights

The Rights are not exercisable, and are not separable from the shares in connection with which they were issued, until the "Separation Time", being the close of business on the date that is 10 business days after the public announcement of a person becoming an Acquiring Person (as defined below), the commencement of or first public announcement or disclosure of the intent of any person to make a take-over bid that does not qualify as a Permitted Bid (as defined below), the date on which a Permitted Bid ceases to qualify as a Permitted Bid, or such later time as the Board may determine.

Acquiring Person

A person will be considered to be an Acquiring Person for the purposes of the Rights Plan if they, together with their associates, affiliates and joint actors, acquire beneficial ownership (within the meaning of the Rights Plan) of over 20% or more of the outstanding voting shares of the Company other than pursuant to a Permitted Bid or another type of transaction that is excepted under the Rights Plan.

In general terms, a person will not be considered to be an Acquiring Person for the purposes of the Rights Plan if it becomes the holder of 20% or more of the voting shares by reason of: (i) a reduction of the number of voting shares outstanding; (ii) an acquisition under a Permitted Bid (as defined below); (iii) an acquisition in respect of which the board of the Company has waived the application of the Rights Plan; (iv) an acquisition under a dividend or interest reinvestment plan or a stock dividend or similar pro rata event; (v) an acquisition from treasury that does not result in an increase in the person's proportionate shareholdings; or (vi) the exercise of convertible securities that were themselves received by the person pursuant to such a transaction; provided, however, that any subsequent increase by 1% or more in the person's shareholdings (other than pursuant to an exempt transaction) will cause the person to be an Acquiring Person for the purposes of the Rights Plan.

Consequences of a Flip-in Event

A "Flip-in Event" refers to any transaction or event pursuant to which a person becomes an Acquiring Person. Following the occurrence of a Flip-in Event as to which the Board has not waived the application of the Rights Plan, each Right held by:

a) an Acquiring Person (or any of its associates, affiliates or joint actors) on or after the earlier of the Separation Time or the first date of public announcement that an Acquiring Person has become such, shall become null and void; and

b) any other shareholder shall entitle the holder thereof to purchase additional common shares from the Company at a substantial discount to the prevailing market price at the time.

Permitted Bid Requirements

An offeror may make a take-over bid for the Company without becoming an Acquiring Person (and therefore subject to the consequences of a Flip-in Event described above) if it makes a take-over bid (a "**Permitted Bid**") that meets certain requirements, including that the bid must be:

a) made pursuant to a formal take-over bid circular under applicable securities laws;

b) made to all registered holders of voting shares (other than the offeror); and

c) subject to irrevocable and unqualified provisions that:

   a. the bid will remain open for acceptance for at least 105 days from the date of the bid;

   b. the bid will be subject to a minimum tender condition of more than 50% of the voting shares held by independent shareholders;

   c. the bid will be extended for at least 10 business days if more than 50% of the voting shares held by independent shareholders are deposited to the bid (and the offeror shall make a public announcement of that fact); and

   d. any shares deposited can be withdrawn until taken up and paid for.

A competing take-over bid that is made while a Permitted Bid is outstanding and satisfies all of the criteria for Permitted Bid status, except that it may expire on the same date (which may be less than 105 days after such bid is commenced) as the Permitted Bid that is outstanding, will be considered to be a "Permitted Bid" for the purposes of the Rights Plan.

Certificates and Transferability

Before the Separation Time, the Rights will be evidenced by a legend imprinted on share certificates issued after the effective date of the Shareholder Rights Plan Agreement. Although Rights will also be attached to Shares outstanding on the effective date, share certificates issued before the effective date will not (and need not) bear the legend. Shareholders will not be required to return their certificates to be entitled to the benefits of the Rights Plan.

From and after the Separation Time, Rights will be evidenced by separate certificates.

Before the Separation Time, Rights will trade together with, and will not be transferable separately from, the shares in connection with which they were issued. From and after the Separation Time, Rights will be transferable separately from the shares.

Waiver

A potential offeror for the Company that does not wish to make a Permitted Bid can nevertheless negotiate with our board to make a formal take-over bid on terms that our board considers fair to all shareholders, in which case the Board may waive the application of the Rights Plan. Any waiver of the Rights Plan's application in respect of a particular take-over bid will constitute a waiver of the Rights Plan in respect of any other formal take-over bid made while the initial bid is outstanding.

Our board may also waive the application of the Rights Plan in respect of a particular Flip-in Event that has occurred through inadvertence, provided that the Acquiring Person that inadvertently triggered the Flip-in Event thereafter reduces its beneficial holdings below 20% of the outstanding voting shares of the Company within 14 days or such other date as the Board may determine.

With shareholder approval, our board may waive the application of the Rights Plan to any other Flip-in Event prior to its occurrence.

Redemption

Rights are deemed to be redeemed following completion of a Permitted Bid (including a competing Permitted Bid) or any other take-over bid in respect of which the Board has waived the Rights Plan's application.

With requisite approval, our board may also, prior to the occurrence of a Flip-in Event, elect to redeem all (but not less than all) of the then outstanding Rights at a nominal redemption price of $0.000001 per right.

The U.S. Securities and Exchange Commission (SEC) maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is http://www.sec.gov. Our website is https://www.replicel.com.

B. Business Overview and Plan of Operations

Overview

We are a regenerative medicine company focused on developing autologous cell therapies that treat functional cellular deficits. The diseases currently being addressed are chronic tendinosis, skin aging, and androgenetic alopecia (pattern baldness). Each disease state is consistent with a deficit of a specific cell type which we believe is critical to normal function. All treatments under development are based on our innovative technology which utilizes cells isolated from a patient's own healthy hair follicles. These products are built on our proprietary manufacturing platforms and are covered by issued and filed patents as well as trade secrets. We are also developing a programmable injector device and related consumables designed for dermal injections of cells as currently approved other products such as dermal fillers, toxins, enzymes, drugs, and biologics such as fat transfer, platelet rich plasma, antibodies, etc.

The Potential of Autologous Cell Therapy

Our treatments use autologous cell therapy ("**ACT**"), which is one of the most rapidly developing areas of regenerative medicine in the development of novel treatments for numerous human disorders. ACT involves isolating an individual's own cells from harvested tissues and growing more of those cells, or 'expanding' those cells, in controlled conditions in a laboratory. These purified, expanded cells are then reintroduced to the donor to treat a specific condition. The benefits of autologous (derived from the same person) therapy (as compared to allogeneic derived from a different person) includes minimized risks of

systemic immunological (anaphylactic) reactions, bio-incompatibility, and disease transmission. Furthermore, the effects of ACT may be more curative, regenerative, and/or longer lasting than other topical, biologic, pharmacological or surgical interventions.

We have an extensive intellectual property portfolio that covers RCT-01 (our platform for tendon repair); RCS-01 (our platform for skin rejuvenation); RCH-01 (our platform for pattern baldness); and DermaPrecise (our dermal injection device and consumables). Our intellectual property portfolio includes both patents and patent applications which we have developed and own (discussed in more detail below).

RCT-01: Treatment for Chronic Tendinosis

Background

Tendinosis refers to a chronic disease of the tendon. It is a function of an imbalance of tendon breakdown and tendon repair initiated first by an injury which does not heal properly. This leads to cycles of compromised repair and subsequent re-injury until such time as there is no healing and a degenerative process has set in. Typically, this chronic condition is linked to aging, overuse, and to general health. Our company believes that the current standard of care is failing to provide a satisfactory solution to this chronic condition.

Treatment

Our company believes that chronic tendon injuries resulting from sports-related or occupational overuse is a significant unmet medical need. Tendons consist of specialized connective tissues that attach muscles to bones, transmitting force and supporting the musculoskeletal system. When mechanical loads exceed the strength of a tendon or tensile range is lost due to aging, micro-tears of the collagen fibers within tendon occur. Once a tendon is injured, healing can occur intrinsically via tenocyte activation within the injured site or extrinsically via recruitment of collagen-producing cells from the surrounding area. Naturally healed tendon does not return to the same physiological state as 'intact' tendon, even when it supports a return to normal function. Inadequate rest and improper healing often result in re-injury and rupture.

Current treatments manage pain and facilitate healing processes; however, they do not mediate complete recovery and leave patients demobilized for several months during treatment. Our company believes that improved therapeutic strategies are therefore in considerable demand. Our company's fibroblast technology for tendinosis, which we refer to as RCT-01, has been developed over five years of research, experimentation and trials. RCT-01 is a tissue-engineered product made from a procedure using collagen-producing fibroblasts isolated from non-bulbar dermal sheath (NBDS) cells within the hair follicle that are replicated in culture. These fibroblasts are efficient producers of type I collagen and because they are of anagen hair follicle mesenchymal origin, they have the potential to replicate efficiently in culture. The use of these fibroblasts are, therefore, ideal for treating chronic tendon disorders that arise due to either a degeneration of collagen producing cells or a deficit of active collagen producing cells. Because RCT-01 directly provides a source of collagen expressing cells to the site of injury, addressing the underlying cause of tendinosis, the Company believes it has advantages over current treatments such as the use of non-steroidal anti-inflammatory medication or corticosteroids which are limited in efficacy. Another advantage of RCT-01 is the autologous nature of the cellular product, thereby reducing the likelihood of adverse immune reactions upon administration.

Pilot Clinical Trials

Phase 1 human pilot clinical trials were conducted by our collaborative partner, Dr. David Connell, which focused on tendinosis of the Achilles, patellar and lateral elbow (commonly referred to as tennis elbow) using skin tissue derived fibroblasts. In these trials, where 90 patients were injected with cultured, autologous fibroblasts, no adverse events were reported. We have expanded on Dr. Connell's approach by

isolating NBDS fibroblasts from the hair follicle that express upwards of five times the amount of type I collagen than fibroblasts derived from skin tissue as pursued by Dr. Connell.

Phase 1 Clinical Trial

On December 1, 2014, we announced receipt of a "No Objection Letter" from Health Canada in response to its Clinical Trial Application to Health Canada for its phase 1/2 clinical trial to test the safety and efficacy of injections of RCT-01 on patients suffering from chronic Achilles tendinosis. Health Canada's clearance to initiate the trial permitted the participation of subjects who have failed traditional tendon treatments and who are otherwise in good health. Trial design was randomized, double-blinded, placebo-controlled with a treatment-to-placebo ration of 3:1. The mechanics of our treatment involve the extraction of as few as 20 hair follicles from the back of a patient's scalp via a single punch biopsy. NBDS cells are isolated from the hair follicle sheath, replicated in a current Good Manufacturing Practices (cGMP) facility and are then reintroduced under ultrasound guidance directly into the area of damaged tendon. The collagen rich fibroblast cells are expected to initiate and complete the healing of the chronically injured tendon. After injections are performed, subjects will return to the clinic for assessments of safety, function and pain, as well as changes in tendon thickness, echotexture, interstitial tears and neovascularity.

This trial commenced in 2015 and final data was announced Q1 2017. The primary end point of safety was met while secondary end points related to efficacy were also measured at nine-months post-injection of RCT-01. We may pursue further indications of other tendon populations including patellar tendinosis (jumper's knee) and lateral and medial epicondylitis (tennis and golfer's elbow).

Further Clinical Trials

Our company is now designing further clinical testing intended to measure efficacy of RCT-01 in patients with chronic tendinosis. We are currently engaged in a dual-track plan to commercialize RCT-01 in Japan as quickly as possible. Firstly, our company is preparing for a university-sponsored clinical research study of RCT-01 in patients with tendinopathy under that country's ASRM regulations. Successful safety and efficacy data from such a study can be sufficient to support market launch of a product albeit without reimbursement or formal PMDA approval. Secondly, RepliCel has successfully completed the second of three consultations required to obtain clearance from Japan's regulatory agency (the Pharmaceutical and Medical Devices Agency, PMDA) to proceed with a clinical trial of RCT-01 under the PMD Act. This pathway leads to formal PMDA approval and reimbursement. Successful data from such a trial could lead to 'conditional approval' for market launch of RCT-01 in Japan with reimbursement pending data from a larger pivotal trial leading to full non-conditional approval.

In addition to RepliCel's intended conduct of a clinical trial in Japan, RepliCel's partner, YOFOTO (see below), is expected to conduct a clinical trial of RCT-01 in China. This trial is anticipated to be a phase 2 trial designed to answer critical questions related to dosing and treatment frequency.

Collaboration Agreement

We have a Collaboration and Technology Transfer Agreement with YOFOTO. RepliCel and YOFOTO are collaborating on a clinical research program in China, with the goal of increasing the available human clinical data on RCT-01. We anticipate that collaborative technology transfer will continue between the companies as any new improvements to the RCT-01 technology are developed by either party. This agreement gives YOFOTO an exclusive 15-year geographic license to develop and market our RCT-01 tendon regeneration technology in Greater China (China, Hong Kong, Macau, and Taiwan).

Intellectual Property

We have filed patent applications worldwide relating to compositions, methods and uses of NBDS cells for the treatment and repair of tendons. Representative examples of this portfolio include patent applications filed in a variety of select jurisdictions such as Australia, Brazil, Canada, China, Israel, India, Japan, South Korea, Mexico, New Zealand, Russia, Singapore, South Africa, the UAE and the United States (see e.g., US Pub No. 20150374757).

RCS-01: Treatment for Aging and Sun Damaged Skin

Background

Skin is considered one of the most prominent indicators of one's age and health. Maintenance of healthy skin is dictated by intrinsic and extrinsic factors. While intrinsic factors (i.e. chronologic age, sex and genetic makeup) cannot be modified, the adverse effects caused by extrinsic factors such as UV radiation and smoking can be prevented or minimized by lifestyle modification. Although these extrinsic effects can be modulated, the extent to which they can be modified varies significantly among individuals, which largely depends on one's ability to detoxify and repair such damage.

The dermis and epidermis components of the skin lose thickness with age. Solar radiation, particularly UVA, is known to penetrate deep into the dermal layer, damaging fibroblasts, collagen and other fibroblasts expressed proteins, which are the major cellular components of the dermis. Similarly, there are some studies reporting that air pollutants/nanoparticles may also penetrate transepidermally, negatively impacting the dermal layer. The damages caused by external stimuli include DNA strand breaks and mutations, which, if not repaired properly, can lead to cell death. Similarly, oxidative stress caused by smoking leads to not only damages to DNA but also to other cellular components such as proteins and lipids.

Accumulation of damage to cellular proteins and DNA from years of exposure to extrinsic insults can lead to physiological changes of the skin that are irreversible. Such changes are often associated with a reduction in fibroblast cells, disorganization of collagen fibrils and decreased production of collagen, elastin and other glycoproteins that provide structural support and stability to the extra cellular matrix ("**ECM**") network. Such changes to the dermal components are detrimental to maintaining mechanical tensile ability and structural integrity of the skin.

Treatment

Our NBDS-derived fibroblast therapy, which it refers to as RCS-01, provides a promising platform to treat intrinsically and extrinsically aged/damaged skin by providing UV-naïve collagen-producing fibroblast cells directly to the affected area. Our unique manufacturing technology allows for isolation of fibroblasts derived from anagen-hair follicle mesenchymal tissues, which elicit more efficient replication potential in culture. Additionally, our proprietary culture procedures potentiate these cells to maintain plasticity, allowing the cells to adapt to the microenvironment and respond to the mechanical or surrounding stimuli after injection, leading to robust production of type I collagen and elastin and their proper alignment within the tissue.

On September 1, 2015, we announced we had received clearance from the German Competent Authority, the Paul-Ehrlich-Institute, to initiate a Phase 1 clinical trial to investigate the potential safety and efficacy of injecting RCS-01 into subjects with aged or UV-damaged skin. This trial was a randomized, double-blind, placebo controlled study of intradermal injections of RCS-01 designed to assess local safety as well as systemic safety. This trial is now complete with data announced early April 2017 in which the primary endpoint, safety, was successfully established and secondary endpoints related to measurements of the impact on biomarkers related to skin-aging were significantly positive. A summary of the phase 1 clinical study data was published in the peer-reviewed journal, Skin Pharmacol Physiol.

Further Clinical Trials

We are now designing with its partner, YOFOTO (see below), further clinical testing of RCS-01 including a multi-centre phase 2 clinical trial intended to measure efficacy of RCS-01 in a larger population of patients with aging and UV-damaged skin and answer critical questions related to dosing and treatment frequency in China as well a clinical study in Japan.

We are currently engaged with the Japanese regulators in the reviews necessary to obtain regulatory clearance from the PMDA and Ministry of Health, Labour and Welfare (MHLW) to conduct its next clinical study of RCS-01 in Japan under the Act for the Safety of Regenerative Medicine (ASRM) with the intention of launching the product on the market in Japan after successful completion of such a trial. Other preparations required for the conduct of such a clinical study have also been initiated in Japan.

It is intended that all future clinical trials of RCS-01 will be conducted using prototypes of RepliCel's DermaPrecise dermal injector.

Collaboration Agreement

We have a Collaboration and Technology Transfer Agreement with YOFOTO. RepliCel and YOFOTO are collaborating on a clinical research program in China, with the goal of increasing the available human clinical data on RCS-01. We anticipate that collaborative technology transfer will continue between the companies as any new improvements to the RCS-01 technology are developed by either party. This agreement gives YOFOTO an exclusive 15-year geographic license to develop and market our RCS-01 skin rejuvenation technology in the Licensed Territory.

Intellectual Property

We have filed patent applications relating to compositions, methods and uses of NBDS cells for the treatment and repair of aging and UV-damaged skin. Representative examples of this portfolio include patent applications filed in a variety of select jurisdictions such as Australia, Brazil, Canada, China, Europe, Israel, India, Japan, South Korea, Mexico, New Zealand, Singapore, and the United States (see e.g., US Pub No. 20160136206).

Competition

The facial injectables market comprises four product types: botulinum toxin, hyaluronic acid, fillers (particle and polymer fillers, collagen) and stem cells. These injectables can be used in the facial area to correct facial lines and folds and to rejuvenate and add volume to the face. As effective as they may be at treating wrinkles, fillers have a risk of allergic reaction and the formation of tiny bumps under the skin. A bluish skin discoloration known as the Tyndall effect is also possible. The color change can last for several months, but there are treatments available. In very rare cases, skin cells may die if the wrinkle fillers are not used properly. Typically, the wrinkle fillers with longer-lasting effects are the ones more likely to cause side effects.

Fibrocell Sciences has an approved fibroblast therapy for skin aging. Their FDA-approved autologous fibroblast cellular product for improving the appearance of moderate to severe nasolabial fold wrinkles (smile lines) in adults is called LAVIV® (azficel-T). We believe our source cells and manufacturing technology is disruptive both in duration of time to replicate the cells and in the amount of collagen and extracellular matrix expressed.

RCH-01: Treatment for Hair Loss

Background

Androgenetic alopecia (pattern hair loss) can affect up to 70% of men and 40% of women during the course of their lives. Although it is not a disease that causes physical pain, it does cause mental pain. Currently, over $3 billion is spent each year on hair loss treatments that provide limited results. Androgenetic alopecia is largely an inherited disease. It can be inherited by males and females from either the mother's or father's side of the family. Women with this trait develop thinning hair, but do not commonly become completely bald.

Androgenetic alopecia is a process by which hair follicles shrink and produce smaller hairs thus reducing hair density. These miniaturized hair fibers have a shorter growth cycle and are structurally smaller. They produce thinner and shorter hair, which results in less scalp coverage. Eventually these follicles can regress to a state where they produce no hair at all.

Treatment

We believe our dermal sheath cup (DSC) cell therapy offers several advantages over current hair loss solutions. The current gold standard in hair loss treatment is hair transplant surgery which requires the surgical removal of a prominent band of hair-bearing scalp or multiple micro-biopsies from the back of the head. This band of resected tissue or biopsies are then dissected into hair follicles consisting of one to three hairs which are then implanted into balding areas on the scalp. Often a number of similar procedures are required to achieve the desired result and the patient is limited by the number of hairs that can be redistributed. In contrast, RCH-01 involves the extraction of as few as 20 hair follicles from the back of the patient's scalp where healthy cycling hair follicles reside. We believe these cells are responsible for the continued health of the hair follicle and the normal cycling of the hair fiber. DSC cells are isolated from the hair follicles and are then replicated in culture at a cGMP compliant facility utilizing our proprietary cellular replication process, and are then reintroduced back into balding areas on a patient's scalp. The implanted cells are expected to rejuvenate damaged quiescent hair follicles leading to the growth of new healthy hair fibers. The anticipated long-term result of RCH-01 injections is the restoration and maintenance of a patient's hair.

Phase I Clinical Trial (Europe)

The primary protocol objective of the study was to assess the local (at treatment sites) safety profile of injections of autologous DSC cells at nine-months post-injection compared to placebo. Secondary protocol objectives were to assess systemic (overall) safety and efficacy (hair growth at treatment sites) at nine-month post-injection and local safety at 24-months post-injection. The nine-month interim analysis was designed to provide us with safety information to support the regulatory filing for a phase II clinical trial. The nine-month interim analysis results support the continued development of DSC cells for the treatment of androgenetic alopecia. Participants of the phase I clinical trial were followed for five years. The primary objective of the study was to provide long-term safety profile of injections of cultured DSC cells five years after injection compared to control. This objective was met with an announcement of the final data from this trial in Q1 2017. In addition to establishing safety of the product through five years of follow-up, the data announcement also included several successful data measurements related to increased hair density and stabilization of hair loss through the initial 24 months in which these measurements were taken.

Dose-Finding Clinical Study (Japan)

In 2016, a clinical study was launched in Japan as two clinical sites with funding and product manufacturing provided by Shiseido. The study investigated three different one-time injections. This study was completed in 2019 and data from the randomized, double-blinded, placebo-controlled dose-finding clinical study involving 65 patients as published in the Journal for the American Academy of Dermatology

(July 2020). The study was successful in meeting its endpoints and establishing important data regarding which dose was optimal in achieving desired clinical outcomes.

Pivotal Clinical Study (Japan) Testing Repeated Injections

In early 2020, Shiseido publicly communicated its intention to fund a next-phase trial of RCH-01 in Japan investigating a series of injections. In October 2020, Shiseido announced that it had launched such a trial to test the efficacy of 'repeated' injections of RCH-01 in 36 male and female patients with hair loss due to androgenic alopecia. The primary clinical endpoint of the study is to measure changes in hair density twelve months after treatment. In addition to testing the impact of repeated injection (which has not yet been tested), the study protocol also involves the treatment of the entire area of the patient's hair loss (which has also not yet been tested).

We have designed a phase 2 clinical trial intended to measure efficacy of RCH-01 in a larger population of patients with mild to moderate androgenetic alopecia and answer critical questions related to dosing and treatment frequency. We are currently engaged in molecular marker research at the University of British Columbia which is expected to lead to improvements in the product identification, manufacturing, and its clinical effectiveness. We will await data from this research and until clinical-grade prototypes of the DermaPrecise dermal injector are available for use in clinical studies prior to submitting the clinical trial application for a phase 2 study of RCH-01 for regulatory approval.

Collaboration Agreement

We have a Collaboration and Technology Transfer Agreement with Shiseido Company, Limited ("**Shiseido**"), one of the world's largest cosmetic companies. Both companies agreed to work towards establishing a clinical research program in Asia, with the goal of increasing the available human clinical data on RCH-01. The parties agreed to collaborate as any new improvements to the RCH-01 technology were developed by either party. This agreement gave Shiseido an exclusive geographic license to use our RCH-01 hair regeneration technology in Japan, China, South Korea, Taiwan and the ASEAN countries representing a population of approximately 2.1 billion people. In mid-2016, Shiseido alleged RepliCel had breached its obligations in the agreement which Shiseido alleged were potentially terminal to future obligations pursuant to the agreement. We have vigorously denied the existence of such breach and insist on the ongoing validity of the respective obligations on both parties pursuant to the agreement. Despite the allegations of breach and termination, Shiseido funded a hospital-sponsored clinical study of RCH-01 in Japan which is now complete. The clinical data produced in the study is, by agreement, to be made available to our company. We have delivered several demands for the delivery of the data which Shiseido has refused. We have made several other demands for compliance with different obligations in the agreement. Shiseido has refused to comply with all demands. Nonetheless, Shiseido continues to fund clinical testing and development of RCH-01 in Japan such as the Pivotal Clinical Study described above which is still ongoing and not yet completed. In 2021, we actively explored our legal alternatives in the pursuit of a resolution to this agreement. From January 1, 2021 to December 31, 2021, we have taken the following legal and arbitration actions:

We attempted to engage Shiseido in settlement discussions by written letters, without success. RepliCel obtained a legal opinion from a lawyer about proceeding with arbitration. Based on that legal advice, RepliCel consulted with lawyers that specialize in international arbitration and retained a law firm based in Switzerland, called Aceris Law, to represent the Company in the arbitration. RepliCel and Aceris Law filed a Notice of Arbitration with the International Center for Dispute Resolution (ICDR), which is the arbitral tribunal that has jurisdiction over the Agreement between the parties. RepliCel issued a Press Release advising shareholders of this milestone. Shiseido served ReplicCel with its response to the Notice of Arbitration and RepliCel's legal counsel reviewed Shiseido's response with us. Based on Shiseido's response to the Notice of Arbitration, RepliCel made a strategic and legally necessary step of terminating the agreement with Shiseido. A Press Release was issued advising shareholders of this milestone.

From January 1, 2022 – June 27, 2022 the Company has taken the following legal actions as part of the arbitration:

The Company's legal counsel has continued to fulfil the procedural requirements of the ICDR arbitration process, which to-date has included vetting and agreeing to the arbitration panel, making procedural applications, drafting the Statement of Claim and witness statements, corresponding with the panel and opposing counsel regarding the procedural calendar for the full arbitration process, etc.

Intellectual Property

The Company has filed patent applications on the use of hair follicle derived 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), Europe (EP 1509597), the United States (8431400) and Canada (2488057). An additional related patent application is also pending in the United States (USSN 16/032728).

Competition

There are many current hair loss treatments available.

Medical hair restoration consists of a variety of surgical hair restoration treatments designed to reduce baldness. Follicular unit hair transplant surgery is by far the dominant hair restoration treatment and involves the surgical removal of large portions of hair-bearing scalp from the back of the head. These sections of scalp skin are then dissected by hand into smaller hair follicle clusters or even single follicles (follicular units) and transplanted to the balding areas of a patient's scalp.

Follicular unit extraction is another type of hair transplant technique in which a small round punch is used to extract follicular units from a patient's baldness-resistant donor areas. These 1-, 2-, 3- and 4-hair follicular unit grafts are then transplanted into a patient's balding areas. This is a time consuming and tedious procedure and a physician is often limited to transplanting 500 to 600 follicular unit grafts in one day. While the FUE procedure has grown in popularity, largely due to the minimally invasive way in which follicular unit grafts are removed, the standard strip excision method is still the leading hair transplant procedure accounting for 77.5% of surgical hair restoration procedures according to the International Society of Hair Restoration Surgery's 2011 practice census results.

There are only two drug hair restoration treatments approved by the United States Food and Drug Administration are available today: minoxidil and finasteride. Minoxidil is marketed as Rogaine® and finasteride is marketed as Propecia®. These two products can be effective in hair loss prevention and may grow new hair. However, once a patient begins using Rogaine® or Propecia®, he or she must continue to use the products indefinitely. As with any drug, adverse reactions can sometimes occur.

Histogen is developing a hair stimulating complex that is based on the products of newborn cells grown under embryonic conditions. Histogen completed a 26 male-subject clinical trial on its hair stimulating complex. This double-blind, placebo-controlled study evaluated the safety in the clinical application of the product as an injectable for hair growth. No adverse events were seen at any time point, including the one year follow-up. In October 2012, Histogen announced initial results from its Phase 1/2 clinical trial stating that a significant improvement was seen across all targeted hair growth parameters with an 86% responder rate. The double-blind trial was undertaken to further examine the safety and efficacy of intradermal injections of their hair stimulating complex in 56 men with androgenetic alopecia.

Follica Inc. is developing a treatment that stimulates the re-growth of hair follicles by harnessing their natural wound-healing response.

DermaPrecise: Dermal Injector Device

Background

To support our RCH-01 and RCS-01 products, we are developing a second generation dermal injector device. The DermaPrecise Injector, the production design of which is now complete, will be able to deliver programmable volumes of substances into programmed depths to specific layers of the skin in a constant form with minimal pressure or shear stress, ensuring the injected substance is viable and healthy after application. By improving the conditions of substance delivery, our company improves the chances of success in the treatment of the patient. A significant feature of the new device is the incorporation of a cooling element at the injection site, thus removing the need for an anesthetic. This is a significant improvement over current syringe-type devices where an anesthetic is required prior to injection.

We believe that this device will have applications in certain other dermatological procedures requiring injections of specific volumes of material at specific depths and as such, is actively exploring licensing opportunities in these areas. In addition to the programmable variables of volume and depth, the device will also have interchangeable heads for different injection procedures (single and multi-needle). We received our first functioning prototypes for testing in Q3 2017 and, as a result of extensive testing, made several improvements to the components and design to optimize desired functionality through the following 18 months. Final prototypes were signed off on in late 2019 and first run of commercial-grade prototypes were ordered into production in early 2020. This production run was delayed due to COVID-19-related shutdowns across the supply chain. Our company proceeded to produce its first samples of the commercial-grade prototypes in Q2 2021 and is in the early stages of functional and safety testing which is leading to minor design and production iterations based on results. We have yet to sign off on a version of the device which we believe is suitable for serial production. Once this stage of testing and component change is complete, a full manufacturing run units of will be produced for testing over the following months and an application submitted to European regulators for marketing approval. A CE mark will allow our company to commercially launch DermaPrecise in Europe. An FDA approval (such as a 501(k)) will allow our company to commercially launch the DermaPrecise Injector and single-use components in the United States. Either one will allow our company to launch sale of the device and consumables in countries which accept those approvals such as Hong Kong where YOFOTO is already licensed to distribute. The registration of European or US marketing approval in Hong Kong is expected to trigger a $500,000 milestone payment from YOFOTO.

A proprietary needle head has also been developed and will have its own regulatory approval where needed. Only this needle-head will work with the device and will be sold/distributed exclusively by RepliCel and its agents. A novel splash guard has also been developed to work with the device and will have its own regulatory approval where needed. This guard will be sold/distributed exclusively by RepliCel and its agents.

Regulatory approval will also be obtained by RepliCel on the assembled syringe cartridge where needed. This is the only cartridge which will work with the device and will be sold/distributed exclusively by RepliCel and its agents.

Collaboration Agreement

The Company has a Collaboration and Technology Transfer Agreement with YOFOTO. YOFOTO has agreed to work towards commercializing the DermaPrecise device in China. This agreement gives YOFOTO an exclusive 15-year geographic license to commercialize the Company's DermaPrecise dermal injector in technology in the Licensed Territory.

Intellectual Property

We have has also filed numbers patents and patent applications on our dermal injection devices for the delivery of therapeutically useful cells, as well the delivery of various other injectables. Representative granted patents include in Europe (EP 2623146 and EP 2809381), and the United States (US 9616182). Additional related patent applications are also pending in a variety of other jurisdictions such as Australia, Canada, China, Europe, Hong Kong, Israel, Japan, South Korea, New Zealand, Singapore, Taiwan, and the United States (US Pub No. 20180021523).

Competition

Launched in 2009, the Restylane® Injector offers even volume distribution, improved ergonomics over syringes, better depth control and preloaded devices. The injector is preloaded with 200 controlled doses of 10 µl per injection. The injector is used for Restylane Skinboosters Vital and Restylane Skinboosters Vital Light.

The Anteis Injection System was launched in 2010 by Anteis, a Swiss company focused on developing aesthetic dermatology products and ophthalmology devices. They have developed an automated injection device for local injections of Anteis aesthetic products (fillers and rejuvenation products). It features depth control, injection speed and volume control helping to reduce pain, bruising and swelling. A 32 gage needle is used for injections which helps to further reduce pain and the need for an anesthetic before treatment. The device received the Frost & Sullivan 2011 European New Product Innovation Award and the Reddot Design Award in 2010.

Research and Development

The grant-funded research project aimed at manufacturing innovation being conducted at the University of Victoria (UVic) has resumed (with grant extensions). Planning is now underway for the next stage of the project and related grant funding applications. Further detail about the progress of this project will be revealed after appropriate patent protection has been put in place. The teams at UVic and RepliCel are highly encouraged by the data.

The first stage of the research being conducted at the University of British Columbia has been successfully completed and a contract now signed for the second stage to commence immediately. Data from the project to-date points to several cell identity markers of significant interest for use in isolating specific cell populations from the tissue biopsy with potential benefits ranging from optimized manufacturing processes, more consistent product profiles, enhanced product identify assays, stronger patent protections and correlating particular cell sub-populations with the best clinical outcomes.

Further product and process development, aimed at manufacturing improvements and production cost reductions, will be prioritized as funding is allocated.

Investment and U.S. Partnership – Mainpointe Pharmaceuticals, LLC

On January 22, 2021, RepliCel signed three strategic agreements with MainPointe consisting of a Share Purchase Agreement, a Distribution Agreement, and a Royalty Agreement. The strategic investment of $2,700,000 under the Share Purchase Agreement from MainPointe will be spread over an 8-month period. Under the limited term distribution partnership for RepliCel's dermal injector and consumables (the "RepliCel Injector Product Line") in the United States, MainPointe has agreed to pay all costs related to securing FDA approvals to launch the RepliCel Injector Product Line in the U.S. market. The Royalty Participation Agreement provides MainPointe the right to be paid a portion of RepliCel's future royalty revenue stream earned from the sale of RCS-01, RCT-01, and RCH-01 products and any derivatives. A shareholder and director of RepliCel is the Chief Technology Officer of MainPointe. The RepliCel and MainPointe teams are actively collaborating on the US regulatory strategy and filing preparations.

Primary Deal Terms

In consideration for an investment of $2,700,000 and the payment of all costs related to obtaining FDA approval for the Company's dermal injector and consumables, RepliCel has agreed to issue MainPointe up to an aggregate of four (4) million common shares, a right to participate in RepliCel's royalty revenue stream up to a maximum payout of 16 million US dollars, and certain distribution rights of RepliCel Injector Product Line in the United States. The investment will be made as to:

- $500,000 within five (5) days of receipt of conditional approval from the TSX Venture Exchange ($492,092 on February 8, 2021),
- $1,200,000 by February 15, 2021 (received $490,000 on March 23, 2021 and $717,871 on April 23, 2021),
- $700,000 by April 21, 2021 (received $500,528 on August 30, 2021, $199,472 received on November 29, 2021), and
- $300,000 by August 21, 2021 ($298,921 received on November 29, 2021).

The common shares will be priced at the greater of $0.675 or the Discounted Market Price as such term is defined in the Policies of the TSX Venture Exchange.

During the year ended December 31, 2021, the Company received the aggregate consideration of $2,700,000 in five tranches which were accounted for and allocated as follows on initial recognition:

Tranche receipt date	Tranche amount $	Share capital or share subscription $	Royalty payable $	Loss on remeasurement of derivative liability $	Derivative liability $
February 8, 2021	492,092	364,512	346,287	(218,707)	-
March 23, 2021	490,000	272,222	344,815	(127,037)	445,384
April 23, 2021	717,871	378,667	507,376	(168,172)	(163,892)
August 30, 2021	500,528	240,995	352,224	(92,691)	(225,991)
November 30, 2021	498,393	203,049	350,845	(55,501)	(55,501)
Total*	**2,698,884**	**1,459,445**	**1,901,547**	**(662,108)**	**-**

* The difference of $1,116 between the contractual gross proceeds and actual gross proceeds received is attributable to wire fees and foreign exchange translation differences.

The Company issued 3,986,684 common shares to fulfill its obligations pursuant to the Share Purchase Agreement:

Issue Date	Number of common shares
February 8, 2021	729,024
April 23, 2021	1,777,778
December 17, 2021	1,479,882
	3,986,684

Mainpointe is entitled to a royalty under the agreement equal to:

a) 5% of the amounts earned by and paid to the Company from the sale of any of its "NBDS Products" defined as its RCS-01 (NBDS Fibroblast Therapy – Treatment for Aging Skin), RCT-01 (NBDS Fibroblast Therapy – Treatment for Chronic Tendinosis) and any other product which is comprised of the non-bulbar dermal sheath cells patented by the Company, and

b) 20% of the amounts earned by and paid to the Company from the sale of any of its "DSC Products" defined as its RCH-01 (DSC Therapy for Treatment Androgenic Alopecia) and any other product which is comprised of the dermal sheath cup cells patented by the Company.

In consideration for paying all expenses required to obtain regulatory approval for the RepliCel Injector Product Line, the exclusive distribution rights shall commence upon receipt of regulatory approval to launch the RepliCel Injector Product Line in the U.S. market for a period expiring on the earlier of:

a) four (4) years, or

b) when MainPointe has earned USD $2,000,000 in gross income from the sale of the products in the RepliCel Injector Product Line.

The Company will have the right, in its discretion, to buy out this exclusivity right for an amount equal to the net-present value of profit to be earned on USD $2,000,000 in gross income, plus a further amount in gross income that is equal to the regulatory approval costs.

The arrangement with MainPointe was accounted for as a hybrid instrument with two components: royalty payable, which is a financial liability accounted for initially at fair value and subsequently at amortized cost, and an obligation to issue common shares to MainPointe at an agreed price at a future date, which is a derivative liability accounted for at FVTPL.

The strategic agreements were accounted for as a compound financial instrument. The obligation to pay royalties of $16 million USD is classified as a financial liability and measured at amortized cost. Management estimated the present value of future cash flows over the expected term using the effective interest rate. The timing and amount of future cash flows are significant judgments that influence measurement of a financial liability on initial recognition. The effective interest rate should be reassessed at each reporting period end date based on the changes to the future cash flows and their timing. Management has recorded accretion expense of $732,069 for the year ended December 31, 2021 based on an effective interest rate of 57%. The Company incurred no transaction costs to enter into these agreements.

Accretion expense recorded in the year ended December 31, 2021 of $732,069 was based management's estimate that they would pay $16 million USD royalty obligation in 2.34 years ("the Payback Period"), commencing from January 1, 2024. Changes in this estimated Payback Period would result in variability to the Company's reported royalty obligation and annual accretion expense. Should the Payback Period extend beyond the current estimated 2.34 years, the royalty obligation at December 31, 2021, the accretion recorded in the year ended December 31, 2021 and the effective interest rate estimate would change as presented below:

Payback Period (years)	Royalty payable estimate at December 31, 2021 ($)	Accretion expense for December 31, 2021 ($)	Effective interest rate
2.34 (current estimate)	2,649,181	732,069	57%
5.00	2,394,851	480,274	40%
7.50	2,273,368	360,048	31%
10.00	2,203,707	291,122	25%

C. Organizational Structure

We currently have one wholly-owned subsidiary, TrichoScience. TrichoScience is federally incorporated under the *Business Corporations Act* (Canada).

D. Property, Plant and Equipment

Our head office is located at Suite 900 – 570 Granville Street, Vancouver, BC V6C 3P1. We rent this space on a month to month basis at $1,500 per month. Research and development is being conducted under contract with the University of British Columbia by Kevin McElwee, PhD at the UBC Dermatology facilities in Vancouver, British Columbia, Canada and by Dr. Rolf Hoffmann in Germany. We have no current plans to construct or lease dedicated laboratory facilities.

ITEM 4A Unresolved Staff Comments

Not applicable.

ITEM 5 Operating and Financial Review and Prospects

The information in this section is presented in accordance with IFRS for 2021, 2020 and 2019. IFRS differs in certain significant respects from U.S. GAAP. Historical results of operations, percentage relationships and any trends that may be inferred therefrom are not necessarily indicative of the operating results of any future period.

A. Operating Results

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

	Year ended December 31,		Change 2021 to 2020	
	2021 ($)	2020 ($)	Increase/ (Decrease) ($)	Percent Change
Revenue	353,735	353,735	0	0%
Expenses				
Research and development	1,149,170	819,403	329,767	40%
General and administrative	1,505,873	884,704	621,169	70%
Other items	1,772,007	229,913	1,542,094	671%
Total loss	(4,073,315)	(1,580,285)	2,493,031	158%

There was $353,735 (2020 - $353,735) in the License fees revenue from the YOFOTO Licensing and Collaboration Agreement recorded for the year ended December 31, 2021 and 2020.

Research and Development expenses totaled $1,149,170 for the year ended December 31, 2021 compared to $819,403 for the year ended December 31, 2020 representing an increase of $329,767 or 40%. Research and Development expenses were higher during the year ended December 31, 2021 than 2020 due to fact that the Company has restarted multiple research and development programs as a result of more funding from the Investment and U.S. Partnership – signed with Mainpointe. During the year ended December 31, 2021, the Company received $2,698,884 from Mainpointe pursuant to the three strategic agreements with MainPointe consisting of a Share Purchase Agreement, a Distribution Agreement, and a Royalty Agreement. The strategic investment of $2,700,000 under the Share Purchase Agreement from MainPointe will be spread over an 8-month period. Under the limited term distribution partnership for the RepliCel

Injector Product Line in the United States, MainPointe has agreed to pay all costs related to securing FDA approvals to launch the RepliCel Injector Product Line in the U.S. market. The Royalty Participation Agreement provides MainPointe the right to be paid a portion of RepliCel's future royalty revenue stream earned from the sale of RCS-01, RCT-01, and RCH-01 products and any derivatives. A shareholder director of RepliCel is the Chief Technology Officer of MainPointe.

General and administrative expenses for the year ended December 31, 2021 totaled $1,505,873 compared to $884,704, an increase of $621,169 or 70%. The Company, while it obtained financing from Mainpointe, focused its spending on research and development activities and made its best effort to maintain its general and administrative expenses to a minimum. A major driver for the increase in general and administrative expense is the recording of the stock-based compensation in the amount of $471,755 (2020: $3,397) for the stock-based compensation expense incurred during the year ended December 31, 2021. In addition, there were more spending on legal expense $162,756 in the year ended December 30, 2021 compared to $112,235 in the same period in 2020; accounting and auditing fees ($229,720 in the year ended December 31, 2021 compared to $187,000 in the same period in 2020).

The loss from "Other items" for the year ended December 31, 2021 of $1,772,007 compared to $229,913 was primarily due to the recording of a loss on re-measurement of a derivative liability $662,108 (2020: $nil).

Other items include accretion on preference shares ($141,349; 2020: $68,486): accretion on put liability ($219,236; 2020: $176,085); accretion on royalty payable ($732,069; 2020: $nil) and gain on debt settlement ($31,137; 2020; $800).

Total comprehensive loss for the year ended December 31, 2021 was $4,073,315 or $0.13 per share on a basic and diluted basis compared to a net loss of $1,580,285 or $0.06 per share on a basic and diluted basis for the year ended September 30, 2020.

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

	Year ended December 31,		Change 2020 to 2019	
	2020 ($)	2019 ($)	Increase/ (Decrease) ($)	Percent Change
Revenue	353,735	353,735	0	0%
Expenses				
Research and development	819,403	2,196,364	(1,376,961)	(63%)
General and administrative	884,704	1,084,212	(199,508)	(18%)
Other items	229,913	77,318	152,595	197%
Total loss	(1,580,285)	(3,004,159)	1,423,874	(47%)

There was $353,735 (2019 - $353,735) revenue – License fees from operations for the years ended December 31, 2020 and 2019, respectively.

Research and Development expenses totaled $819,403 for the year ended December 31, 2020 compared to $2,196,364 for the year ended December 31, 2019. Research and Development expenses are much lower during the year ended December 31, 2020 than 2019 as a result of the restrictions on spending on research and development due to our capital constraints.

General and administrative expenses for the year ended December 31, 2020 totaled $884,704 compared to $1,084,212 for the year ended December 31, 2019 as the Company made a concentrated effort to maintain its administrative costs such as investor relations while the Company focused on raising money for working capital.

Other items for the year ended December 31, 2020 includes a gain on debt settlement of $800 which resulted from share for debt transactions which occurred in August and October, 2020. It also includes accretion on preference shares in the amount of $68,486, accretion on put liability of $176,085, government grant income of $22,105, interest income of $358 as well as a foreign exchange loss of $8,605.

Total comprehensive loss for the year ended December 31, 2020 was $1,580,285 or $0.06 per share on a basic and diluted basis compared to a net loss of $3,004,159 or $0.12 per share on a basic and diluted basis for the year ended December 31, 2019.

B. Liquidity and Capital Resources

Our company's consolidated financial statements have been prepared on a going concern basis which assumes that our company will continue to realize its assets and discharge its obligations and commitments in the normal course of operations. Since its inception, we had accumulated $5,349,266 in revenue from our business, had accumulated deficit of $42,231,642 since incorporation and expected to incur further losses in the development of its business, which casts substantial doubt about our company's ability to continue as a going concern. At December 31, 2021, we had current liabilities in excess of current assets of $1,280,642 . Additional working capital will be required for research and development along with general and administrative expenses and to further its business plans. Our company is currently pursuing both dilutive and non-dilutive financing it expects will satisfy its working capital requirements going forward. Non-dilutive funding includes grant funding and strategic partnerships involving product licenses to defined geographic markets and for specified applications. Our company's 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 as a going concern.

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

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

Operating Activities

During the year ended December 31, 2021, $2,513,859 was used in net cash from operating activities compared to $756,206 of cash used in operating activities for the year ended December 31, 2020. The increase in cash used for operating activities was a result of primarily increases in both research and development as well as general and administration activities due to increase in financial resources and a renewed focus on research and development programs.

Additional working capital will be required for research and development and general administration expenses and to further our business plans.

Investing Activities

During the year ended December 31, 2021, the net cash provided by investing activities was $Nil (2020: $11,500).

Financing Activities

During the year ended December 31, 2021, $2,700,684 was provided by financing activities compared to $764,139 for the same period in the prior year. The increase in financing activities resulting from the signing of the three strategic agreements signed with Mainpointe Pharmaceuticals, LLC. (see above section "Overall Performance"), common shares issued for debt settlement and accrued dividend on preference shares and increase of royalty payable.

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

Operating Activities

During the year ended December 31, 2020, $765,206 was used in net cash from operating activities compared to $2,781,840 of cash used in operating activities for the ended December 31, 2019. The decrease in cash used by operating activities was a result of primarily decreases in both research and development as well as general and administration activities as a result of cash constraints.

Investing Activities

During the year ended December 31, 2020, the net cash provided by investing activities was $11,500 (2019: $(28,750)).

Financing Activities

During the year ended December 31, 2020, we engaged in a private placement for the sum of $656,840.

Due to the global outbreak of the COVID-19, the federal government of Canada introduced the Canada Emergency Business Account ("CEBA"). CEBA provides an interest-free loan ("CEBA") of $60,000 to eligible businesses. The CEBA loan has an initial term that expires on December 31, 2022 throughout which the CEBA Loan remains interest free. Repayment of $40,000 by December 31, 2022 results in a $20,000 loan forgiveness. If the balance is not paid prior to December 31, 2022, the remaining balance will be converted to a 3-year term loan at 5% annual interest, paid monthly effective January 1, 2023. The full balance must be repaid by no later than December 31, 2025.

On November 12, 2020, the Company borrowed a sum of $47,299 ($37,149 USD) from an individual, bearing interest at a rate of 8% per annum, payable on demand for repayment of the principal amount. Subsequent to the year-ended December 31, 2020, this amount was settled by the issuance of common shares. This individual is an employee at MainPointe Pharmaceuticals LLC.

During the year ended December 31, 2019, the Company has issued preference shares, net of issuance costs, for the amount of $415,998.

Additional working capital will be required for general and administrative expenses and to further our business plans.

Put liability

Under the Collaboration and Technology Transfer Agreement, YOFOTO has the right to put back all of the common shares acquired in the event that it is unable to complete human clinical trials for the licensed technologies for reasons that are outside of YOFOTO's control on or before the date that is 8.5 years from the date of the Collaboration and Technology Transfer Agreement. Although the put option can be exercised independently for each of the three licensed technologies at a rate of 1/3 per licensed technology (RCT-01, RCS-01 and RCI-02), the terms of the Agreement provide that only 2/3s of the shares can be put

back to RepliCel under conditions that RepliCel does not control. As this represents an obligation to transfer cash under circumstances that are not within RepliCel's own control, the put option in connection with 2/3s of the shares issued under the Agreement is recognized as a liability.

The Company has recorded a put liability based on management's estimate of its fair value. The fair value of this put liability was determined by calculating the present value of $3,393,337 repayable in 8.5 years discounted at 23%. $3,393,337 is 2/3s of the private placement proceeds that are subject to the put liability. After its initial recording at $520,426, the put liability will be recorded at amortized cost.

Going Concern

The consolidated financial statements prepared as at December 31, 2021 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, 2021, the Company is in the research stage, has accumulated losses of $42,231,642 since its inception and expects to incur further losses in the development of its business. The Company incurred a consolidated net loss of $4,073,315 during the year ended December 31, 2021. As at date of this report, the Company will require additional funding to continue its research and development activities which may not be available, or available on acceptable terms. This will result in material uncertainties which casts substantial doubt about the Company's ability to 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. Management has a plan in place to address this concern and intends to obtain additional funds by equity financing to the extent there is a shortfall from operations. While the Company is continuing its best efforts to achieve the above plans, there is no assurance that any such activity will generate funds for operations. Management concludes there are material uncertainties relating to events or conditions that may cast significant doubt upon the entity's ability to continue as a going concern.

If the going concern assumptions were not appropriate for these consolidated financial statements, then adjustments would be necessary to the carrying value of assets and liabilities, the reported net loss and the financial position classifications used. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We do not anticipate requiring any additional funds to proceed with our full current plan of operations through December 31, 2021 focused on (1) progressing the DermaPrecise device and consumables toward market launch in the United States and Hong Kong, (2) progressing toward the launch of clinical studies in Japan for RCS-01 and RCT-01, and (3) providing technology transfer, training and other support to be ready for clinical trial launch of RCS-01 and RCT-01 in China with our partner, YOFOTO.

We anticipate that we will require a maximum of approximately $1,200,000 to proceed with our full current plan of operations through December 31, 2022. Accordingly, the Company plans to raise additional capital through the sale of debt or equity securities or through other forms of financing in order to raise the funds necessary to pursue the Company's plan of operations. On March 21, 2022, the Company announced a non-brokered private placement financing (the "**Offering**") of up to 8,333,333 units (each, a "**Unit**") at a price of $0.18 per Unit for gross proceeds of up to $1,500,000. Each Unit consists of one common share of the Company (each, a "**Share**") and one-half of one share purchase warrant (each, a "**Warrant**"). Each whole Warrant entitles the holder thereof to purchase one additional Share of the Company at a price of $0.40 per Share for a period of three years from closing of the Offering. The Offering is anticipated to close in two tranches, the first tranche to be completed quickly and the second tranche to be completed within ninety (90) days, subject to the approval of the Exchange. On May 4, 2022, the Company closed a first tranche of the Offering pursuant to which it sold an aggregate of 4,218,470 Units for gross proceeds of $759,324.60. On May 6, 2022, the Company announced that the Exchange granted a thirty (30) day extension to the

Company for completion of its Offering. On June 7, 2022, the Company announced that the Exchange granted a further thirty (30) day extension to the Company for completion of its Offering. There is no assurance that it will be successful in completing this or any financings. The Company is currently pursuing both dilutive and non-dilutive financing it expects will satisfy its working capital requirements going forward. Non-dilutive funding includes grant funding and strategic partnerships involving product licenses to defined geographic markets and for specified applications. There can be no assurance that additional financing will be available when needed or, if available, on commercially reasonable terms. If the Company is not able to obtain additional financing on a timely basis, it may not be able to pursue its plan of operations or meet its obligations as they come due, and may be forced to scale down, or perhaps even cease, business operations. The Company is currently actively engaged in several due diligence reviews and partnership discussions. All such discussions involve the injection of new capital into the Company.

Cash on hand and cash equivalents are currently the Company's only source of liquidity. The Company does not have any lending arrangements in place with banking or financial institutions and the Company does not know whether it will be able to secure such funding arrangements in the near future.

Critical Accounting Policies and Estimates

RepliCel makes estimates and assumptions about the future that affect the reported amounts of assets and liabilities. Estimates and judgments are continually evaluated based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. In the future, actual experience may differ from these estimates and assumptions.

The effect of a change in an accounting estimate is recognized prospectively by including it in comprehensive income in the period of the change, if the change affects that period only, or in the period of the change and future periods, if the change affects both.

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 12(e) of the Financial Statements.

Revenue Recognition

The Company applies the five-step model to contracts when it is probable that the Company will collect the consideration that it is entitled to in exchange for the goods and services transferred to the customer. For collaborative arrangements that fall within the scope of IFRS 15, the Company applies the revenue recognition model to part or all of the arrangement, when deemed appropriate. At contract inception, the Company assesses the goods or services promised within each contract that falls under the scope of IFRS 15, to identify distinct performance obligations. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when or as the performance obligation is satisfied. Significant judgment is involved in determining whether the transaction price allocated to the license fee should be recognized over the collaboration period or at the inception of the contract and the time period over which revenue is to be recognized.

In the Share Purchase Agreement with YOFOTO, we issued shares to YOFOTO which had an identifiable market value at the time the agreement was signed. The price YOFOTO paid for these shares, plus associated share-purchase warrants (which have now expired), was over the then-market price for these shares. In addition to the Share Purchase Agreement, we also entered into a Licensing and Collaboration Agreement (See Note 8 – Licensing and Collaboration Agreement – YOFOTO (China) Health Industry Co. Ltd.) with YOFOTO in which we granted to YOFOTO product licenses and a put option. Our company's methodology used in assessing the value assigned to the put options, licenses, and purchase warrants granted in these agreements is outlined in Note 8 of the Financial Statements.

Preference Shares

RepliCel makes estimates on the issuance of preference shares which are compound instruments that consist of both an equity and a liability component. Due to required redemption RepliCel preference shares were classified as liability. Management is required to make estimates to determine the fair value of the components of the preference share issuance at the date that it is issued. The Company also needs to make estimates on the effective interest on preference shares to calculate amounts payable on redemption and inclusive of dividends.

Put Liability

Replicel made estimates on the issuance of the put liability disclosed in Note 7 of the Financial Statements. The put liability is a financial liability recorded initially at the present value of the potential exercise price of the put. Management is required to make an estimate to determine the effective interest rate to appropriately discount the potential exercise price over the term of the put liability to its fair value at issuance. Subsequent to its initial recording, the put liability is accreted up to the full face value at the end of the term of the agreement.

Derivative Liability

Replicel made estimates in determining the fair value of the derivative liability. The obligation to issue common shares to Mainpointe at an agreed price at a future date is a derivative liability accounted for at FVTPL. The fair value of this derivative liability has been estimated based on the difference between the market value of the Company's shares to be issued under this arrangement at the reporting date compared to the agreed price of such shares. The derivative liability is fair valued at each measurement date until its settlement.

Royalty Payable

Replicel makes estimates of the expected timing of the payment of royalties as part of the three strategic agreements signed with Mainpointe Pharmaceuticals LLC. Under this royalty arrangement, RepliCel has provided Mainepointe with a right to participate in RepliCel's royalty revenue stream up to a maximum payout of $16 million US and certain distribution rights of RepliCel Injector Product Line in the United States. Management is required to make an estimate to determine the timing of the Company's royalty revenue stream up to $16 million US.

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 will recognize 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.

C. Research and Development, Patents and Licenses etc.

Research and development expenses totaled $1,149,170 for the year ended December 31, 2021 compared to $819,403 for the year ended December 31, 2020. The increase during the year ended December 31, 2021 compared to 2020 is due to the fact that the Company has restarted multiple research and development programs as a result of more funding from the Investment and U.S. Partnership with Mainpointe.

D. Trend Information

We do not currently know of any trends, uncertainties, demands, commitments or events that are reasonably likely to have a material effect on our net sales or revenue, income from continuing operations, profitability, liquidity or capital resources, or that would cause reported financial information not necessarily to be indicative of future operating results or financial condition.

ITEM 6 Directors, Senior Management and Employees

A. Directors and Senior Management

There are no family relationships between any of the directors, senior management or employees. We have no arrangement or understanding with any major shareholders or other persons pursuant to which any of our directors or officers was selected as a director or officer. The following table sets out information regarding our directors and senior management, and any employees upon whose work our company is dependent.

Name and Age	Present Position with our Company	Age	Date of Commencement with our Company
Lee Buckler[2]	Director, Chief Executive Officer and President Corporate Secretary	55	January 1, 2016 June 13, 2016
Simon Ma	Chief Financial Officer	57	June 13, 2016
Dr. Rolf Hoffmann	Chief Medical Officer	60	December 22, 2010
Dr. Kevin McElwee	Chief Scientific Officer	51	December 22, 2010
David Hall [1][2]	Director Chairman of the Board	68	December 22, 2010 January 1, 2016
Peter Lewis[1][2]	Director	66	May 27, 2011
Andrew Schutte[2]	Director	32	December 14, 2018
Peter Lowry[1][2]	Director	58	December 14, 2018
Gary Boddington	Director	55	June 1, 2021

(1) Member of the audit committee and nominating, compensation and corporate governance committee.
(2) Member of the operations committee.

Lee Buckler, B.Ed, LLB – Chief Executive Officer, President, Corporate Secretary and Director

Mr. Buckler has been an executive in the cell therapy sector since 2000 beginning with Malachite Management in the Stem Cell Technologies group of companies. Most recently he was the Managing Director of Cell Therapy Group, a firm he formed in 2008 where he did business development consulting for companies and organizations in or interested in the cell therapy sector. His work included deal-targeting, transactions, market intelligence, competitive analyses, strategic assessments, and market profile planning for companies ranging from top-tier multinationals to start-ups. Mr. Buckler has a Bachelor's Degree in Education and a Law Degree. After law school, he did a one year judicial clerkship with the B.C. Supreme Court and was a practicing attorney for three years at Edwards, Kenny & Bray. Mr. Buckler served six years as the Executive Director of the International Society for Cellular Therapy and just over two years as Director of Business Development for Progenitor Cell Therapy. He is on the editorial advisory boards of the journal Regenerative Medicine and the BioProcess International magazine and is a member of the Alliance for Regenerative Medicine's Communications and Education Committee. He co-founded Cell Therapy News, founded Cell Therapy Blog, founded and continues to manage the LinkedIn Cell Therapy Industry Group, and is an active industry commentator in publications and in social media.

Simon Ma – CFO

Simon Ma is a Chartered Professional Accountant and has extensive experience with private companies as well as public companies in the resource sector. He graduated from the University of British Columbia in 1987 and obtained a degree of Bachelor of Arts in Economics after which he worked in the industry as a Controller to 1990. He started articling in 1990 and qualified as a Chartered Accountant in 1994. Simon Ma has been a sole public practitioner since 1997 and is practicing under the name of Simon S. Ma Corporation. He is concurrently serving as chief financial officer of several public companies listed on the TSX Venture Exchange or Canadian Securities Exchange. These companies include North American Potash Inc., Gem International Resources Inc., E-Energy Ventures Inc., United Coal Holdings Ltd., Quanta Resources Inc., and DGS Minerals Inc. Simon Ma has been the chief financial officer of our company from October 17, 2018 and was the director of finance for our company from June of 2016 to June 22, 2020.

Prof. Rolf Hoffmann, MD – Chief Medical Officer

Dr. Hoffmann is a European-based clinical researcher who has spent decades researching the fields of pattern hair loss, alopecia areata, endocrinology of the hair follicle and hair follicle morphogenesis. Together with Dr. McElwee, he is the applicant of a landmark patent on the use of hair follicle cup cells and their use in hair diseases. He is working clinically in his private practice, as a teaching professor in the Department of Dermatology for Marburg University, Germany, as well as a researcher on histopathogically on hair diseases, where he has published chapters in text books. Dr. Hoffmann has participated in dozens of clinical hair studies and consulted for a variety of large companies on hair matters. He is the inventor of TrichoScan®, a computerized technique to measure hair growth. Since then, he has run a successful privately owned company to market the device for dermatologists and to offer it as a service for clinical trials.

Dr. Kevin McElwee, PhD – Chief Scientific Officer

Dr. McElwee is an Associate Professor in the Department of Dermatology and Skin Health at the University of British Columbia, and Director of the Hair Research Laboratory in the Vancouver Coastal Health Research Institute at Vancouver General Hospital (VGH). His research is funded by competitive grants awarded by multiple organizations including the Canadian Institute for Health Research (the equivalent of the National Institute for Health in the USA). Dr. McElwee is one of only a small group of research scientists worldwide who studies hair biology and associated diseases. He has worked as a hair research scientist for 12 years and has published over 70 medical journal articles, research abstracts and academic book chapters on hair loss research. Dr. McElwee received his Bachelor of Science degree from the University of Aberdeen, Scotland and his PhD from the University of Dundee, Scotland. Postdoctoral

training included three years at the Jackson Laboratory in Maine, USA and four years at the University of Marburg, Germany, studying various hair loss diseases

David Hall – Chairman of the Board and Director

Mr. Hall has more than two decades of experience in the life sciences industry. From 1994 through 2008, he served in roles as Chief Financial Officer, Chief Compliance Officer and Senior Vice President of Government & Community Relations for Angiotech Pharmaceuticals Inc. He also acted as the Corporate Secretary and Treasurer of Angiotech. Mr. Hall is highly committed to governmental policy issues related to the biotech industry. He is a past Chairman of Life Sciences BC. He has served as the Chairman of the Biotech Industry Advisory Committee to the BC Competition Council and as a member of the BC Task Force on PharmaCare. Mr. Hall is also a past member of the University of British Columbia's Tech Equity Investment Committee, a director and Chairman of the Audit Committee of GLG Lifetech Corporation, as well as Advantage BC. Mr. Hall currently serves as a director of Avricore Health Inc.

Peter Lewis, CA – Director

Mr. Lewis is a partner with Lewis and Company, a firm specializing in taxation law since 1993. His areas of expertise include tax planning, acquisitions and divestitures, reorganizations and estate planning. He is a sought after educator, having taught and presented taxation courses at the Institute of Chartered Professional Accountants of British Columbia and the Canadian Tax Foundation.

Peter Lowry – Director

Mr. Lowry is an experienced executive having held a number of executive and governance roles. As a director and consultant he is focused on business strategy and improvement for private sector companies and government agencies including healthcare. His consulting and management roles include Managing one of the largest Cardiac services in Australasia and leading the development and operational management of a number of orthopaedic joint-ventures that leverage intellectual property across a range of clinical and commercial settings. Mr. Lowry graduated with a Bachelor of Management Studies from the University of Waikato (4-year degree), is a Chartered Accountant in New Zealand, and has completed the Executive Program of the Darden Business School, University of Virginia. Mr. Lowry is a long term shareholder in the Company having acquired shares through a number of the capital raisings during this time. In addition, he has provided significant advice to the recently completed share placement and licensing deal.

Andrew Schutte – Director

Andrew Schutte has been the Chief Technology Officer with MainPointe Pharmaceuticals from November 2016 to present. Mr. Schutte was a VBA Programmer with Gerimed Inc. from February 2012 to February 2016, a US based company which provides independent pharmacies servicing long-term care and home care patients access to cost effective solutions. He is the President and sole proprietor of two oil related LLCs, Nolan Olbohrung LLC and Valence Oil LLC.

Gary Boddington – Director

Mr. Boddington has been the Chief Executive Officer of PlayWize Technology Inc., a private information technology and services company specializing in products empowering the sporting ecosystem, since 2017. He is experienced in founding and leading global companies, exploring new markets, launching new products, and raising capital. Mr. Boddington has worked with founders, shareholders and boards of directors in public and private entities. He founded a business intelligence company which was acquired by a FTSE 100 company, was an early team member of Canada's first listed blockchain company which did pioneering pilot projects with major brands globally, and most recently was an independent director of a Vancouver fintech company which had a $100million+ exit.

B. Compensation

The following table sets out the compensation provided to our directors and senior management for performance of their duties during the fiscal year ended December 31, 2021:

SUMMARY COMPENSATION TABLE									
					Non-equity incentive compensation plan compensation ($)				
Name and principal position	Year	Salary ($)	Share-based awards ($)	Option-based awards[1] ($)	Annual incentive plans	Long-term incentive plans	Pension value ($)	All other Compen-sation ($)	Total Compen-sation ($)
Lee Buckler CEO, President, Corporate Secretary and Director	2021	240,000	Nil	59,275	Nil	Nil	Nil	Nil	299,275
Simon Ma Chief Financial Officer	2021	Nil	Nil	12,349	Nil	Nil	Nil	96,000	108,349
Dr. Rolf Hoffmann Chief Medical Officer	2021	Nil	Nil	18,524	Nil	Nil	Nil	Nil	18,524
Dr. Kevin McElwee Chief Scientific Officer Founder of TrichoScience	2021	Nil	Nil	49,396	Nil	Nil	Nil	Nil	49,396
David Hall Chairman and Director	2021	Nil	Nil	37,047	Nil	Nil	Nil	21,750	58,797
Peter Lewis Director	2021	Nil	Nil	16,587	Nil	Nil	Nil	15,500	34,024
Peter Lowry Director	2021	Nil	Nil	97,223	Nil	Nil	Nil	15,250	112,473
Andrew Schutte Director	2021	Nil	Nil	105,324	Nil	Nil	Nil	14,500	119,824
Gary Boddington Director	2021	Nil	Nil	37,048	Nil	Nil	Nil	8,083	45,131

(1) The valuation of option-based awards is based on the fair value of the options at the time of the grant is based on the Black Scholes model and includes the following assumptions; weighted average risk free rate, weighted average expected life, expected volatility and dividend yield. For options that vest, only the vested options are valued. Details of options granted during 2014 are included in the table below under the heading "Share Ownership - Stock Option Plan".

Pension, Retirement or Similar Benefits

We do not provide pension, retirement or similar benefits to directors and executive officers. No funds were set aside or accrued by our company during the fiscal year ended December 31, 2020 to provide pension, retirement or similar benefits to our directors or officers pursuant to any existing plan provided or contributed to by us or our subsidiaries.

C. Board Practices

Our directors are re-elected at the annual general meeting of our shareholders and our officers are re-appointed by our board of directors at a directors' meeting following the annual general meeting. Each of our current directors and officers will hold their respective office until their successor is elected or appointed, unless such office is earlier vacated under any of the relevant provisions of our articles or the *Business Corporations Act* (British Columbia).

The following sets out terms of the employment, director's services and consulting agreements with Lee Buckler, David Hall and Simon Ma.

Employment Agreement: Lee Buckler

Pursuant to an employment agreement, effective as of January 1, 2016, between Lee Buckler and the Company, Mr. Buckler serves as President, Chief Executive Officer and Corporate Secretary of the Company and President and Chief Executive Officer of TrichoScience for a base salary of $240,000 per annum. Under the agreement, Mr. Buckler will be eligible to participate in a bonus plan as and when established by the Company, which currently is anticipated to provide for bonuses based on a target bonus of 100 percent of the base salary earned by Mr. Buckler during each fiscal year in accordance with milestones to be established by the Board. Mr. Buckler was entitled to receive a retention bonus where the Company will pay $45,000 on the earlier of April 30, 2016 or 30 days after the Company completes an equity financing with minimum gross proceeds of $3,000,000. Mr. Buckler received the $45,000 bonus during the year ended December 31, 2016. Mr. Buckler may also be eligible to receive additional stock option grants or awards under other equity based incentive plans from time to time. If Mr. Buckler's employment is terminated for any reason other than for just cause, the Company will pay Mr. Buckler: any unpaid base salary earned but unpaid; a lump sum amount as severance compensation equal to three months of base salary for the first year of employment or a lump sum amount as severance compensation equal to twelve months of base salary after the first year of employment plus an additional two months of base salary for each full year of employment after the initial year up to a maximum of eighteen months of base salary, and a lump sum payment as compensation for the loss of Mr. Buckler's entitlement to benefits up to a maximum of $100,000.

Director's Services Agreement: David Hall

Pursuant to a director's services agreement dated January 1, 2016, Mr. Hall serves as the Chairman and a member of the Board. In consideration, the Company has agreed to pay an annual retainer of $15,000 to serve as the Chairman, an annual retainer of $10,000 to serve as a director, a fee of $1,000 per Board meeting, a fee of $1,000 per Audit Committee meeting and $1,000 per Nominating, Compensation and Corporate Governance Committee meeting.

Consulting Agreement: Simon Ma

The Company entered into a consulting agreement dated effective October 17, 2018 with Simon S. Ma Corporation, a company wholly owned by Simon Ma, the CFO of the Company, pursuant to which Simon Ma provides the Company with financial and accounting services. The Company has agreed to pay Simon S. Ma Corporation a consulting fee of $8,000 plus GST per month for the term of the consulting agreement, being twelve months after the effective date. The consulting agreement is automatically renewable for

twelve months unless either party gives thirty days' written notice to the other of its intention not to renew the consulting agreement. The consulting agreement may be terminated before its expiry by either party at any time without cause by giving notice to the other party at least thirty days prior to the termination and by the Company, without notice, immediately upon the occurrence of any default by Mr. Ma.

Audit Committee

Our audit committee is comprised of Peter Lewis, David Hall, and Peter Lowry. The audit committee reviews and approves the scope of the audit procedures employed by our independent auditors, reviews the results of the auditor's examination, the scope of audits, the auditor's opinion on the adequacy of internal controls and quality of financial reporting and our accounting and reporting principles, policies and practices, as well as our accounting, financial and operating controls. The audit committee also reports to the board of directors with respect to such matters and recommends the selection of independent auditors. Before financial statements that are to be submitted to the shareholders at an annual general meeting are considered by the board of directors, such financial statements are submitted to the audit committee for review, following which the report of the audit committee on the financial statements is submitted to the board of directors.

Nominating, Compensation and Corporate Governance Committee

Our nominating, compensation and corporate governance committee is comprised of Peter Lewis, David Hall and Peter Lowry. The purpose of the nominating, compensation and corporate governance committee is to identify individuals qualified to become directors on our board of directors or any of its committees, consistent with criteria approved by our board of directors, and to select, or to recommend that our board of directors select, such director nominees, whether at the next annual meeting of the shareholders or otherwise. The committee also periodically evaluates the qualifications and independence of each director on our board of directors or its various committees and recommend to our board of directors, as the committee may deem appropriate, any recommended changes in the composition of our board of directors or any of its committees. The committee also develops and recommends to our board of directors corporate governance principles applicable to our company and annually assess the performance of our board of directors.

Operations Committee

Our operations committee is comprised of Lee Buckler, David Hall, Peter Lowry and Andrew Schutte. The purpose of the operations committee is to advise management of our company on all operational aspects of our company on a regular basis and report to the Board.

D. Employees

As of December 31, 2021, we had one full time employee and one contractor, the majority of which are located in Vancouver, British Columbia. These employees and contractors have expertise in biotechnology management, clinical trials, financial management and communications.

E. Share Ownership

Our directors, senior management and key employees beneficially own, directly or indirectly, the number of common shares set out in the table below:

Name and Office Held	Number of Common Shares[1]	Percentage of Common Shares[2]	Number of Preferred Shares[3]	Percentage of Preferred Shares[4]
Lee Buckler CEO, President, Corporate Secretary and Director	6,808	*	-	-
Simon Ma Chief Financial Officer	7,460	*	-	-
Dr. Rolf Hoffmann Chief Medical Officer	489,572	1.15%	-	-
Dr. Kevin McElwee Chief Scientific Officer	658,412	1.54%	-	-
David Hall Chairman and Director	435,910[5]	*	37,500	3.44%
Peter Lewis Director	212,198[6]	*	37,500[7]	3.44%
Peter Lowry Director	798,582	1.87%	-	-
Andrew Schutte Director	6,079,604	14.22%	250,000	22.95%
Gary Boddington	Nil	-	-	-

* Less than 1%.

(1) Does not include options to acquire common shares of our company held by the persons set forth in the table. For a description of options held by the persons set forth in the table above, see below under the heading "Stock Option Plan".

(2) Based on 42,749,565 common shares issued and outstanding as of June 27, 2022.

(3) The preferred shares are subject to the special rights and restrictions as described in Item 10 below.

(4) Based on 1,089,125 preferred shares issued and outstanding as of June 27, 2022.

(5) Does not include 100,000 common shares held by Mr. Hall's wife over which Mr. Hall does not exercise control or direction.

(6) 207,843 of these common shares are held directly and 4,355 common shares are held in the name of Peter W. Lewis Inc., a private company controlled by Peter Lewis.

(6) These preferred shares are held in the name of Peter W. Lewis Inc., a private company controlled by Peter Lewis.

Stock Option Plan

On April 17, 2014, our board of directors approved the adoption of our 2014 Stock Option Plan (the "**2014 Plan**"), which was ratified by our shareholders on December 8, 2020.

Under the 2014 Plan the number of common shares reserved for issuance pursuant to the exercise of options granted under the 2014 Plan cannot exceed 10% of the total number of issued common shares of our company (calculated on a non-diluted basis) at the time an option is granted. The purpose of the 2014 Plan is to advance the interests of our company and its shareholders by attracting, retaining and motivating selected directors, officers, employees and consultants of our company of high caliber and potential and to encourage and enable such persons to acquire an ownership interest in our company.

The following information is intended as a brief description of the 2014 Plan:

1. Our board of directors (which for the purposes of the 2014 Plan includes any committee setup by our board of directors to govern the stock options) shall establish the exercise price at the time each option is granted, subject to the following conditions:

    (a) if the common shares are listed on the TSX Venture Exchange, the exercise price will not be less than the minimum prevailing price permitted by the policies of the TSX Venture Exchange;

    (b) if the common shares are not listed, posted and trading on any stock exchange or bulletin board, then the exercise price will be determined by our board of directors at the time of granting;

    (c) if an option is granted within 90 days of a distribution by a prospectus by our company, the exercise price will not be less than the price that is the greater of the minimum prevailing price permitted by the TSX Venture Exchange policies and the per share price paid by public investors for common shares acquired under the distribution by the prospectus, with the 90 day period beginning on the date a final receipt is issued for the prospectus; and

    (d) in all other cases, the exercise price shall be determined in accordance with the rules and regulations of any applicable regulatory bodies.

2. Upon expiry of an option, or in the event an option is otherwise terminated for any reason, without having been exercised in full, the number of common shares in respect of the expired or terminated option shall again be available for an option grant under the 2014 Plan.

3. All options granted under the 2014 Plan may not have an expiry date exceeding ten years from the date on which the option is granted.

4. Options granted to any one individual in any 12 month period cannot exceed more than 5% of the issued common shares of our company, unless our company has obtained disinterested shareholder approval.

5. Options granted to any one consultant in any 12 month period cannot exceed more than 2% of the issued common shares of our company, without the prior consent of the TSX Venture Exchange.

6. Options granted to all persons, in aggregate, conducting investor relations activities in any 12 month period cannot exceed more than 2% of the issued common shares, without the prior consent of the Exchange.

7. Options issued to optionees performing investor relations activities will vest in stages over 12 months with no more than one quarter of the options vesting in any three month period.

8. If a director, employee or consultant of our company is terminated for cause or resigns, then any option granted to such option holder will terminate immediately upon such option holder ceasing to be a director, employee, or consultant by reason of termination for cause or by resignation.

9. If an option holder ceases to be a director, employee or consultant of our company (other than by reason of death, disability, resignation or termination of services for cause), as the case may be, then any option granted to such option holder that had vested and was exercisable on the date of termination will expire on the earlier of the expiry date and the date that is 90 days following the date that such option holder ceases to be a director, employee or service provider of our company.

10. If an option holder dies, the option holder's lawful personal representatives, heirs or executors may exercise any option granted to such option holder that had vested and was exercisable on the date of death until the earlier of the expiry date and one year after the date of death of such option holder.

11. If an option holder ceases to be a director, employee or consultant as a result of a disability, such option holder may exercise any option granted to such option holder that had vested and was exercisable on the date of disability until the earlier of the expiry date and 90 days after the date of disability.

12. Options granted to directors, employees or consultants will vest when granted unless determined by our board of directors on a case by case basis, other than options granted to consultants performing investor relations activities, which will vest in stages over 12 months with no more than one quarter of the options vesting in any three month period.

13. Options granted under the 2014 Plan are not assignable or transferable by an option holder.

14. Our board of directors may, from time to time, subject to regulatory or shareholder approval, if required under the policies of the Exchange, amend or revise the terms of the 2014 Plan.

The 2014 Plan provides that other terms and conditions may be attached to a particular stock option at the discretion of our board of directors.

The following table sets forth the amount and terms of options to acquire common shares of our company we have granted to our directors, senior management and key employees:

Name and Office Held	Number of Options	Date of Grant	Exercise Price	Expiry Date
Lee Buckler CEO, President, Corporate Secretary and Director	400,000	July 30, 2018	$0.43	July 30, 2023
	240,000	June 15, 2021	$0.40	June 15, 2026
Simon Ma Chief Financial Officer	50,000	July 30, 2018	$0.43	July 30, 2023
	50,000	June 15, 2021	$0.40	June 15, 2026
Dr. Rolf Hoffmann Chief Medical Officer	75,000	July 30, 2018	$0.43	July 30, 2023
	75,000	June 15, 2021	$0.40	June 15, 2026
Dr. Kevin McElwee Chief Scientific Officer	75,000	July 30, 2018	$0.43	July 30, 2023
	200,000	June 15, 2021	$0.40	June 15, 2026
David Hall Director	100,000	July 30, 2018	$0.43	July 30, 2023
	150,000	June 15, 2021	$0.40	June 15, 2026
Peter Lewis Director	50,000	July 30, 2018	$0.43	July 30, 2023
	75,000	June 15, 2021	$0.40	June 15, 2026
Peter Lowry Director	80,000	July 30, 2018	$0.43	July 30, 2023
	300,000	June 15, 2021	$0.40	June 15, 2026
Andrew Schutte	30,000	July 30, 2018	$0.43	July 30, 2023
	325,000	June 15, 2021	$0.40	June 15, 2026
Gary Boddington	150,000	June 15, 2021	$0.40	June 15, 2026

ITEM 7 Major Shareholders and Related Party Transactions

A. Major Shareholders

Common Shares

The following table sets forth, as of June 27, 2022, the only persons known to us to be the beneficial owner of more than five (5%) of our common shares:

Name of Shareholder	No. of Common Shares Owned	Percentage of Outstanding Common Shares[1]
Andrew Schutte	8,351,535[2]	18.55%[3]
YOFOTO (China) Health Industry Co.	5,357,900	12.53%
Jamie MacKay	6,528,000[4]	14.53%[5]
MainPointe Pharmaceuticals LLC	3,986,684	9.33%

(1) Based on 42,749,565 common shares issued and outstanding as at June 27, 2022.

(2) Includes: (i) 6,079,604 Shares held directly by Mr. Schutte, (ii) 303,030 common shares issued on the conversion of Class A Preference Shares at a conversion price of $0.33 per Class A Preference Share held directly by Mr. Schutte, (iii) 355,000 options held directly by Mr. Schutte, each of which is exercisable into one common share, of which 30,000 are exercisable at a price of $0.43 per common share until July 30, 2023 and 325,000 are exercisable at a price of $0.40 until June 14, 2026 and (iv) 1,613,901 warrants, each of which is exercisable into one common share, of which 562,750 are exercisable at a price of $0.36 per common share until July 15, 2023 and 1,051,151 are exercisable at a price of $0.40 per common share until May 4, 2025.

(3) Based on 45,021,496 common shares outstanding on a partially-diluted basis comprised of: (i) 42,749,565 issued and outstanding as of June 27, 2022, (ii) 303,030 common shares that may be issuable on conversion of Class A Preference Shares, (iii) 355,000 common shares that may be issuable on exercise of stock options and (iv) 1,613,901 common shares that may be issuable on exercise of warrants, all held directly by Andrew Schutte.

(4) Includes: (i) 4,352,000 Shares held directly by Mr. MacKay and (ii) 2,176,000 warrants, each of which is exercisable into one common share, of which 1,117,917 are exercisable at a price of $0.36 per common share until July 15, 2023 and 1,058,083 are exercisable at a price of $0.40 per common share until May 4, 2025.

(5) Based on 44,925,565 common shares outstanding on a partially-diluted basis comprised of: (i) 42,749,565 issued and outstanding as of June 27, 2022 and (ii) 2,176,000 common shares that may be issuable on exercise of warrants, held directly by Jamie MacKay.

The voting rights of our major shareholders do not differ from the voting rights of holders of our common shares who are not major shareholders.

Class A Preference Shares

The following table sets forth, as of June 27, 2022, the only persons known to us to be the beneficial owner of more than five (5%) of our Class A Preference Shares:

Name of Shareholder	No. of Class A Preference Shares Owned	Percentage of Outstanding Class A Preference Shares(1)
Andrew Schutte	250,000	22.95%

(6) Based on 1,089,125 Class A Preference Shares issued and outstanding as at June 27, 2022.

The following table sets forth the number of our issued and outstanding common shares and Class A Preference Shares that are held by record holders in the United States:

Class	Number of Shareholders	Total Securities Held	Percentage of Securities
Common Shares	20	14,609,252	34.17%(1)
Class A Preference Shares	1	250,000	22.95%(2)

(1) Based on 42,749,565 common shares issued and outstanding as of June 27, 2022.
(2) Based on 1,089,125 Class A Preference Shares issued and outstanding as of June 27, 2022.

To our knowledge we are not directly or indirectly owned or controlled by another company, a foreign government or any other natural or legal person, severally or jointly.

To our knowledge, there are no arrangements the operation of which may, at a subsequent date, result in a change in the control of our company.

B. Related Party Transactions

The following sets forth all material transactions and loans from January 1, 2019 to the current date between our company and: (a) enterprises that directly or indirectly through one or more intermediaries, control or are controlled by, or are under common control with, our company; (b) associates; (c) individuals owning, directly or indirectly, an interest in the voting power of our company that gives them significant influence over our company and close members of any such individuals' families; (d) key management personnel of our company, including directors and senior management of our company and close members of such individuals' families; and (e) enterprises in which a substantial interest in the voting power is owned, directly or indirectly, by any person described in (c) or (d) or over which such a person is able to exercise significant influence. For the purposes of this section, shareholders beneficially owning a 10% interest in the voting power of our company are presumed to have a significant influence.

Related party balances

The following amounts due to related parties are included in trade payables and accrued liabilities:

	December 31, 2021	December 31, 2020	December 31, 2019
Research and development fees owing to:			
Tricholog GmbH, a company controlled by Rolf Hoffmann, an officer of our company,	$-	$38,445	$18,376
McElwee Consulting Inc., a company controlled by Kevin McElwee, an officer of our company	$31,500	$33,625	$25,750
Dr. Petra Goessens-Rueck, head of clinical and regulatory affairs	$-	$-	$12,199
General and administrative fees (salaries) owed to:			
David Hall, a director of our company	$21,750	$17,250	$11,500
Lee Buckler, a director and officer of our company	$-	$45,000	$3,069
Simon Ma, an officer of our company	$-	$25,200	$-
Peter Lewis, a director of our company	$15,500	$13,750	$9,750
Peter Lowry, a director of our company	$15,250	$8,250	$12,999
Andrew Schutte, a director of our company	$14,500	$81,885	$11,159
Gary Boddington	$8,083	$-	$-
Total	$106,583	$263,405	$107,302

Preference shares

On September 10, 2019, three directors of the Company purchased 325,000 preference shares for $130,000 in total. These amounts are unsecured, non-interest bearing and have no fixed terms of repayment.

Related party transactions

We incurred the following transactions with companies that are controlled by directors and/or officers of our company. The transactions were measured at the amount established and agreed to by the parties.

	December 31, 2021	December 31, 2020	December 31, 2019
Research and development and general and administration fees paid to:			
Tricholog GmbH, a company controlled by Rolf Hoffmann, an officer of our company,	$18,404	$18,358	$44,879

	December 31, 2021	December 31, 2020	December 31, 2019
McElwee Consulting Inc., a company controlled by Kevin McElwee, an officer of our company	$30,000	$30,000	$35,000
Peter Lowry, a director of our company	$-	$-	$-
Dr. Petra Goessens-Rueck, head of clinical and regulatory affairs	$-	$-	$86,143
Total	$48,404	$48,358	$166,023

Key management compensation

On September 12, 2019, the Company announced that it had completed the first tranche of a private placement pursuant to which it issued 1,089,125 Class A Preference shares at a price of $0.40 per share for aggregate gross proceeds of $435,650.

Three directors of the Company purchased 325,000 preference shares for $130,000 in total. These amounts are unsecured, non-interest bearing and have no fixed terms of repayment.

Key management personnel are persons responsible for planning, directing and controlling the activities of an entity, and include executive directors, our chief executive officer and our chief financial officer. For details regarding the compensation, please see Item 6.B.

	December 31, 2021	December 31, 2020	December 31, 2019
General and administrative – salaries	$336,000	$336,000	$336,000
Directors' fees	$75,083	$71,250	$70,500
Stock-based compensation	$382,442	$3,397	$26,275
Total	$793,525	$410,647	$432,775

C. Interests of Experts and Counsel

Not applicable.

ITEM 8 Financial Information

A. Financial Statements and Other Financial Information

Our financial statements are stated in Canadian dollars and are prepared in accordance with IFRS as issued by the IASB. In this Form 20-F, unless otherwise specified, all dollar amounts are expressed in Canadian dollars. Financial statements included with this annual report are listed below:

Audited Annual Financial Statements as at December 31, 2021, 2020 and 2019:

Independent Auditor's Report of BDO Canada LLP, dated June ~~7~~ 28, 2022;

Consolidated Statements of Financial Position for the years ended December 31, 2021and 2020;

Consolidated Statements of Comprehensive Loss for the years ended December 31, 2021, 2020 and 2019;

Consolidated Statements of Cash Flows for the years ended December 31, 2021, 2020 and 2019;

Consolidated Statements of Changes in Equity (Deficiency) for the years ended December 31, 2021, 2020 and 2019; and

Notes to the Consolidated Financial Statements.

The audited consolidated financial statements for the years ended December 31, 2021, 2020 and 2019 can be found under "Item 17 Financial Statements".

Legal Proceedings

There are no legal or arbitration proceedings which may have, or have had in the recent past, a significant effect on our financial position or profitability.

Dividend Distributions

Holders of our common shares are entitled to receive such dividends as may be declared from time to time by our board of directors, in its discretion, out of funds legally available for that purpose. We intend to retain future earnings, if any, for use in the operation and expansion of our business and do not intend to pay any cash dividends in the foreseeable future.

B. Significant Changes

There were no significant changes in our financial affairs since December 31, 2020.

ITEM 9 The Offer and Listing

A. Offer and Listing Details

Price History

Since April 16, 2004, our common shares have been quoted on the OTC Bulletin Board or the OTCQB, as applicable, currently under the symbol "REPCF". On June 2, 2020, our common share were moved down to the Pink Sheets of the OTC Market Group. Since January 13, 2014, our common shares have been trading on the TSX Venture Exchange, under the symbol "RP". Since September 2012, our common shares have been trading on the Berlin Stock Exchange under the symbol P6P2 and code number A2APX7. On August 10, 2016, we effected a ten (10) for one (1) reverse split.

The trading price and volume of our company's common shares has been and may continue to be subject to wide fluctuations. The stock market has generally experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies with little or no current business operations. Because our common shares are only sporadically traded on the Pink

Sheets and the TSX Venture Exchange, shareholders may find it difficult to liquidate their common shares, or purchase new common shares, at certain times.

All of our common shares are issued in registered form. The transfer of our common shares is managed by our transfer agent, Computershare Investor Services Inc., 3rd Floor – 510 Burrard Street, Vancouver, British Columbia, V6C 3B9 (Telephone: 604.661.0271; Facsimile: 604.661.9549).

Our Class A Preference Shares are not listed on any stock exchange.

B. Plan of Distribution

Not applicable.

C. Markets

Since April 16, 2004, our common shares have been quoted on the OTC Bulletin Board or the OTCQB, as applicable, under the symbol "REPCF"; on June 2, 2020, our common share were moved down to the Pink Sheets of the OTC Market Group; since January 13, 2014 on the TSX Venture Exchange; and, since September 2012, on the Berlin Stock Exchange under the symbol P6P2 and code number A2APX7. Our common shares are not currently listed for trading on any other market or quotation system. On January 10, 2014, we delisted from the Canadian Securities Exchange (formerly the CNSX).

Our Class A Preference Shares are not listed on any stock exchange.

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10 Additional Information

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

We have been continued under the laws of the Province of British Columbia, Canada and have been assigned the number C0913693. Our company is governed by the *Business Corporations Act* (British Columbia).

Our Articles do not contain a description of our objects and purposes.

Our Articles do not restrict a director's power to vote on a proposal, arrangement or contract in which the director is materially interested, vote compensation to themselves or any other members of their body in

the absence of an independent quorum or exercise borrowing powers. There is no mandatory retirement age for our directors and our directors are not required to own securities of our company in order to serve as directors.

Our authorized capital consists of an unlimited number of common shares without par value and an unlimited number of Class A Shares without par value. Our Class A Shares may be issued in one or more series and our board of directors may fix the number of shares which is to comprise each series and designate the rights, privileges, restrictions and conditions attaching to each series. On August 2, 2019, our board approved the creation of a new class of Class A Shares to be designated as Class A Preference Shares of which 12,000,000 are authorized to be issued. As of June 27, 2022, there are 1,089,125 Class A Preference Shares issued and outstanding.

Holders of our common shares are entitled to vote at all meetings of shareholders, except meetings at which only holders of a specified class of shares are entitled to vote, receive any dividend declared by us and, subject to the rights, privileges, restrictions and conditions attaching to any other class of shares, receive the remaining property of our company upon dissolution.

The provisions in our Articles attaching to our common shares and Class A Shares may be altered, amended, repealed, suspended or changed by the affirmative vote of the holders of not less than two-thirds of the common shares and two-thirds of the Class A Shares, respectively, present in person or by proxy at any such meeting of holders.

Our Articles provide for our directors to hold office until the expiry of his term (which is stipulated to be immediately before the next election or appointment of directors at an annual general meeting of our shareholders) or until his successor is elected or appointed, unless their respective office is earlier vacated in accordance with our Articles or with the provisions of the *Business Corporations Act* (British Columbia). A director appointed or elected to fill a vacancy on the board of directors holds office for the unexpired term of their predecessor.

An annual meeting of shareholders must be held at such time in each year that is not later than fifteen months after the last preceding annual meeting and at such place as our board of directors may from time to time determine. The holders of not less than five percent of our issued common shares that carry the right to vote at a meeting may requisition our board of directors to call a meeting of shareholders for the purposes stated in the requisition. The quorum for the transaction of business at any meeting of shareholders is two persons who are entitled to vote at the meeting in person or by proxy. Only persons entitled to vote, our directors, president, secretary, lawyers and auditors, and others who, although not entitled to vote, are otherwise entitled or required to be present, are entitled to be present at a meeting of shareholders, provided that only persons entitled to vote may be counted in the quorum.

Except as provided in the *Investment Canada Act*, there are no limitations specific to the rights of non-Canadians to hold or vote our common shares under the laws of Canada or British Columbia, or in our charter documents. See the section entitled "Exchange Controls" below for a discussion of the principal features of the *Investment Canada Act* for non-Canadian residents proposing to acquire our common shares.

Our Articles do not contain provisions that would have an effect of delaying, deferring or preventing a change in control of our company, other than authorizing the issuance by our board of directors of preferred stock in series and limiting the persons who may call special meetings of shareholders. Our Articles do not contain any provisions that would operate only with respect to a merger, acquisition or corporate restructuring of our company.

Our Articles do not contain any provisions governing the ownership threshold above which shareholder ownership must be disclosed.

Our Articles are not significantly different from the requirements of the *Business Corporations Act* (British Columbia), and the conditions imposed by our Articles governing changes in capital are not more stringent than what is required by the *Business Corporations Act* (British Columbia).

Rights and Restrictions of Class A Preference Shares

The Class A Preference Shares have the following rights and restrictions:

Issue Price

The issue price for each Class A Preference Share shall be $0.40 per Class A Preference Share (the "**Issue Price**").

Rank

(a) All Class A Preference Shares shall be identical with each other in all respects.

(b) The Class A Preference Shares shall rank superior and in first priority to all common shares in the capital of the Company or shares of any other class of the Company as to dividends and upon liquidation, as described below. Any amounts herein shall be subject to appropriate adjustments in the event of any stock splits, consolidations and the like.

Voting Rights

The holders of the Class A Preference Shares (the "**Class A Shareholders**") shall not be entitled to receive notice of and to attend at and to vote in person or by proxy at any meetings of the holders of common shares. Class A Shareholders are entitled to receive notice and attend and to vote in person or by proxy at any meetings of the holders of Class A Preference Shares.

Dividends

Subject to the requirements of the *Business Corporations Act* (British Columbia), each holder of a Class A Preference Share shall be entitled to receive on the date fixed for payment thereof, and the Company shall pay, a fixed dividend which shall accrue on a daily basis (based on a 360 day year consisting of 12 30-day months) in arrears at the rate of seven percent (7%) per annum on the paid up amount of Class A Preference Shares, which shall be paid out of the money properly applicable for the payment of dividends or, at the election (by delivery of a notice to the other party) of the Company or the Class A Shareholder and subject to the approval of the TSX Venture Exchange, by the issuance of common shares, to be determined at a price per common share equal to the Market Price (as such term is defined in the policies of the TSX Venture Exchange) as of the date such dividends become payable or such other date as may be required by the policies of the TSX Venture Exchange. Dividends shall accrue and be paid on the date determined by the Company in its sole discretion, provided that no interest will be paid on any accumulation of dividends. The holders of the Class A Preference Shares shall not be entitled to any dividends other than the dividends provided herein. The declaration of dividends on Class A Preference Shares shall in no way obligate the Company or the directors to declare dividends on any other class of shares. No dividends shall be declared or paid on the Class A Preference Shares if to do so would render the Company insolvent.

Conversion by Class A Shareholders

(a) For the purposes of this section, the "**Conversion Price**" is equal to $0.33.

(b) At any time commencing after the first issuance of Class A Preference Shares, the paid up amount of each Class A Preference Share may be converted at the Conversion Price, at the option of the Class A Shareholder thereof, into common shares upon:

(i) the Class A Shareholder delivering to the Company a duly completed and executed notice of conversion in the form as provided by the Company (the "**Notice of Conversion**"), specifying the aggregate number of Class A Preference Shares to be converted and the date on which such conversion is to be effected (the "**Conversion Date**"), which date shall not be more than thirty (30) days following the date of delivery of the Notice of Conversion, provided that if no Conversion Date is specified in the Notice of Conversion, then the Conversion Date shall be the date that is thirty (30) days following the date of delivery of the Notice of Conversion or such other earlier date as is determined by the Company in its sole discretion; and

(ii) the Class A Shareholder surrendering to the Company for cancellation the share certificate representing the Class A Preference Shares being converted pursuant to the Notice of Conversion.

(c) In the event that the Company delivers a Notice of Redemption (as defined herein) to a Class A Shareholder with respect to redeeming any Class A Preference Shares, the Class A Shareholder may with respect to the Class A Preference Shares indicated in the Notice of Redemption, provide to the Company a Notice of Conversion within thirty (30) days of receipt of such Company notice and the Class A Shareholder's Notice of Conversion shall take precedence over the Notice of Redemption.

(d) Upon the conversion of Class A Preference Shares

(i) the rights of a Class A Shareholder as a holder of the converted Class A Preference Shares shall cease; and

(ii) each person in whose name any certificate for common shares is issuable upon such conversion shall be deemed to have become the holder of record of the common shares represented by such certificate.

(e) No fractional common shares shall be issued upon conversion of any of the Class A Preference Shares. Instead of any fractional common shares that would otherwise be issuable upon conversion of the Class A Preference Shares, each such fractional common share shall be rounded down to the nearest whole common share and any shortfall shall be made up by the Company in cash.

(f) The Company shall not, by amendment of its notice of articles, articles or through any reorganization, recapitalization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this section, but shall at all times in good faith assist in the carrying out of all the provisions of this section and in the taking of any action necessary or appropriate in order to protect the conversion rights of the holders of the Class A Preference Shares against impairment.

Redemption by the Company

(a) Subject to the rights of the Class A Shareholder to convert the Class A Preference Shares into common shares as provided above, the Company may, in its discretion at any time (the "**Redemption Date**"), redeem any or all of the Class A Preference Shares by delivering to the Class A Shareholder a notice of redemption (the "**Notice of Redemption**") specifying the aggregate number of Class A Shares to be redeemed and the date on which such redemption is to be effected (the "**Redemption Date**"), which date shall not be more than ninety (90) days following the date of delivery of the Notice of Redemption, provided that if no Redemption Date is specified in the Notice of Redemption, then the Redemption Date shall be the date that is ninety (90) days following the date of delivery of the Notice of Redemption. The redemption price (the "**Redemption Price**")

shall be: (i) $0.468 for the period from the date of issuance (the "**Issue Date**") to the date that is the first anniversary of the Issue Date; (ii) $0.536 for the period from the date that is the day after the first anniversary of the Issue Date to the date that is the second anniversary of the Issue Date; (iii) $0.604 for the period from the date that is the day after the second anniversary of the Issue Date to the date that is the third anniversary of the Issue Date; (iv) $0.672 for the period from the date that is the day after the third anniversary of the Issue Date to the date that is the fourth anniversary of the Issue Date; and (v) $0.740 for the period from the date that is the day after the fourth anniversary of the Issue Date and the date that is the fifth anniversary of the Issue Date. At any time prior to the date that is five (5) years from the date of issuance of the Class A Preference Shares (the "**Required Redemption Date**"), the Company may redeem any portion of the Class A Preference Shares, but on the Required Redemption Date, the Company shall redeem all remaining outstanding Class A Preference Shares at the applicable Redemption Price, subject to compliance with applicable laws.

(b) Subject to the provisions of the *Business Corporations Act* (British Columbia), the Company may, on the Redemption Date, redeem the number of Class A Preference Shares to be redeemed, and on the Required Redemption Date shall redeem all outstanding Class A Preference Shares by paying to the Class A Shareholder the applicable Redemption Price in respect of each redeemed Class A Preference Shares, together with all accrued but unpaid dividends. Payment may be made by certified cheque, bank draft or electronic transfer, and payment is deemed to be made on the date of mailing, delivery to a national or international courier or electronic transfer. Payment may be mailed or couriered to the address of the Class A Shareholder on the shareholder list of the Company. Upon fulfillment of such notice and payment, each such Class A Preference Shares shall be deemed cancelled. If such Class A Shareholder does not return for cancellation any Class A Preference Shares so redeemed, the Company may cancel said Class A Preference Shares with or without being in possession of the certificate representing such Class A Preference Shares.

Liquidation, Dissolution or Winding-Up

(a) In the event of any distribution of the assets of the Company (the "**Assets**") on the liquidation, dissolution or winding-up of the Company, whether voluntary or involuntary, or in the event of any other distribution of the Assets among its shareholders for the purpose of winding-up its affairs, the Class A Shareholders shall be entitled to receive and to be paid out of any Assets remaining available for distribution, before any payment or distribution is made, if any, to holders of any common shares or shares of any other class of the Company ranking junior to the Class A Preference Shares entitled to receive a portion of such remaining Assets, a liquidation preference equal to the applicable Redemption Price per Class A Preference Share, plus any accrued but unpaid dividends which such Class A Shareholder is entitled up until the date fixed for such liquidation, dissolution or winding-up of the Company.

(b) Neither the sale of all or substantially all the Assets, nor a merger or consolidation of the Company's share capital into or with any other entity shall be deemed to be a voluntary or involuntary liquidation, dissolution, or winding-up of the Company and be subject to the liquidation, dissolution and winding-up rights set forth in this section.

Restrictions on Transfer

The Class A Preference Shares may not be transferred without the prior written consent of the board of directors of the Company.

Modification

The rights and restrictions attaching to the Class A Preference Shares as provided herein may be amended or repealed by the Company with the approval of the Class A Shareholders as provided for in the section below.

Approval of Holders of Class A Preference Shares

Any approval required to be given hereunder at any time by the Class A Shareholder shall, except as otherwise required by the *Business Corporations Act* (British Columbia), be given by an instrument or instruments in writing signed by the Class A Shareholders holding not less than two-thirds of the then outstanding Class A Preference Shares or by resolution passed by at least two-thirds of the votes cast at a meeting, or any adjournment or postponement thereof, of the Class A Shareholders duly called and at which a quorum was present. In the event that such approval is to be given at a meeting of the Class A Shareholders, a quorum for the meeting shall consist of the holders, present in person or represented by proxy, of not less than a majority of the Class A Preference Shares outstanding at the time of the meeting.

C. Material Contracts

Other than as described elsewhere in this annual report on Form 20-F, there are no material contracts which our company and TrichoScience have entered into during the last two years.

D. Exchange Controls

There are presently no governmental laws, decrees or regulations in Canada which restrict the export or import of capital, or which impose foreign exchange controls or affect the remittance of interest, dividends or other payments to non-resident holders of our common shares. However, any remittances of dividends to shareholders not resident in Canada are subject to withholding tax in Canada. See the section entitled "Taxation" below.

Except as provided in the *Investment Canada Act*, there are no limitations specific to the rights of non-Canadians to hold or vote our common shares under the laws of Canada or British Columbia or in our charter documents. The following summarizes the principal features of the *Investment Canada Act* for non-Canadian residents proposing to acquire our common shares.

This summary is of a general nature only and is not intended to be, and should not be construed to be, legal advice to any holder or prospective holder of our common shares, and no opinion or representation to any holder or prospective holder of our common shares is hereby made. Accordingly, holders and prospective holders of our common shares should consult with their own legal advisors with respect to the consequences of purchasing and owning our common shares.

The *Investment Canada Act* governs the direct or indirect acquisition of control of an existing Canadian business by non-Canadians. Under the *Investment Canada Act*, non-Canadian persons or entities acquiring "control" (as defined in the *Investment Canada Act*) of a corporation carrying on business in Canada are required to either notify, or file an application for review with, Industry Canada, unless a specific exemption, as set out in the Investment Canada Act, applies. Industry Canada may review any transaction which results in the direct or indirect acquisition of control of a Canadian business, where the gross value of corporate assets exceeds certain threshold levels (which are higher for investors from members of the World Trade Organization, including United States residents, or World Trade Organization member-controlled companies) or where the activity of the business is related to Canada's cultural heritage or national identity. No change of voting control will be deemed to have occurred, for purposes of the *Investment Canada Act*, if less than one-third of the voting control of a Canadian corporation is acquired by an investor. In addition, the *Investment Canada Act* permits the Canadian government to review any investment where the responsible Minister has reasonable grounds to believe that an investment by a non-Canadian could be injurious to national security. No financial threshold applies to a national security

review. The Minister may deny the investment, ask for undertakings, provide terms or conditions for the investment or, where the investment has already been made, require divestment. Review can occur before or after closing and may apply to corporate re-organizations where there is no change in ultimate control.

If an investment is reviewable under the *Investment Canada Act*, an application for review in the form prescribed is normally required to be filed with Industry Canada prior to the investment taking place, and the investment may not be implemented until the review has been completed and the Minister responsible for the *Investment Canada Act* is satisfied that the investment is likely to be of net benefit to Canada. If the Minister is not satisfied that the investment is likely to be of net benefit to Canada, the non-Canadian applicant must not implement the investment, or if the investment has been implemented, may be required to divest itself of control of the Canadian business that is the subject of the investment. The Minister is required to provide reasons for a decision that an investment is not of net benefit to Canada.

Certain transactions relating to our common shares will generally be exempt from the *Investment Canada Act*, subject to the Minister's prerogative to conduct a national security review, including:

1. the acquisition of our common shares by a person in the ordinary course of that person's business as a trader or dealer in securities;

2. the acquisition of control of our company in connection with the realization of security granted for a loan or other financial assistance and not for a purpose related to the provisions of the Investment Canada Act; and

3. the acquisition of control of our company by reason of an amalgamation, merger, consolidation or corporate reorganization following which the ultimate direct or indirect control in fact of our company, through ownership of our common shares, remains unchanged.

E. Taxation

Material Canadian Federal Income Tax Consequences

We consider that the following general summary fairly describes the principal Canadian federal income tax consequences applicable to a holder of our common shares who is a resident of the United States, who is not, will not be and will not be deemed to be, a resident of Canada for purposes of the *Income Tax Act* (Canada) and any applicable tax treaty and who does not use or hold, and is not deemed to use or hold, his common shares in the capital of our company in connection with carrying on a business in Canada (a "**non-resident holder**").

This summary is based upon the current provisions of the *Income Tax Act*, the regulations thereunder (the "**Regulations**"), the current publicly announced administrative and assessing policies of the Canada Revenue Agency and the Canada-United States Tax Convention (1980), as amended (the "**Treaty**"). This summary also takes into account the amendments to the *Income Tax Act* and the Regulations publicly announced by the Minister of Finance (Canada) prior to the date hereof (the "**Tax Proposals**") and assumes that all such Tax Proposals will be enacted in their present form. However, no assurances can be given that the Tax Proposals will be enacted in the form proposed, or at all. This summary is not exhaustive of all possible Canadian federal income tax consequences applicable to a holder of our common shares and, except for the foregoing, this summary does not take into account or anticipate any changes in law, whether by legislative, administrative or judicial decision or action, nor does it take into account provincial, territorial or foreign income tax legislation or considerations, which may differ from the Canadian federal income tax consequences described herein.

This summary is of a general nature only and is not intended to be, and should not be construed to be, legal, business or tax advice to any particular holder or prospective holder of our common shares, and

no opinion or representation with respect to the tax consequences to any holder or prospective holder of our common shares is made. Accordingly, holders and prospective holders of our common shares should consult their own tax advisors with respect to the income tax consequences of purchasing, owning and disposing of our common shares in their particular circumstances.

Dividends

Dividends paid on our common shares to a non-resident holder will be subject under the *Income Tax Act* to withholding tax which tax is deducted at source by our company. The withholding tax rate for dividends prescribed by the *Income Tax Act* is 25% but this rate may be reduced under the provisions of an applicable tax treaty. Under the Treaty, the withholding tax rate is reduced to 15% on dividends paid by our company to residents of the United States and is further reduced to 5% where the beneficial owner of the dividends is a corporation resident in the United States that owns at least 10% of the voting common shares of our company.

Capital Gains

A non-resident holder is not subject to tax under the *Income Tax Act* in respect of a capital gain realized upon the disposition of a common share of our company unless such share is "taxable Canadian property" (as defined in the *Income Tax Act*) of the non-resident holder. Our common shares generally will not be taxable Canadian property of a non-resident holder unless the non-resident holder alone or together with non-arm's length persons owned, or had an interest in an option in respect of, not less than 25% of the issued shares of any class of our capital stock at any time during the 60 month period immediately preceding the disposition of the shares. In the case of a non-resident holder resident in the United States for whom shares of our company are taxable Canadian property, no Canadian taxes will generally be payable on a capital gain realized on such shares by reason of the Treaty unless the value of such shares is derived principally from real property situated in Canada.

Material United States Federal Income Tax Consequences

The following is a general discussion of certain possible United States Federal foreign income tax matters under current law, generally applicable to a U.S. Holder (as defined below) of our common shares who holds such shares as capital assets. This discussion does not address all aspects of United States Federal income tax matters and does not address consequences peculiar to persons subject to special provisions of Federal income tax law, such as those described below as excluded from the definition of a U.S. Holder. In addition, this discussion does not cover any state, local or foreign tax consequences. See *Taxation Certain Canadian Federal Income Tax Consequences* above.

The following discussion is based upon the Internal Revenue Code of 1986, as amended (the "**Code**"), Treasury Regulations, published Internal Revenue Service ("**IRS**") rulings, published administrative positions of the IRS and court decisions that are currently applicable, any or all of which could be materially and adversely changed, possibly on a retroactive basis, at any time. In addition, this discussion does not consider the potential effects, both adverse and beneficial, of any recently proposed legislation which, if enacted, could be applied, possibly on a retroactive basis, at any time. No assurance can be given that the IRS will agree with such statements and conclusions, or will not take, or a court will not adopt, a position contrary to any position taken herein.

The following discussion is for general information only and is not intended to be, nor should it be construed to be, legal, business or tax advice to any holder or prospective holder of our common shares, and no opinion or representation with respect to the United States Federal income tax consequences to any such holder or prospective holder is made. Accordingly, holders and prospective holders of common shares are urged to consult their own tax advisors with respect to Federal, state, local, and foreign tax consequences of purchasing, owning and disposing of our common shares.

U.S. Holders

As used herein, a "U.S. Holder" includes a holder of less than 10% of our common shares who is a citizen or resident of the United States, a corporation created or organized in or under the laws of the United States or of any political subdivision thereof, any entity which is taxable as a corporation for United States tax purposes and any other person or entity whose ownership of our common shares is effectively connected with the conduct of a trade or business in the United States. A U.S. Holder does not include persons subject to special provisions of Federal income tax law, such as tax-exempt organizations, qualified retirement plans, financial institutions, insurance companies, real estate investment trusts, regulated investment companies, broker-dealers, non-resident alien individuals or foreign corporations whose ownership of our common shares is not effectively connected with the conduct of a trade or business in the United States and shareholders who acquired their shares through the exercise of employee stock options or otherwise as compensation.

Distributions

The gross amount of a distribution paid to a U.S. Holder will generally be taxable as dividend income to the U.S. Holder for United States federal income tax purposes to the extent paid out of our current or accumulated earnings and profits, as determined under United States federal income tax principles. Distributions which are taxable dividends and which meet certain requirements will be "unqualified dividend income" and taxed to U.S. Holders at a maximum United States federal rate of 15%. Distributions in excess of our current and accumulated earnings and profits will be treated first as a tax-free return of capital to the extent the U.S. Holder's tax basis in the common shares and, to the extent in excess of such tax basis, will be treated as a gain from a sale or exchange of such shares.

Capital Gains

In general, upon a sale, exchange or other disposition of common shares, a U.S. Holder will generally recognize a capital gain or loss for United States federal income tax purposes in an amount equal to the difference between the amount realized on the sale or other distribution and the U.S. Holder's adjusted tax basis in such shares. Such gain or loss will be a United States source gain or loss and will be treated as a long-term capital gain or loss if the U.S. Holder's holding period of the shares exceeds one year. If the U.S. Holder is an individual, any capital gain will generally be subject to United States federal income tax at preferential rates if specified minimum holding periods are met. The deductibility of capital losses is subject to significant limitations.

Foreign Tax Credit

A U.S. Holder who pays (or has had withheld from distributions) Canadian income tax with respect to the ownership of our common shares may be entitled, at the option of the U.S. Holder, to either a deduction or a tax credit for such foreign tax paid or withheld. Generally, it will be more advantageous to claim a credit because a credit reduces United States Federal income taxes on a dollar-for-dollar basis, while a deduction merely reduces the taxpayer's income subject to tax. This election is made on a year-by-year basis and generally applies to all foreign income taxes paid by (or withheld from) the U.S. Holder during that year. There are significant and complex limitations which apply to the tax credit, among which is an ownership period requirement and the general limitation that the credit cannot exceed the proportionate share of the U.S. Holder's United States income tax liability that the U.S. Holder's foreign source income bears to his or its worldwide taxable income. In determining the application of this limitation, the various items of income and deduction must be classified into foreign and domestic sources. Complex rules govern this classification process. The availability of the foreign tax credit and the application of these complex limitations on the tax credit are fact specific and holders and prospective holders of our common shares should consult their own tax advisors regarding their individual circumstances.

Passive Foreign Investment Corporation

We do not believe that we are a passive foreign investment corporation (a "**PFIC**"). However, since PFIC status depends upon the composition of a company's income and assets and the market value of its assets and shares from time to time, there is no assurance that we will not be considered a PFIC for any taxable year. If we were treated as a PFIC for any taxable year during which a U.S. Holder held shares, certain adverse tax consequences could apply to the U.S. Holder.

If we are treated as a PFIC for any taxable year, gains recognized by such U.S. Holder on a sale or other disposition of shares would be allocated ratably over the U.S. Holder's holding period for the shares. The amount allocated to the taxable year of the sale or other exchange and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as applicable, and an interest charge would be imposed on the amount allocated to such taxable year. Further, any distribution in respect of shares in excess of 125% of the average of the annual distributions on shares received by the U.S. Holder during the preceding three years or the U.S. Holder's holding period, whichever is shorter, would be subject to taxation as described above. Certain elections may be available to U.S. Holders that may mitigate some of the adverse consequences resulting from PFIC status. However, regardless of whether such elections are made, dividends paid by a PFIC will not be "qualified dividend income" and will generally be taxed at the higher rates applicable to other items of ordinary income.

U.S. Holders and prospective holders should consult their own tax advisors regarding the potential application of the PFIC rules to their ownership of our common shares.

F. Dividends and Paying Agents

Not applicable.

G. Statements by Experts

Not applicable.

H. Documents on Display

Documents concerning our company referred to in this annual report may be viewed by appointment during normal business hours at our registered and records office at Suite 900 - 885 West Georgia Street, Vancouver, British Columbia, Canada V6C 3H1.

I. Subsidiary Information

We have one subsidiary: TrichoScience Innovations Inc., a company incorporated on September 7, 2006 under the *Business Corporations Act* (Canada).

ITEM 11 Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

ITEM 12 Description of Securities Other Than Equity Securities

Not applicable.

PART II

ITEM 13 Defaults, Dividend Arrearages and Delinquencies

Not applicable.

ITEM 14 Material Modifications to the Rights of Security Holders and Use of Proceeds

Not applicable.

ITEM 15 Controls and Procedures

A. Disclosure Controls and Procedures

As required by paragraph (b) of Rules 13a-15 or 15d-15 under the Exchange Act, our principal executive officer and principal financial officer evaluated our company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act) as of the end of the period covered by this annual report on Form 20-F. Based on this evaluation, these officers concluded that as of the end of the period covered by this annual report on Form 20-F, our disclosure controls and procedures were not effective to ensure that the information required to be disclosed by our company in reports it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission. These disclosure controls and procedures include controls and procedures designed to ensure that such information is accumulated and communicated to our company's management, including our company's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. The conclusion that our disclosure controls and procedures were not effective was due to the presence of material weaknesses in internal control over financial reporting as identified below under the heading "Management's Report on Internal Control Over Financial Reporting." Management anticipates that such disclosure controls and procedures will not be effective until the material weaknesses are remediated. Our company intends to remediate the material weaknesses as set out below.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within our company have been detected.

B. Management's Report on Internal Control Over Financial Reporting

Our company's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) for our company. Our company's internal control over financial reporting is designed to provide reasonable assurance, not absolute assurance, regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Internal control over financial reporting includes those policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our company's assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles in the United States of America, and that our company's receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. In addition, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions and that the degree of compliance with the policies or procedures may deteriorate.

Our management, including our principal executive officer and principal financial officer, conducted an evaluation of the design and operation of our internal control over financial reporting as of December 31, 2021 based on the criteria set forth in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. This evaluation included review of the documentation of controls, evaluation of the design effectiveness of controls, testing of the operating effectiveness of controls and a conclusion on this evaluation. A material weakness is a control deficiency, or combination of control deficiencies, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

Based on this evaluation, our management concluded our internal control over financial reporting was not effective as at December 31, 2021 due to the following material weaknesses: (i) a lack of written policies and procedures for accounting, financial reporting and corporate governance; and (ii) inadequate review of accounting entries and accounting positions; (iii) inadequate segregation of incompatible duties; and (iv) inadequate accounting for complex and/or unusual transactions.

Our company has taken steps to enhance and improve the design of our internal controls over the financial reporting, however these steps were not complete as of December 31, 2021. During the period covered by this annual report on Form 20-F, we have not been able to remediate the material weaknesses identified above.

Plan for Remediation of Material Weaknesses

We intend to take appropriate and reasonable steps to make the necessary improvements to remediate these deficiencies. We intend to consider the results of our remediation efforts and related testing as part of our year-end 2022 assessment of the effectiveness of our internal control over financial reporting.

Subject to receipt of additional financing, we have undertaken, or intend to undertake, the below remediation measures to address the material weaknesses described in this annual report. Such remediation activities include that we intend to continue to update the documentation of our internal control processes, including formal risk assessment of our financial reporting processes.

The remediation efforts set out above are largely dependent upon our company securing additional financing to cover the costs of implementing the changes required. If we are unsuccessful in securing such funds, remediation efforts may be adversely affected in a material manner.

Our internal control over financial reporting was not subject to attestation by our independent registered public accounting firm pursuant to the rules of the Securities and Exchange Commission that permit us to provide only management's report in this annual report.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues, if any, within our company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake.

C. Changes in Internal Controls Over Financial Reporting

There were no significant changes in internal controls over financial reporting during the year ended December 31, 2021 that have materially affected or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16A Audit Committee Financial Expert

Our board of directors has determined that at least one member of its audit committee, being Mr. Peter Lewis, qualifies as an "audit committee financial expert" as defined in Item 16A(b) of Form 20-F. Mr. Lewis is also "independent" as that term is defined in Nasdaq Marketplace Rule 5605(a)(2).

ITEM 16B Code of Ethics

Code of Ethics

Effective July 15, 2004, our board of directors adopted a Code of Business Conduct and Ethics that applies to, among other persons, our president (being our principal executive officer) and our chief financial officer (being our principal financial and accounting officer), as well as persons performing similar functions. As adopted, our Code of Business Conduct and Ethics sets forth written standards that are designed to deter wrongdoing and to promote:

1. honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;

2. full, fair, accurate, timely, and understandable disclosure in reports and documents that we file with, or submit to, the Securities and Exchange Commission and in other public communications made by us;

3. compliance with applicable governmental laws, rules and regulations;

4. the prompt internal reporting of violations of the Code of Business Conduct and Ethics to an appropriate person or persons identified in the Code of Business Conduct and Ethics; and

5. accountability for adherence to the Code of Business Conduct and Ethics.

Our Code of Business Conduct and Ethics requires, among other things, that all of our company's personnel shall be accorded full access to our president and secretary with respect to any matter which may arise relating to the Code of Business Conduct and Ethics. Further, all of our company's personnel are to be

accorded full access to our company's board of directors if any such matter involves an alleged breach of the Code of Business Conduct and Ethics by our President or Secretary.

In addition, our Code of Business Conduct and Ethics emphasizes that all employees, and particularly managers and/or supervisors, have a responsibility for maintaining financial integrity within our company, consistent with generally accepted accounting principles, and federal, provincial and state securities laws. Any employee who becomes aware of any incidents involving financial or accounting manipulation or other irregularities, whether by witnessing the incident or being told of it, must report it to his or her immediate supervisor or to our company's president. If the incident involves an alleged breach of the Code of Business Conduct and Ethics by the president, the incident must be reported to any member of our board of directors. Any failure to report such inappropriate or irregular conduct of others is to be treated as a severe disciplinary matter. It is against our company policy to retaliate against any individual who reports in good faith the violation or potential violation of our company's Code of Business Conduct and Ethics by another.

Our Code of Business Conduct and Ethics was filed with the Securities and Exchange Commission as Exhibit 14.1 to our annual report filed on July 15, 2004. We will provide a copy of the Code of Business Conduct and Ethics to any person without charge, upon request. Requests can be sent to: RepliCel Life Sciences Inc., Suite 900 – 570 Granville Street, Vancouver, British Columbia, Canada V6C 3P1.

ITEM 16C Principal Accountant Fees and Services

Audit Fees

Our board of directors appointed BDO Canada LLP, Chartered Accountants, Vancouver, British Columbia, PCAOB ID# 1227, as independent auditors to audit our consolidated financial statements for the fiscal year ended December 31, 2021. The aggregate fees billed by BDO Canada LLP for audit services rendered for the audit of our annual financial statements and interim reviews of our quarterly financial statements for the fiscal years ended December 31, 2021 and December 31, 2020 were $115,000 and $85,000, respectively.

Audit Related Fees

For the fiscal year ended December 31, 2021, and 2020, the aggregate fees billed for audit related services by BDO Canada LLP were $nil and $nil, respectively.

Tax Fees

For the fiscal years ended December 31, 2021 and 2020, the aggregate fees billed for tax compliance, tax advice and tax planning by BDO Canada LLP were $nil and $nil, respectively.

All Other Fees

For the fiscal years ended December 31, 2021 and 2020, the aggregate fees billed by BDO Canada LLP for other non-audit professional services, other than those services listed above, were $nil and $nil, respectively.

Pre-Approval Policies and Procedures

Our audit committee pre-approves all services provided by our independent auditors. All of the services and fees described under the categories of "Audit Fees", "Audit Related Fees", "Tax Fees" and "All Other Fees" were reviewed and approved by the audit committee before the respective services were rendered,

and none of such services were approved by the audit committee pursuant to paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

The audit committee has considered the nature and amount of the fees billed by BDO Canada LLP, Chartered Accountants, and believes that the provision of the services for activities unrelated to the audit is compatible with maintaining the independence of BDO Canada LLP, Chartered Accountants.

ITEM 16D Exemption from the Listing Standards for Audit Committees

Not applicable.

ITEM 16E Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In 2021, neither we nor any affiliated purchaser (as defined in the *Securities Exchange Act of 1934*) purchased any of our common shares.

ITEM 16F Change in Registrant's Certifying Accountant

None.

ITEM 16G. Corporate Governance

Not applicable.

ITEM 16H. Mine Safety Disclosure

Not applicable.

ITEM 17 Financial Statements

Financial Statements Filed as Part of this Report:

Audited Annual Financial Statements as at December 31, 2021, 2020 and 2019:

Independent Auditor's Report of BDO Canada LLP, dated June ~~7,~~ 28, 2022;

Consolidated Statements of Financial Position for the years ended December 31, 2021 and 2020

Consolidated Statements of Comprehensive Loss for the years ended December 31, 2021, 2020 and 2019;

Consolidated Statements of Cash Flows for the years ended December 31, 2021, 2020 and 2019;

Consolidated Statements of Changes in Equity (Deficiency) for the years ended December 31, 2021, 2020 and 2019; and

Notes to the Consolidated Financial Statements.

INSERT FINANCIAL STATEMENTS HERE

ITEM 18 Financial Statements

Refer to Item 17 - Financial Statements

ITEM 19 Exhibits

The following exhibits are being filed as part of this annual report, or are incorporated by reference where indicated:

(1)	**Articles of Incorporation and By-laws**
1.1	Certificate of Continuation dated June 22, 2011 (incorporated by reference from our Annual Report on Form 20-F, filed on April 26, 2012).
1.2	Articles adopted on May 10, 2011 (incorporated by reference from our Annual Report on Form 20-F, filed on April 26, 2012).
1.3	Notice of Articles dated December 5, 2011 (incorporated by reference from our Annual Report on Form 20-F, filed on April 26, 2012).
(4)	**Material Contracts**
4.1	Share Exchange Agreement dated October 29, 2010 with TrichoScience Innovations Inc. and the shareholders of TrichoScience Innovations Inc. (incorporated by reference from our Shell Company Report on Form 20-F, filed on December 27, 2010).
4.2	Pooling Agreement dated December 22, 2010 (incorporated by reference from our Shell Company Report on Form 20-F, filed on December 27, 2010).
4.3	Share Exchange Agreement dated October 29, 2010 with 583885 B.C. Ltd. and the shareholders of 583885 B.C. Ltd. (incorporated by reference from our Shell Company Report on Form 20-F, filed on December 27, 2010).
4.4	Escrow Agreement dated December 22, 2010 (incorporated by reference from our Shell Company Report on Form 20-F, filed on December 27, 2010).
4.5	Corporate Consulting Services Agreement dated June 1, 2010 among TrichoScience Innovations Inc. and 583885 B.C. Ltd. (incorporated by reference from our Shell Company Report on Form 20-F, filed on December 27, 2010).
4.6	Collaboration and Technology Transfer Agreement with RepliCel Life Sciences Inc. dated July 9, 2013 (portions of the exhibit has been omitted pursuant to a request for confidential treatment). (incorporated by reference from our Shell Company Report on Form 20-F, filed on March 18, 2014).
4.7	Private Placement Agreement dated July 10, 2018 with YOFOTO (China) Health Industry Co. Ltd. (incorporated by reference from our Annual Report on Form 20-F, filed on April 30, 2019)
4.8	License and Collaboration Agreement dated July 10, 2018 with YOFOTO (China) Health Industry Co. Ltd. (incorporated by reference from our Annual Report on Form 20-F, filed on April 30, 2019)
4.9	Share Purchase Agreement dated January 22, 2021 with MainPointe Pharmaceuticals, LLC. (incorporated by reference from our Annual Report on Form 20-F, filed on May 17, 2021)
4.10	Distribution Agreement dated January 22, 2021 with MainPointe Pharmaceuticals, LLC. (incorporated by reference from our Annual Report on Form 20-F, filed on May 17, 2021)
4.11	Royalty Participation Agreement dated January 22, 2021 with MainPointe Pharmaceuticals, LLC. (incorporated by reference from our Annual Report on Form 20-F, filed on May 17, 2021)
(8)	**List of Significant Subsidiaries**
8.1	TrichoScience Innovations Inc., a company incorporated under the federal laws of Canada, all of the shares of which are beneficially owned by our company.
(11)	**Code of Ethics**
11.1	Code of Ethics (incorporated by reference from our Registration Statement on Form 20-F, as amended, filed on July 15, 2004).
(12)	**302 Certification**
12.1*	Section 302 Certification under Sarbanes-Oxley Act of 2002 for Lee Buckler.
12.2*	Section 302 Certification under Sarbanes-Oxley Act of 2002 for Simon Ma.
(13)	**906 Certification**
13.1*	Section 906 Certification under Sarbanes-Oxley Act of 2002 for Lee Buckler.
13.2*	Section 906 Certification under Sarbanes-Oxley Act of 2002 for Simon Ma.

* Filed herewith

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

REPLICEL LIFE SCIENCES INC.

Per: /s/ Lee Buckler
Lee Buckler
Chief Executive Officer, President and Director

Dated: June ~~7~~ 28, 2022

Per: /s/ Simon Ma
Simon Ma
Chief Financial Officer

Dated: June ~~7~~ 28, 2022