Financial Statements and Management's Discussion and Analysis

December 31, 2021

MANAGEMENT DISCUSSION & ANALYSIS

2021

March 2, 2022

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

BASIS OF PRESENTATION

Our Management Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read in conjunction with our 2021 audited consolidated financial statements and notes thereto, which have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB"). This MD&A, along with our consolidated financial statements for the year ended December 31, 2021, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on March 2, 2022. Unless otherwise indicated, all references to "$" and "dollars" in this discussion and analysis mean Canadian dollars.

FORWARD-LOOKING STATEMENTS

The following discussion contains forward-looking statements, within the meaning of Section 21E of the United States *Securities Exchange Act of 1934, as amended* and forward-looking information under applicable Canadian securities laws (such forward-looking statements and forward-looking information are collectively referred to herein as "forward-looking statements"). Forward-looking statements, including: our belief as to the potential and mode of action of pelareorep, an intravenously delivered immuno-oncolytic virus, as a cancer therapeutic; our expectation that we will incur substantial losses and will not generate significant revenues until and unless pelareorep becomes commercially viable; our business strategy, goals, focus and objectives for the development of pelareorep, including our immediate primary focus on advancing our program in hormone receptor-positive / human epidermal growth factor 2-negative metastatic breast cancer to a phase 3 licensure-enabling study; the impact of the COVID-19 pandemic on our research and development activities, business operations and financial condition, our plans to mitigate any such impact; the potential impact of the COVID-19 pandemic on stock markets and global economic activity; our plan to actively manage the development of our clinical trial program, our preclinical and collaborative programs, our manufacturing process and pelareorep supply; our plans respecting regulatory approval for pelareorep; our planned clinical development program, including the timing thereof; our expectations regarding the anticipated benefits and value to us of additional clinical data; our current clinical development approach; our exploration of additional registration program opportunities; our expectations as to the purpose, design, outcomes and benefits of our current or pending clinical trials involving pelareorep; our expectations regarding enrollment under our various clinical trials; our expectations respecting the delivery of additional clinical data and the timing thereof; our anticipated milestones and catalysts; our planned 2022 development activity for pelareorep; our 2022 manufacturing program; our anticipated 2022 cash requirements to fund our operations; our anticipated 2022 expenses relating to clinical trials, manufacturing and related process development, intellectual property, translational science, personnel-related and other and operating expenses; our plans respecting the maintenance of adequate cash reserves to support our planned activities; our anticipated cash usage in 2022; our plans for funding our capital expenditure requirements; our approach to credit rate, interest rate, foreign exchange and liquidity risk mitigation; the effectiveness of our internal control systems; and other statements that are not historical facts or which are related to anticipated developments in our business and technologies. In any forward-looking statement in which we express an expectation or belief as to future results, such expectations or beliefs are expressed in good faith and are believed to have a reasonable basis, but there can be no assurance that the statement or expectation or belief will be achieved. Forward-looking statements, involve known and unknown risks and uncertainties, which could cause our actual results to differ materially from those in the forward- looking statements. We may be impacted by business interruptions resulting from COVID-19 coronavirus, including operating, manufacturing supply chain, clinical trial and project development delays and disruptions, labor shortages, travel and shipping disruption and shutdowns (including as a result of government regulation and prevention measures). It is unknown whether and how the Company may be affected if the COVID-19 pandemic persists for an extended period of time. We may incur expenses or delays relating to such events outside of our control, which could have a material adverse impact on our business, operating results and financial condition.

Such risks and uncertainties include, among others, the need for and availability of funds and resources to pursue research and development projects, the efficacy of pelareorep as a cancer treatment, the success and timely completion of clinical studies and trials, our ability to successfully commercialize pelareorep, uncertainties related to the research, development and manufacturing of pelareorep, uncertainties related to competition, changes in technology, the regulatory process and general changes to the economic environment.

With respect to the forward-looking statements made within this MD&A, we have made numerous assumptions regarding among other things: our ability to recruit and retain talented employees, our continued ability to obtain financing to fund our clinical development plan, our ability to receive regulatory approval to commence enrollment in the clinical studies which are

part of our clinical development plan, our ability to maintain our supply of pelareorep and future expense levels being within our current expectations.

Investors should consult our quarterly and annual filings with the Canadian and U.S. securities commissions for additional information on risks and uncertainties relating to the forward-looking statements. Forward-looking statements are based on assumptions, projections, estimates, and expectations of management at the time such forward-looking statements are made, and such assumptions, projections, estimates and/or expectations could change or prove to be incorrect or inaccurate. Investors are cautioned against placing undue reliance on forward-looking statements. We do not undertake any obligation to update these forward-looking statements except as required by applicable law.

Pelareorep Development Update For 2021

Oncolytics Biotech Inc. is a Development-Stage Company

Since our inception in April of 1998, Oncolytics Biotech Inc. has been a development-stage company focusing our research and development efforts on pelareorep, an intravenously delivered immunotherapeutic agent with the potential to treat a variety of cancers. We have not been profitable since our inception and expect to continue to incur substantial losses as we continue research and development efforts. We do not expect to generate significant revenues until, and unless, pelareorep becomes commercially viable.

Our goal each year is to advance pelareorep through the various steps and stages of development required for potential pharmaceutical products. In order to achieve this goal, we proactively manage all aspects of the development of our clinical trial program, our translational science program, our manufacturing process and pelareorep supply, and our intellectual property.

Potential Impact of COVID-19

During 2021, the ongoing coronavirus infectious disease 2019 (COVID-19) pandemic has touched elements of our business operations. COVID-19, including its variants, have created challenges affecting our clinical trial activities, including patient enrollment and site activation, along with our manufacturing supply chain. Some of the challenges have included, among other things, patients choosing to delay treatments, clinical sites suspending study activity temporarily, vendor and collaborator staff shortages, and raw material and components delays. While these challenges have largely impacted the timing of certain activities, we believe the impact on our overall business, to date, has not been significant. As well, we believe our financial condition, liquidity, and longer-term strategic development remain on track. However, COVID-19 has caused and may continue to cause significant fluctuations in stock markets, global economic activity, and healthcare systems. The scale and duration of these developments remain uncertain and could affect our ability to finance and execute our operations.

The extent to which COVID-19 might prolong and/or cause significant disruptions to our business and materially impact our results of operations and our ongoing and planned clinical studies will depend on future developments. These future developments are highly uncertain and cannot be predicted, such as the duration and severity of outbreaks, including future potential waves or cycles, travel restrictions and social distancing, business closures or business disruptions, and the effectiveness of actions taken to contain and treat the disease and to address its impact, including on financial markets. A lack of coordinated responses on risk mitigation and vaccination deployment with respect to the COVID-19 pandemic could result in significant increases to the duration and severity of the pandemic and could have a corresponding negative impact on our business.

We will continue to monitor COVID-19 and its impact on our industry and business. We are collaborating with our investigators, partners, and vendors to minimize its effect and to ensure the safety of patients and employees, minimize the effect of supply chain challenges, and maintain the advancement of our clinical programs. We expect these measures will allow us to adequately respond to any COVID-19-related challenges that may arise. Moving forward, we plan to remain in contact with relevant stakeholders and keep the market apprised of any new information that may materially impact clinical timelines.

Clinical Trial Program

The ultimate objective of our clinical development program is to obtain regulatory approval for pelareorep and is based on the compelling efficacy data from previous studies in breast cancer, pancreatic cancer, colorectal cancer, myeloma, and other malignancies. Our immediate primary focus continues to be on advancing our program in hormone receptor-positive / human

epidermal growth factor 2-negative (HR+/HER2-) metastatic breast cancer (mBC) to a phase 3 licensure-enabling study. In addition, we are looking to explore other registration program opportunities.

Our current clinical development approach centers on pelareorep's ability to stimulate immune-mediated tumor killing, particularly in combination with immune checkpoint inhibitors and other immune-based therapies. We believe this approach has the most promise for generating clinically impactful data and offers the most expeditious path to approval. As our clinical development program advances, we anticipate that pelareorep's ability to enhance innate and adaptive immune responses when combined with different classes of immunotherapies will play an increasing role. This greatly increases the opportunities for expansion of our clinical program along with business development and partnering to address a broad range of cancers in combination with a variety of partner therapies.

2021 Developments

Clinical studies aiding our breast cancer program

Collaboration with SOLTI: AWARE-1 study

In February 2019, we received approval for our AWARE-1 study from the Spanish Agency for Medicine and Health Products. This clinical collaboration with SOLTI, an academic research group dedicated to breast cancer research, is a window of opportunity study in the neoadjuvant setting for breast cancer using pelareorep in combination with F. Hoffmann-La Roche (Roche)'s anti-PD-L1 checkpoint inhibitor, atezolizumab (Tecentriq®). In 2020, we published various clinical data demonstrating the ability of pelareorep to promote a pro-inflammatory tumor microenvironment (TME) and provided a basis for the findings of our prior successful phase 2 trial (IND.213) that showed a statistically significant near doubling of overall survival with pelareorep treatment in HR+/HER2- breast cancer patients. These data also highlighted the potential of a predictive biomarker (T cell clonality) to identify patients with breast cancer most likely to respond to pelareorep.

In 2021, we published the results at the 2021 AACR Annual Meeting showing the first two cohorts of patients receiving pelareorep plus checkpoint blockade therapy met the trial's primary endpoint. These patients were treated with pelareorep and letrozole without (cohort 1) or with (cohort 2) the PD-L1 inhibitor atezolizumab prior to surgery. Evaluation of cohorts 1 and 2 was the core objective of AWARE-1, as HR+/HER2- is the breast cancer subtype we intend to examine in a future registrational study. Key data and conclusions included:

- 60% of cohort 2 patients (n=10) saw a CelTIL increase of at least 30% from baseline (pre-pelareorep administration) to surgery (21-days post-administration), exceeding the study's pre-specified primary endpoint;
- Cohort 1 also showed a promising trend towards an increased CelTIL score, with 40% of patients showing a 30% increase in the CelTIL value;
- Treatment with pelareorep alone or in combination with atezolizumab increased tumor PD-L1 expression and led to the conversion of PD-L1 negative tumors into PD-L1 positive tumors;
- Pelareorep profoundly reverses immunosuppressive tumor microenvironments and promotes immune effector cell infiltration into solid tumors, positioning it as an enabling technology for a variety of immunotherapeutic agents;
- Tumor-cell specific pelareorep replication was observed in all evaluated patients following intravenous pelareorep administration;
- 70% of all cohort 1 and 2 patients (n=20) saw an increase in CelTIL from baseline to surgery;
- The addition of atezolizumab enhances pelareorep's ability to generate and expand new anti-viral and anti-tumor T cell clones in the tumor and periphery; and
- Compared to cohort 1, cohort 2 patients had a higher ratio of CD8+ T cells to regulatory T cells, suggesting pelareorep and checkpoint inhibition enhances inflammation within the tumor microenvironment.

Additional data analysis from AWARE-1 indicated that changes in peripheral blood T cell populations may be a predictive biomarker of pelareorep therapy. Collectively, these analyses further demonstrate pelareorep's immunotherapeutic mechanism of action and its ability to synergize with checkpoint inhibitors such as atezolizumab. They also suggest that changes in peripheral blood T cell populations are predictive of response to pelareorep therapy and could potentially serve as the basis for a blood-based biomarker to inform the design of subsequent studies.

Co-development Agreement with Pfizer Inc. and Merck KGaA, Darmstadt, Germany: BRACELET-1 study

In 2019, we entered into a co-development agreement with Merck KGaA, Darmstadt, Germany and Pfizer Inc. to co-develop pelareorep in combination with paclitaxel and avelumab (Bavencio®), a human anti-PD-L1 antibody, for the treatment of HR+/HER2- mBC. This phase 2 clinical trial is jointly funded by Oncolytics and Pfizer. The study, known as BRACELET-1, is an open-label study planned to enroll 48 patients into three cohorts: paclitaxel alone, paclitaxel in combination with pelareorep,

and paclitaxel in combination with both pelareorep and avelumab. PrECOG LLC, a leading cancer research network, is managing the BRACELET-1 study. We dosed the first patient in 2020.

The study is examining the expression of immune-related biomarkers to identify changes in T cell population between pretreatment and on-therapy biopsies and seek to confirm our previously identified biomarker. It is designed to assess efficacy in terms of overall response rate at week 16 per RECIST 1.1. The safety of the combination is also being evaluated. The results of this study may provide an opportunity to add an arm to our proposed registration study that includes a checkpoint inhibitor in addition to the chemotherapy-pelareorep combination. Furthermore, the results of the BRACELET-1 study may provide important confirmatory data in the same patient population where we presented compelling mBC survival data from our IND.213 study at the 2017 AACR Annual Meeting. These endpoints, including the biomarker data, are expected to further de-risk our contemplated registration study, permitting for a smaller study with a higher likelihood of clinical success.

In 2021, we began data analysis activities, continued patient enrollment and treatment, and completed study initiating activities including selecting and readying additional clinical trial sites.

Licensing Agreement with Adlai Nortye Biopharma Co., Ltd: bridging clinical trial

In 2021, our partner, Adlai Nortye Biopharma Co., Ltd. (Adlai), dosed the first patient in a bridging clinical trial evaluating the safety, tolerability, and preliminary efficacy of pelareorep-paclitaxel combination therapy in Chinese patients with advanced or metastatic breast cancer. We entered into a regional licensing agreement (the "Licensing Agreement") with Adlai in November 2017, under which Adlai will have exclusive development and commercialization rights to pelareorep in certain Asian regions and we are entitled to certain milestone payments. Results from the bridging trial are expected to allow Adlai to include data from our North American metastatic breast cancer trials in a future submission to Chinese regulators.

Additional checkpoint inhibitor combinations

Triple-negative breast cancer study combining pelareorep and retifanlimab: IRENE study

In 2021, we published a positive interim safety update at the 2021 San Antonio Breast Cancer Symposium (SABCS) and continued patient enrollment activities in our investigator-sponsored trial (IST) managed by Rutgers Cancer Institute of New Jersey. This single-arm, open-label, phase 2 trial, known as IRENE, is investigating the use of pelareorep in combination with Incyte's anti-PD-1 checkpoint inhibitor, retifanlimab, in patients with metastatic triple-negative breast cancer (TNBC). This study plans to enroll 25 patients.

The IRENE study represents an expansion of our lead breast cancer program into a new disease subtype (TNBC). In addition to investigating the safety and efficacy of pelareorep-anti-PD-1 combination treatment in TNBC patients, the study is also evaluating changes in PD-L1 expression and correlations between treatment outcomes and peripheral T cell clonality, a previously identified biomarker of pelareorep response that may enable the success of future pivotal studies by facilitating the patient selection process.

Collaboration with Roche and AIO-Studien-gGmbH: GOBLET platform study

In 2021, we received approval for our GOBLET study from the German federal agency. This phase 1/2 trial, announced in 2020, is a collaboration with Roche and AIO-Studien-gGmbH, a leading academic cooperative medical oncology group based in Germany. The study is investigating the use of pelareorep, in combination with Roche's anti-PD-L1 checkpoint inhibitor atezolizumab (Tecentriq®), in patients with metastatic pancreatic, metastatic colorectal and advanced anal cancers. The study is expected to be conducted at up to 25 centers in Germany. The primary endpoint of the study is safety, with overall response rate and blood-based biomarkers (T cell clonality and CEACAM6) as exploratory endpoints. Approximately 55 patients are planned for enrollment across four separate cohorts: pelareorep in combination with atezolizumab, gemcitabine, and nab-paclitaxel in 1st line metastatic pancreatic cancer patients, pelareorep in combination with atezolizumab in 2nd and 3rd line metastatic colorectal cancer patients that are diagnosed as MSI high (microsatellite instability), pelareorep in combination with atezolizumab and TAS-102 in 3rd line metastatic colorectal cancer patients, and pelareorep in combination with atezolizumab in 2nd line advanced and unresectable anal cancer patients.

In 2021, we dosed our first patient, continued with patient enrollment and treatment along with study startup activities, including selecting and readying clinical trial sites.

Pancreatic cancer study combining pelareorep and Keytruda®

In 2021, we continued patient follow-up activities. We published data at the 2021 American Society of Clinical Oncology (ASCO) Annual Meeting indicating pelareorep and Keytruda® (pembrolizumab) synergize and show anti-cancer activity in

second-line pancreatic cancer patients, which is mediated through the complementary immunotherapeutic effects of the two agents. Key data and conclusions included:

- Disease control was achieved in 42% (5/12) of patients, with one patient achieving a partial response and four patients achieving stable disease;
- On-treatment tumor biopsies showed pelareorep replication and increased infiltration of CD8+ T cells and PD-L1+ cells relative to pre-treatment samples;
- Patients achieving disease control showed reductions in pro-tumor regulatory T cells in the peripheral blood and tumor tissue compared to those with progressive disease;
- Patients achieving disease control showed increased activation of anti-cancer CD8+ T cells in the peripheral blood compared to those with progressive disease; and
- Pelareorep-pembrolizumab combination therapy was found to be well tolerated, with most treatment-related adverse events being grade 1 or 2.

CAR T preclinical activities

In February 2021, we published results at the CAR-TCR Summit Europe 2021, in collaboration with investigators at the Mayo Clinic, showing that loading CAR T cells with pelareorep vastly improved their persistence and efficacy in a murine solid tumor model in contrast to preclinical studies using intratumoral infection with the VSV oncolytic virus that weakened CAR T cells. For the remainder of the year, we continued with ongoing and initiated new collaboration activities to develop and evaluate pelareorep and CAR T cell combination therapy.

Other preclinical activities

In September 2021, we published preclinical data demonstrating the synergistic immunotherapeutic effects of pelareorep combined with radiotherapy in a murine cancer model at The International Conference on Immunotherapy Radiotherapy Combinations.

- Results showed that combining pelareorep and radiotherapy led to an increase in the number of infiltrating anti-cancer CD8+ T cells and prolonged survival, this was seen in the primary tumor that received treatment and in a secondary tumor that was on the other side of the body.
- Compared to single-agent radiotherapy, the pelareorep-radiotherapy combination led to a numerical increase in survival, which reached statistical significance when anti-PD-1 therapy was added to the treatment regimen.

In December 2021, we published preclinical data demonstrating the synergistic anti-leukemic effects of pelareorep combined with the chemotherapeutic agent azacitidine at the 2021 American Society of Hematology (ASH) Annual Meeting. Key data and conclusions included:

- Compared to either treatment alone, treatment with pelareorep plus azacitidine led to a statistically significant reduction ($p<0.01$) in tumor burden in a leukemia xenograft mouse model;
- Compared to either treatment alone, treatment with pelareorep plus azacitidine led to a statistically significant ($p<0.001$) synergistic enhancement of anti-leukemic activity against AML cell lines, a benefit that was confirmed in AML patient samples in vitro; and
- The combination of pelareorep and azacitidine dramatically upregulated multiple genes known to drive anti-cancer immune responses such as IFNβ1, BATF2, IL-12β, CCL2, TLR3, and PD-L1.

Post 2021 Developments

In January 2022, we completed enrollment for the three-patient safety run-ins for two of the four cohorts (first-line metastatic pancreatic and third-line metastatic colorectal cancer) in our GOBLET study. The safety-run in for the pancreatic cancer cohort was successfully completed in February 2022 following evaluation by the study's Data Safety Monitoring Board, while the safety run-in for the colorectal cancer remained ongoing.

In January 2022, Adlai advanced to the second of the three dose escalation cohorts of the bridging clinical trial after dosing in the first dose escalation cohort was completed with no safety issues reported. The second dose escalation cohort is the equivalent dose that was administered in the IND.213 study, which reported a near doubling of overall survival with pelareorep treatment in HR+/HER2- breast cancer patients.

Manufacturing and Process Development

Throughout 2021, we continued distribution and storage activities, sourcing materials required for our planned product fills, and conducted various routine tests related to product fills. As well, we continued our activities to maintain clinical and commercial production capabilities to manufacture pelareorep at the 100-liter scale. Ongoing bulk manufacturing and expanded filling capabilities are both part of the process validation master plan. Process validation is required to ensure that the resulting product meets required specifications and quality standards and will form part of our submission to regulators, including the The United States Food and Drug Administration ("FDA"), for product approval.

Intellectual Property

At the end of 2021, we had been issued 310 patents, including 28 US and 14 Canadian patents, as well as issuances in other jurisdictions. We have an extensive patent portfolio covering the oncolytic reovirus that we use in our clinical trial program including a composition of matter patent that expires in 2028. Our patent portfolio also includes methods for treating proliferative disorders using modified adenovirus, HSV, parapoxvirus and vaccinia virus.

Financing Activity

U.S. "at-the-market" equity distribution agreement
In 2021, we sold 8,401,029 common shares for gross proceeds of US$27,158,080 at an average price of US$3.23. We received, net of commissions of US$814,743, proceeds of US$26,343,337. In total, we incurred share issue costs (including commissions) of $1,256,280.

Warrant exercise
In 2021, 201,722 warrants in connection with our August 2019 underwritten public offering were exercised for gross proceeds of US$181,550.

Financial Impact

We had estimated that our cash requirements for 2021 to fund operations for the year would be between $23 - $25 million. Our actual cash usage for the year was $22,434,009 for operating activities, $285,948 for the acquisition of property and equipment, and $365,510 for the payment of office leases. Our net loss for the year was $26,304,279.

Cash Resources

We ended 2021 with cash and cash equivalents totaling $41,262,044 (see *"Liquidity and Capital Resources")*.

Expected Pelareorep Development For 2022

Our planned 2022 development activity for pelareorep focuses on our clinical development plan along with our manufacturing and intellectual property programs. Our primary 2022 clinical objectives will focus on BRACELET-1 and GOBLET enrollment, and the assessment of our clinical data to help form the nature of our registration strategy, our path to approval and other possible clinical development opportunities. While we are making every effort to maintain the timing of our future milestones, the full impact of the COVID-19 pandemic on these milestones is not known. Patient safety is our foremost concern and we will provide updates as they become known.

Our 2022 manufacturing program includes assessing a process development plan investigating application of single-use equipment to our drug substance production process, and to complete a manufacturing production run. We also expect to fill products and perform the associated analytical testing, carry out process development activities as well as labeling, packaging and shipping of pelareorep to our various clinical sites for ongoing and upcoming activities. These activities are consistent with our process validation master plan. Finally, our intellectual property program includes filings for additional patents along with monitoring activities required to protect our patent portfolio.

We currently estimate the cash requirements to fund our operations for 2022 will be approximately $28 - $33 million but will depend on our ultimate clinical program. (see *"Liquidity and Capital Resources"*).

Our Accounting Policies

In preparing our financial statements, we use IFRS as issued by the International Accounting Standards Board. IFRS requires that we make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available in selecting our accounting policies. Our selection of accounting policies, along with our estimates and assumptions affect the reported amounts of our assets and liabilities at the date of the financial statements and the reported amounts of expenses during the periods presented.

Critical Accounting Policies

In preparing our financial statements, we are required to make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates and assumptions affect the reported amounts of assets at the date of the financial statements and the reported amounts of expenses during the periods presented. Significant estimates are used for, but not limited to, the treatment of our research and development expenditures, revenue recognition, the calculation of share-based compensation and warrant derivative (see Note 4 "*Significant Judgments, Estimates and Assumptions*") of our audited consolidated financial statements.

The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

Research and Development

Research and development costs are expensed as incurred, net of recoveries. We record accruals for the estimated costs of our research and development activities performed by third parties. The financial terms of the agreements with our vendors are subject to negotiation, vary from contract to contract, and may result in uneven payment flows to our vendors. Advance payments for goods or services that will be used or rendered for future research and development activities are capitalized as prepaid expenses and recognized as expense as the related goods are delivered or the related services are performed. We base our estimates on the best information available at the time. However, additional information may become available to us which may allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods.

Development costs that meet specific criteria related to technical, market and financial feasibility will be capitalized. To date, all development costs have been expensed.

Revenue recognition

Revenue relates to a long-term contract associated with the Licensing Agreement with Adlai Nortye Biopharma Co., Ltd. The pricing for the contract was based on the specific negotiations with Adlai and includes non-refundable upfront license fees, development and regulatory milestone payments, royalties, and sales-based milestone payments. We account for a contract with a customer when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance, and collectability of consideration is probable.

Under the Licensing Agreement, we have granted a regional license to our intellectual property. The granting of this license is accounted for as one performance obligation. We have determined that we provide Adlai with a right to access our intellectual property, and therefore recognize revenue related to the upfront license fee over time. Revenue is recognized based on the extent of progress towards completion of the performance obligation using the input method. Under the input method, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. We use this method because Adlai receives and consumes the benefit of our intellectual property as we undertake activities that impact the intellectual property. Management must use judgment in making assumptions and estimates regarding total estimated costs, the complexity of the work to be performed, and the length of time to complete the performance obligation, among other variables.

The contract also provides for development and regulatory milestone payments, royalties, and sales-based milestone payments. These amounts are contingent on the occurrence of a future event and therefore give rise to variable consideration. We estimate variable consideration at the most likely amount to which we expect to be entitled. We include estimated amounts in the transaction price when it becomes highly probable that the amount will not be subject to significant reversal when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of our anticipated performance

and all information (historical, current and forecasted) that is reasonably available to us. Based on this information and related analysis, any quarterly adjustments to revenue are recognized as necessary in the period they become known.

Accounting Standards and Interpretations Issued but Not Yet Effective

IAS 1 *Presentation of Financial Statements*
In February 2021, the IASB issued amendments to IAS 1 *Presentation of Financial Statements* and IFRS Practice Statement 2 *Making Materiality Judgements* in which it provides guidance and example to help entities apply materiality judgements to accounting policy disclosures. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with earlier application permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*
In February 2021, the IASB issued amendments to IAS 8, in which it introduces a new definition of 'accounting estimates'. The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, the amendments clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with earlier application permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

IAS 12 *Income Taxes*
In May 2021, the IASB issued amendments to IAS 12, which narrows the scope of the initial recognition exception under IAS 12, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with earlier application permitted. The amendments apply prospectively to transactions that occur on or after the beginning of the earliest comparative period presented. We are assessing the impact of adopting this standard on our consolidated financial statements.

Significant Estimates

Revenue recognition
We entered into a Licensing Agreement which provides, among other payments, for upfront license fees in exchange for a regional license to our intellectual property. Management uses its judgment in applying the input method when determining the extent of progress towards completion of the performance obligation. Revenue recognition requires assumptions and estimates regarding total estimated costs, the complexity of the work to be performed, and the length of time to complete the performance obligation, among other variables.

Clinical trial expenses
Clinical trial expenses represent a significant component of our research and development expenses and we outsource a significant portion of these activities to third-party contract research organizations. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows to these organizations. Payments under the contracts depend on factors such as the achievement of certain events, successful enrollment of patients, and completion of certain clinical trial activities. As part of preparing our audited consolidated financial statements, we estimate the expense to recognize based on services that have been performed by the contract research organizations. When making these estimates, we use operational and contractual information from third-party service providers, operational data from internal personnel, and considerable judgment. We base our estimates on the best information available at the time. However, additional information may become available to us which may allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods when the actual level of activity becomes more certain. Such increases or decreases in cost are generally considered to be changes in estimates and will be reflected in research and development expenses in the period identified.

Valuation of share-based compensation
Estimating fair value for stock options granted requires determining the most appropriate valuation model which is dependent on the terms and conditions of the grant. We have chosen to use the Black-Scholes valuation model (“Black-Scholes” or the “Model”) to calculate the fair value of our stock options. Black-Scholes is currently widely used and accepted by other publicly traded companies. Therefore, we have concluded that Black-Scholes is the appropriate option pricing model to use for our stock options at this time. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life, share price volatility, and dividend yield, and making assumptions about them. The assumptions and inputs used for estimating fair value for stock options granted issued are disclosed in Note 10 of our audited consolidated financial statements. Consequently, in complying with IFRS and selecting what we believe are the most appropriate assumptions under

the circumstances, we have recorded non-cash share-based compensation expense for the year of $3,825,901. However, given the above discussion, these amounts could have been different and still be in accordance with IFRS.

Valuation of warrant derivative
Estimating fair value of the warrant derivative at initial measurement, at each exercise date and at each reporting period requires determining the most appropriate valuation model. We have chosen to use Black-Scholes to calculate the fair value of our warrant derivative. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life, share price volatility, and dividend yield, and making assumptions about them. The assumptions and inputs used for estimating fair value for warrant derivative are disclosed in Note 8 of our audited consolidated financial statements. Consequently, in complying with IFRS and selecting what we believe are the most appropriate assumptions under the circumstances, we have recorded a non-cash change in fair value of warrant derivative for the year of $17,117. However, given the above discussion, these amounts could have been different and still be in accordance with IFRS.

Income taxes
Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Currently, we are accumulating tax loss carry forward balances in various tax jurisdictions creating a deferred tax asset. Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.

To date we have determined that none of our deferred tax assets should be recognized. Our deferred tax assets are mainly comprised of our net operating losses from prior years, prior year research and development expenses, and non-refundable investment tax credits. These tax pools relate to entities that have a history of losses, have varying expiry dates, and may not be used to offset taxable income within our other subsidiaries. As well, there are no taxable temporary differences or any tax planning opportunities available that could partly support the recognition of these losses as deferred tax assets.

Leases
We make judgments in determining whether a contract contains an identified asset. The identified asset should be physically distinct or represent substantially all of the capacity of the asset, and should provide us with the right to substantially all of the economic benefits from the use of the asset.

We also make judgments in determining whether or not we have the right to control the use of the identified asset. We have that right when we have the decision-making rights that are most relevant to changing how and for what purpose the asset is used. In cases where the decisions about how and for what purpose the asset is used are predetermined, we have the right to direct the use of the asset if we have the right to operate the asset or if we designed the asset in a way that predetermines how and for what purpose the asset will be used.

We make judgments in determining the incremental borrowing rate used to measure our lease liability for each lease contract, including an estimate of the asset-specific security impact. The incremental borrowing rate should reflect the interest that we would have to pay to borrow at a similar term and with a similar security.

Selected Annual Information

	2021	2020	2019
Revenue	**$ —**	$ —	$ —
Consolidated net loss[1][2]	**$ (26,304,279)**	$ (22,505,057)	$ (33,122,888)
Basic and diluted loss per share[2][3]	**$ (0.49)**	$ (0.56)	$ (1.50)
Total assets[3]	**$ 45,880,191**	$ 34,345,567	$ 19,657,865
Cash dividends declared per share[4]	**Nil**	Nil	Nil

Notes:

(1) Included in consolidated net loss and loss per common share for 2021 is a non-cash change in fair value of warrant derivative gain of $17,117 (2020 - gain of $3,491,928; 2019 - loss of $12,608,808).

(2) Included in consolidated net loss and loss per common share for 2021, 2020, and 2019 are share-based compensation expenses of $3,825,901, $2,558,974 and $1,470,153, respectively.

(3) We issued 8,876,809 common shares for net cash proceeds of $33.4 million in 2021 (2020 - 13,968,527 common shares for net cash proceeds of $40.2 million; 2019 - 14,798,704 common shares for net cash proceeds of $21.5 million).

(4) We have not declared or paid any dividends since incorporation.

Results of Operations

Net loss for the year was $26,304,279 compared to $22,505,057 and $33,122,888 for the years ended December 31, 2020 and December 31, 2019, respectively.

Research and Development Expenses ("R&D")

	2021	2020	2019
Clinical trial expenses	**$ 3,204,862**	$ 3,054,869	$ 2,189,622
Manufacturing and related process development expenses	**1,546,826**	3,384,172	3,776,288
Intellectual property expenditures	**617,631**	906,657	827,375
Translational science expenses	**672,653**	317,757	143,966
Personnel-related, share-based compensation, and other expenses	**6,878,399**	5,281,055	3,880,746
Research and development expenses	**$ 12,920,371**	$ 12,944,510	$ 10,817,997

Clinical Trial

Clinical trial expenses include those costs associated with our clinical trial program which primarily included expenses related to the preparation and development of our breast cancer program, as well as immunotherapy combinations in other selected cancers. Included in clinical trial expenses are regulatory and consulting activities, contract research organization expenses, data management expenses, and other costs associated with our clinical trial program.

	2021	2020	2019
Clinical trial expenses	**$ 3,204,862**	$ 3,054,869	$ 2,189,622

During 2021, our clinical trial expenses were $3,204,862 compared to $3,054,869 and $2,189,622 for the years ended December 31, 2020 and December 31, 2019, respectively. In all three years, our clinical trial program focused mainly on developing our breast cancer program. In 2021 and 2020, these activities included AWARE-1 direct patient costs and data analysis costs, as well as our portion (net of Pfizer's contribution) of costs related to BRACELET-1 trial initiation, patient enrollment, treatment, and data analysis. In 2019, costs related to developing our breast cancer program included startup activities and patient enrollment and treatment for AWARE-1, as well as our portion (net of Pfizer's contribution) of trial initiation activities related to BRACELET-1. We also incurred costs to complete our supporting regulatory documents and key opinion leader activities.

In 2021, we also incurred costs related to GOBLET trial initiation, patient enrollment and treatment, as well as costs related to our ongoing ISTs and data management consultants. In 2020, our other clinical activities included GOBLET study initiation expenses, costs related to our ongoing ISTs, data management consultant costs, and close-out costs related to our fully enrolled legacy clinical trials. In 2019, our other clinical activities included costs related to closing out our fully enrolled legacy clinical trials and an ongoing IST in pancreatic cancer.

We expect our clinical trial expenses to increase in 2022 compared to 2021. During 2022, we will focus on BRACELET-1 and GOBLET enrollment, and the assessment of our clinical data to help form the nature of our registration strategy, our path to approval and possible other clinical development opportunities.

Manufacturing & Related Process Development ("M&P")

M&P expenses include product manufacturing and process development activities. Product manufacturing expenses include third-party direct manufacturing costs, quality control testing, fill, label, packaging, and storage costs. Process development expenses include costs associated with studies that examine components of our manufacturing and analytical processes looking for improvements and costs associated with the creation of our process validation master plan and related conformity testing.

	2021	2020	2019
Product manufacturing expenses	**$ 1,272,816**	$ 3,237,960	$ 3,535,632
Process development expenses	**274,010**	146,212	240,656
Manufacturing and related process development expenses	**$ 1,546,826**	$ 3,384,172	$ 3,776,288

Our M&P expenses for 2021 were $1,546,826 compared to $3,384,172 and $3,776,288 for the years ended December 31, 2020 and December 31, 2019. In 2021, our product manufacturing costs primarily related to shipping and storage costs of our bulk and vialed product, sourcing materials required for our planned product fills in the upcoming years, as well as various routine tests related to product fills. In 2020, our product manufacturing costs primarily related to the completion of a current Good Manufacturing Practices ("cGMP") production run, two product fills and the associated consulting and testing expenses, as well as shipping and storage costs of our bulk and vialed product. In 2019, our product manufacturing costs primarily related to the completion of training and engineering production runs and the associated product testing, shipping and storage costs of our bulk and vialed product, and an ongoing product fill.

Our process development expenses for 2021 were $274,010 compared to $146,212 and $240,656 for the years ended December 31, 2020 and December 31, 2019, respectively. During 2021 and 2020, our process development activities focused on analytical development and stability studies. During 2019, our process development activities focused on analytic development studies.

We expect our M&P expenses for 2022 to increase compared to 2021. In 2022, we intend to assess a process development plan investigating application of single-use equipment to our drug substance production process and expect to complete a manufacturing production run. We also expect to fill products and perform the associated analytical testing, carry out process development activities, as well as labeling, packaging and shipping of pelareorep to our various clinical sites for ongoing and upcoming activities. These activities are consistent with our process validation master plan.

Intellectual Property

Intellectual property expenses include legal and filing fees associated with our patent portfolio.

	2021	2020	2019
Intellectual property expenses	**$ 617,631**	$ 906,657	$ 827,375

Our intellectual property expenses for 2021 were $617,631 compared to $906,657 and $827,375 for the years ended December 31, 2020 and December 31, 2019, respectively. The change in intellectual property expenditures in 2021 compared to 2020 and 2019 mainly reflected the lapsing of non-core patents in certain jurisdictions and foreign exchange fluctuations. At the end of 2021, we had been issued over 310 patents, including 28 U.S. and 14 Canadian patents, as well as issuances in other jurisdictions.

We expect that our intellectual property expenses will remain consistent in 2022 compared to 2021.

Translational Science

Translational science expenses are intended to expand our intellectual property related to pelareorep and identify potential licensing opportunities arising from our technology base.

	2021	2020	2019
Translational science expenses	**$ 672,653**	$ 317,757	$ 143,966

During 2021, our translational science expenses were $672,653 compared to $317,757 and $143,966 for the years ended December 31, 2020 and December 31, 2019, respectively. In all three years, our translational science expenses included studies investigating the interaction of the immune system with pelareorep, including CAR T therapy and bispecific antibodies in 2021.

We expect that our translational science expenses in 2022 will increase compared to 2021. We expect to complete our ongoing activities carried over from 2021 and will continue to be selective in the types of new program we enter into in 2022.

Personnel-Related, Share-Based Compensation, and Other Expenses

	2021	2020	2019
R&D personnel-related expenses	**$ 4,754,043**	$ 4,135,300	$ 3,096,231
Share-based compensation	**2,086,608**	1,043,373	561,420
Other R&D expenses	**37,748**	102,382	223,095
Personnel-related, share-based compensation, and other expenses	**$ 6,878,399**	$ 5,281,055	$ 3,880,746

In 2021, our personnel-related, share-based compensation. and other expenses were $6,878,399 compared to $5,281,055 and $3,880,746 for the years ended December 31, 2020 and December 31, 2019, respectively.

The change in R&D personnel-related expenses in 2021 compared to 2020 was due to a change in salary level and an increase in headcount as we expanded our U.S. office, partly offset by lower recruitment-related costs. The change in R&D personnel-related expenses in 2020 compared to 2019 was due to an increase in headcount as we expanded our U.S. office, recruitment-related costs and a change in salary level, partly offset by personnel cost recovery from Pfizer related to BRACELET-1.

The change in non-cash share-based compensation in 2021 compared to 2020 was primarily due to the vesting of options previously granted to officers, employees and consultants. The change in non-cash share-based compensation in 2020 compared to 2019 was primarily due to the vesting of a higher number of options granted with a higher grant date fair value in 2020.

The change in Other R&D expenses over the three years was primarily due to decreased travel expenses as a result of COVID-19.

We expect our personnel-related, share-based compensation and other expenses to increase in 2022 compared to 2021 as we look to continue expanding our U.S. office.

Operating Expenses

	2021	2020	2019
Public company-related expenses	**$ 8,161,439**	$ 7,432,418	$ 5,089,918
Office expenses	**2,961,777**	3,120,290	3,074,416
Share-based compensation	**1,739,293**	1,515,601	908,733
Depreciation - property and equipment	**130,243**	88,957	122,982
Depreciation - right-of-use assets	**321,822**	357,230	362,592
Operating expenses	**$ 13,314,574**	$ 12,514,496	$ 9,558,641

Public company-related expenses include costs associated with investor relations, business development and financial advisory activities, legal and accounting fees, corporate insurance, director fees and transfer agent, and other fees relating to our U.S. and Canadian stock listings. In 2021, we incurred public company-related expenses of $8,161,439 compared to $7,432,418 and $5,089,918 for the years ended December 31, 2020 and December 31, 2019, respectively. The change in public company-related expenses in 2021 compared to 2020 was primarily due to increased directors and officers insurance premiums and increased investor relations activities, partly offset by lower business development consulting activities. The change in public company-related expenses in 2020 compared to 2019 was primarily due to increased directors and officers insurance premiums, increased investor relations and business development activities, and the associated professional expenses. This is partly offset by decreased travel related expenses as a result of COVID-19 and transaction costs of $233,143 incurred in 2019 related to our August 2019 public offering (see Note 9 of our audited consolidated financial statements).

Office expenses include compensation costs (excluding share-based compensation), rent related to short-term leases, and other office-related costs. In 2021, we incurred office expenses of $2,961,777 compared to $3,120,290 and $3,074,416 for the years ended December 31, 2020 and December 31, 2019, respectively. The change in office expense in 2021 compared to 2020 was primarily due to costs associated with changes in personnel in 2020. The change in office expenses in 2020 compared to 2019 was primarily due to the timing of filling open positions in our U.S. office and a change in salary level.

The change in non-cash share-based compensation in 2021 compared to 2020 was primarily due to the vesting of options that were previously granted to officers, employees, consultants, and independent board members. This is partly offset by a lower number of vesting share awards granted to independent board members as a result of a change in compensation arrangement.

The change in non-cash share-based compensation in 2020 compared to 2019 was primarily due to the vesting of a higher number of options granted with a higher grant date fair value in 2020.

We expect our operating expenses in 2022 to increase compared to 2021.

Change in Fair Value of Warrant Derivative

We issued warrants in connection with our August 2019 underwritten public offering. Warrants issued with an exercise price denominated in a foreign currency are reported as a liability until they are exercised or expire. These warrants are adjusted to fair value at each exercise date and at each reporting period and any change in fair value is recorded in the consolidated statements of loss and comprehensive loss. Gains and losses resulting from the revaluation of the warrant derivative are non-cash and do not impact our cash flows.

	2021	2020	2019
Change in fair value of warrant derivative	**$ 17,117**	$ 3,491,928	$ (12,608,808)

For the year ended December 31, 2021, we recognized a gain of $17,117 on the change in fair value of our warrant derivative compared to a gain of $3,491,928 and a loss of $12,608,808 for the years ended December 31, 2020 and December 31, 2019, respectively. The change in fair value in 2021 and 2020 was based on several factors, including changes in market price of our shares, and the revaluation on warrants exercised. The change in fair value in 2019 was based on several factors, including changes in the market price, the revaluation on warrants exercised, as well as a decrease in the remaining term of the warrants and changes in estimated future volatility of our common shares. The number of outstanding warrants was 64,035, 265,757, and 1,684,126 as at December 31, 2021, December 31, 2020, and December 31, 2019, respectively.

Foreign Exchange Loss

	2021	2020	2019
Foreign exchange loss	**$ (135,636)**	$ (659,173)	$ (316,719)

For the year ended December 31, 2021, our foreign exchange loss was $135,636 compared to a loss of $659,173 and a loss of $316,719 for the years ended December 31, 2020 and December 31, 2019, respectively. The foreign exchange loss incurred in all three years was primarily due to unrealized translation loss on U.S. dollar denominated cash balances.

Summary of Quarterly Results

(in thousands, except per share data)

	2021				2020			
	Dec.	**Sept.**	**June**	**March**	**Dec.**	**Sept.**	**June**	**March**
Revenue	—	—	—	—	—	—	—	—
Net (loss) income[(1)(2)]	(7,751)	(4,872)	(7,246)	(6,435)	(9,329)	(6,749)	(6,827)	400
Basic (loss) earnings per common share[(1)(2)]	$ (0.14)	$ (0.09)	$ (0.13)	$ (0.13)	$ (0.21)	$ (0.16)	$ (0.17)	$ 0.01
Diluted loss per common share[(3)]	$ (0.14)	$ (0.09)	$ (0.13)	$ (0.13)	$ (0.21)	$ (0.16)	$ (0.17)	$ (0.04)
Total assets[(4)]	45,880	52,593	56,309	54,180	34,346	31,242	34,604	34,553
Total cash[(4)]	41,262	48,087	50,799	50,362	31,220	26,711	29,911	30,567
Total long-term debt	—	—	—	—	—	—	—	—
Cash dividends declared[(5)]	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil

(1) Included in consolidated net (loss) income and (loss) earnings per common share between December 2021 and January 2020 are non-cash change in fair value of warrant derivative gain (loss) of $49,522, $52,216, $80,159, $(164,780), $(213,168), $60,264, $(507,150), and $4,151,982, respectively.

(2) Included in net (loss) income and (loss) earnings per common share between December 2021 and January 2020 are quarterly share-based compensation expenses of $1,128,663, $1,006,920, $1,032,242, $658,076, $1,704,453, $201,076, $260,640 and $392,805, respectively.

(3) Q1 2020 included the effect of dilutive warrant derivative, stock options and share awards. For all other periods presented, the effect of any potential exercise of our stock options and warrants outstanding during the year has been excluded from the calculation of diluted loss per common share, as it would be anti-dilutive.

(4) We issued 8,876,809 common shares for net cash proceeds of $33.4 million in 2021 (2020 - 13,968,527 common shares for net cash proceeds of $40.2 million).

(5) We have not declared or paid any dividends since incorporation.

Fourth Quarter

Statement of loss for the three months ended December 31, 2021 and 2020 was as follows:

	2021	**2020**
Expenses		
Research and development	**$ 3,679,471**	$ 4,061,464
Operating	**3,775,386**	4,010,894
Loss before the following	**(7,454,857)**	(8,072,358)
Change in fair value of warrant derivative	**49,522**	(213,168)
Foreign exchange loss	**(325,800)**	(1,052,531)
Interest income, net	**22,155**	9,385
Loss before income taxes	**(7,708,980)**	(9,328,672)
Income tax expense	**(42,276)**	—
Net loss	**(7,751,256)**	(9,328,672)
Other comprehensive loss - translation adjustment	**(18,712)**	(144,433)
Net comprehensive loss	**$ (7,769,968)**	$ (9,473,105)
Basic and diluted loss per common share	**$ (0.14)**	$ (0.21)
Weighted average number of shares (basic and diluted)	**55,025,655**	44,108,936

Fourth Quarter Review of Operations

Net loss for the three months ended December 31, 2021 was $7,751,256 compared to $9,328,672 for the three months ended December 31, 2020.

Research and Development Expenses ("R&D")

	2021	2020
Clinical trial expenses	**$ 627,976**	$ 1,200,998
Manufacturing and related process development expenses	**269,776**	434,943
Intellectual property expenditures	**92,868**	106,940
Translational science expenses	**222,138**	70,815
Personnel-related, share-based compensation, and other expenses	**2,466,713**	2,247,768
Research and development expenses	**$ 3,679,471**	$ 4,061,464

Clinical Trial Expenses

	2021	2020
Clinical trial expenses	**$ 627,976**	$ 1,200,998

During the fourth quarter of 2021, our clinical trial expenses were $627,976 compared to $1,200,998 for the fourth quarter of 2020. In the fourth quarter of 2021, our clinical trial costs mainly related to our portion (net of Pfizer's contribution) of BRACELET-1 patient enrollment and treatment activities, GOBLET startup and patient enrollment and treatment activities, as well as costs related to our ongoing ISTs and data management consultants. In the fourth quarter of 2020, our clinical trial costs mainly related to AWARE-1 patient enrollment and treatment and data analysis activities, our portion (net of Pfizer's contribution) of BRACELET-1 patient enrollment and treatment activities, GOBLET trial initiation activities, as well as costs related to our ongoing ISTs and data management consultants.

Manufacturing & Related Process Development Expenses ("M&P")

	2021	2020
Product manufacturing expenses	**$ 155,094**	$ 399,522
Process development expenses	**114,682**	35,421
Manufacturing and related process development expenses	**$ 269,776**	$ 434,943

During the fourth quarter of 2021, our M&P expenses were $269,776 compared to $434,943 for the fourth quarter of 2020. During the fourth quarter of 2021, our product manufacturing costs mainly related to shipping and storage costs of our bulk and vialed product. During the fourth quarter of 2020, our product manufacturing costs mainly related to shipping and storage costs of our bulk and vialed product, as well as costs related to a product fill and product test.

Our process development activity for the fourth quarters of 2021 and 2020 related to analytic development studies.

Intellectual Property Expenses

	2021	2020
Intellectual property expenses	**$ 92,868**	$ 106,940

Our intellectual property expenses for the fourth quarter of 2021 were $92,868 compared to $106,940 for the fourth quarter of 2020. At the end of the fourth quarter of 2021, we had been issued over 310 patents, including 28 U.S. and 14 Canadian patents, as well as issuances in other jurisdictions.

Translational Science

	2021	2020
Translational science expenses	**$ 222,138**	$ 70,815

Our translational science expenses were $222,138 for the fourth quarter of 2021 compared to $70,815 for the fourth quarter of 2020. During the fourth quarters of 2021 and 2020, our translational science activities were primarily focused on studies investigating the interaction of the immune system and pelareorep, including CAR T therapy and bispecific antibodies in 2021.

Personnel-Related, Share-Based Compensation and Other Expenses

	2021	2020
R&D personnel-related expenses	**$ 1,847,924**	$ 1,406,242
Share-based compensation	**616,039**	817,601
Other R&D expenses	**2,750**	23,925
Personnel-related, share-based compensation, and other expenses	**$ 2,466,713**	$ 2,247,768

Our other research and development expenses were $2,466,713 in the fourth quarter of 2021 compared to $2,247,768 in the fourth quarter of 2020. The change in our R&D personnel-related expenses in the fourth quarter of 2021 compared to the fourth quarter of 2020 was primarily due to salary adjustments and an increase in headcount as we expand our U.S. office.

The change in non-cash share-based compensation in the fourth quarter of 2021 compared to 2020 was primarily due to the vesting of options previously granted to officers, employees, and consultants.

Operating Expenses

	2021	2020
Public company-related expenses	**$ 2,094,793**	$ 2,037,925
Office expenses	**1,070,994**	978,484
Share-based compensation	**512,624**	886,852
Depreciation - property and equipment	**23,264**	21,437
Depreciation - right-of-use assets	**73,711**	86,196
Operating expenses	**$ 3,775,386**	$ 4,010,894

Our operating expenses for the fourth quarter of 2021 were $3,775,386 compared to $4,010,894 for the fourth quarter of 2020. Public company-related expenses include costs associated with investor relations, business development and financial advisory activities, legal and accounting fees, corporate insurance, director fees, and transfer agent and other fees relating to our Canadian and U.S. stock listings. During the fourth quarter of 2021, our public company-related expenses of $2,094,793 remained consistent with $2,037,925 for the fourth quarter of 2020.

Office expenses include compensation costs (excluding share-based compensation), rent related to short-term leases, and other office-related costs. During the fourth quarter of 2021, our office expenses were $1,070,994 compared to $978,484 for the fourth quarter of 2020. The change in the fourth quarter of 2021 compared to the fourth quarter of 2020 was primarily due to a change in salary level.

The change in non-cash share-based compensation in the fourth quarter of 2021 compared to 2020 was primarily due to a lower number of vesting share awards granted to independent board members as a result of a change in compensation arrangement.

Change in Fair Value of Warrant Derivative

We issued warrants in connection with our August 2019 underwritten public offering. Warrants issued with an exercise price denominated in a foreign currency are reported as a liability until they are exercised or expire. These warrants are adjusted to fair value at each exercise date and at each reporting period and any change in fair value is recorded in the consolidated

statements of loss and comprehensive loss. Gains and losses resulting from the revaluation of the warrant derivative are non-cash and do not impact our cash flows.

	2021	2020
Change in fair value of warrant derivative	**$ 49,522**	$ (213,168)

In the fourth quarter of 2021, we recognized a gain of $49,522 on the change in fair value of our warrant derivative compared to a loss of $213,168 in the fourth quarter of 2020. The change in fair value in the fourth quarter of 2021 was a result of several factors, including changes in the market price of our shares. The change in fair value in the fourth quarter of 2020 was based on several factors including changes in the market price of our shares. The number of outstanding warrants was 64,035 and 265,757 as at December 31, 2021 and December 31, 2020, respectively.

Foreign Exchange Loss

	2021	2020
Foreign exchange loss	**$ (325,800)**	$ (1,052,531)

Our foreign exchange loss was $325,800 for the fourth quarter of 2021 compared to a loss of $1,052,531 for the fourth quarter of 2020. The foreign exchange loss incurred in 2021 and 2020 was primarily due to unrealized translation loss on U.S. dollar denominated cash balance.

Liquidity and Capital Resources

2021 Financing Activities

U.S. "at-the-market" equity distribution agreement

In 2021, we sold 8,401,029 common shares for gross proceeds of US$27,158,080 at an average price of US$3.23. We received, net of commissions of US$814,743, proceeds of US$26,343,337. In total, we incurred share issue costs (including commissions) of $1,256,280.

Warrant exercise

In 2021, 201,722 warrants in connection with our August 2019 underwritten public offering were exercised for gross proceeds of US$181,550.

2020 Financing Activities

U.S. "at-the-market" equity distribution agreement

In 2020, we sold 12,182,532 common shares for gross proceeds of US$30,167,117 at an average price of US$2.48. We received, net of commissions of US$905,013, proceeds of US$29,262,104. In total, we incurred share issue costs (including commissions) of $1,741,640.

Warrant exercise

In 2020, 1,418,369 warrants in connection with our August 2019 underwritten public offering were exercised for gross proceeds of US$1,276,532.

Liquidity

As at December 31, 2021 and 2020, we had cash and cash equivalents positions and working capital ratios as follows:

	2021	2020
Cash and cash equivalents	**$ 41,262,044**	$ 31,219,574
Working capital ratio	**16.69**	12.45

We define working capital ratio as current assets divided by current liabilities, as presented on our audited consolidated statement of financial position. The increase in our cash and cash equivalent reflects the cash usage from our operating

activities of $22.4 million, $0.3 million for the acquisition of property and equipment, $0.4 million for the payment of office leases along with the cash provided by our financing activities of $33.4 million for the year ended December 31, 2021.

We desire to maintain adequate cash reserves to support our planned activities which include our clinical trial program, product manufacturing, administrative costs, and our intellectual property expansion and protection. To do so, we estimate our future cash requirements by preparing a budget and a multi-year plan annually for review and approval by our Board. The budget establishes the approved activities for the upcoming year and estimates the costs associated with these activities. The multi-year plan estimates future activity along with the potential cash requirements and is based on our assessment of our current clinical trial progress along with the expected results from the coming year's activity. Budget to actual variances are prepared and reviewed by management and are presented quarterly to the Board.

As we are a development-stage biopharmaceutical company, we have not been profitable since our inception and expect to continue to incur substantial losses as we continue research and development efforts. We do not expect to generate significant revenues until, and unless, pelareorep becomes commercially viable. To date, we have funded our operations mainly through the issue of additional capital via public and private offerings and through the exercise of warrants and stock options. In 2021, we were able to raise funds through our U.S. ATM.

We have no assurances that we will be able to raise additional funds through the sale of our common shares, consequently, we will continue to evaluate all types of financing arrangements. On June 12, 2020, we renewed our short form base shelf prospectus (the "Base Shelf") that qualifies for distribution of up to $150 million of common shares, subscription receipts, warrants, or units (the "Securities") in either Canada, the U.S. or both. Under a Base Shelf, we may sell Securities to or through underwriters, dealers, placement agents, or other intermediaries, and also may sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be subject to change, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement.

Renewing our Base Shelf provides us with additional flexibility when managing our cash resources as, under certain circumstances, it shortens the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in our company. Funds received as a result of using our Base Shelf would be used in line with our Board approved budget and multi-year plan. Our renewed Base Shelf will be effective until July 12, 2022.

Our Base Shelf allowed us to enter into our ATM equity distribution agreement in June 2020 and March 2021 (see Note 9 of our audited consolidated financial statements). We will use these equity arrangements to assist us in achieving our capital objective. These arrangements provide us with the opportunity to raise capital and better manage our cash resources. Our current ATM equity distribution agreement provide us with access to, subject to terms and conditions, US$80 million of which we have raised gross proceeds of approximately US$8.7 million at December 31, 2021. We expect to continue to access our equity arrangement to help support our current clinical trial, manufacturing, intellectual property, and translational science programs.

We anticipate that the expected cash usage from our operations in 2022 will be approximately $28 - $33 million. We continue to manage our research and development plan with the objective of ensuring optimal use of our existing resources as we expect to fund our expenditure requirements and commitments with existing working capital. Additional activities continue to be subject to adequate resources, and we believe we will have sufficient cash resources and access to additional cash resources through our equity arrangement to fund our presently planned operations into 2023. Factors that will affect our anticipated cash usage in 2022, and for which additional funding might be required include, but are not limited to, expansion of our clinical trial program, the timing of patient enrollment in our approved clinical trials, the actual costs incurred to support each clinical trial, the number of treatments each patient will receive, the timing of R&D activity with our clinical trial research collaborations, the number, timing and costs of manufacturing runs required to conclude the validation process and supply product to our clinical trial program, and the level of collaborative activity undertaken.

We are not subject to externally imposed capital requirements and there have been no changes in how we define or manage our capital in 2021.

Contractual Obligations and Commitments

The following table summarizes our significant contractual obligations as at December 31, 2021:

	Total	Less than 1 year	2 -3 years	4 - 5 years	More than 5 years
Accounts payable and accrued liabilities	$ 1,987,870	$ 1,987,870	$ —	$ —	$ —
Lease obligations	807,643	372,707	302,720	132,216	—
Total contractual obligations	$ 2,795,513	$ 2,360,577	$ 302,720	$ 132,216	$ —

In addition, we are committed to payments totaling $21,516,576 for activities related to our clinical trial, manufacturing, and translational science programs which are expected to occur over the next three years. We also have potential contingent obligations relating to the completion of our research and development of pelareorep (see Note 14 of our audited consolidated financial statements). The ultimate amount and timing of these payments is subject to changes in our research and development plan.

Off-Balance Sheet Arrangements

As at December 31, 2021, we had not entered into any off-balance sheet arrangements.

Transactions with Related Parties

In 2021, 2020, and 2019, we did not enter into any other related party transactions other than compensation paid to Key Management Personnel disclosed in Note 22 of our audited consolidated financial statements.

Financial Instruments and Other Instruments

Fair value of financial instruments

Our financial instruments consist of cash and cash equivalents, other receivables, accounts payable and accrued liabilities, and warrant derivative. As at December 31, 2021, the carrying amount of our cash and cash equivalents, other receivables, and accounts payable and accrued liabilities approximated their fair value. The warrant derivative is a recurring Level 2 fair value measurement as these warrants have not been listed on an exchange and therefore do not trade on an active market. As at December 31, 2021, the fair value of our warrant derivative was $56,017 (December 31, 2020 - $531,228).

Financial risk management

Credit risk

Credit risk is the risk of financial loss if a counterparty to a financial instrument fails to meet its contractual obligations. We are exposed to credit risk on our cash and cash equivalents and other receivables from Pfizer in connection with the BRACELET-1 study (see Note 13 of our audited consolidated financial statements) in the event of non-performance by counterparties, but we do not anticipate such non-performance. Our maximum exposure to credit risk at the end of the period is the carrying value of our cash and cash equivalents and other receivables.

We mitigate our exposure to credit risk connected to our cash and cash equivalent by maintaining our primary operating and investment bank accounts with Schedule I banks in Canada. For our foreign domiciled bank accounts, we use referrals or recommendations from our Canadian banks to open foreign bank accounts and these accounts are used solely for the purpose of settling accounts payable and accrued liabilities or payroll.

We mitigate our exposure to credit risk connected to our Pfizer other receivable by entering into collaborations with global biopharmaceutical companies.

Interest rate risk

Interest rate risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in market interest rates. We are exposed to interest rate risk through our cash and cash equivalents. We mitigate this risk through our investment policy that only allows investment of excess cash resources in investment grade vehicles while matching maturities with our operational requirements.

Fluctuations in market rates of interest do not have a significant impact on our results of operations due to the short term to maturity of the investments held.

Foreign exchange risk
Foreign exchange risk arises from changes in foreign exchange rates that may affect the fair value or future cash flows of our financial assets or liabilities. We are primarily exposed to the risk of changes in the Canadian dollar relative to the U.S. dollar as a portion of our financial assets and liabilities are denominated in such currency. The impact of a $0.01 increase in the value of the U.S. dollar against the Canadian dollar would have decreased our net comprehensive loss in 2021 by approximately $240,000.

We mitigate our foreign exchange risk by maintaining sufficient foreign currencies, through the purchase of foreign currencies or receiving foreign currencies from financing activities, to settle our foreign accounts payable and accrued liabilities.

Significant balances in foreign currencies at December 31, 2021 are as follows:

	U.S. dollar
Cash and cash equivalents	$ 31,102,844
Other receivables	621,746
Accounts payable and accrued liabilities	(886,891)
	$ 30,837,699

Liquidity risk
Liquidity risk is the risk that we will encounter difficulty in meeting obligations associated with financial liabilities. We manage liquidity risk through the management of our capital structure as outlined in the notes to our audited financial statements. Accounts payable and accrued liabilities are all due within the current operating period.

Other MD&A Requirements

We have 57,112,295 common shares outstanding at March 2, 2022. If all of our options, restricted share units and performance share units (5,379,015), common share purchase warrants with a $9.025 exercise price (16,443,500 warrants exercisable into 1,730,894 common shares), and common share purchase warrants with a US$0.90 exercise price (64,035) were exercised or were to vest, we would have 64,286,239 common shares outstanding.

Our 2021 annual report on Form 20-F will be available on www.sedar.com.

Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures:
Our chief executive and financial officers reviewed and evaluated our disclosure controls and procedures. Based on that evaluation, they have concluded that our disclosure controls and procedures are effective in providing timely material information relating to the Company.

Management's Annual Report on Internal Control Over Financial Reporting:
Our management is responsible for establishing and maintaining adequate internal control over financial reporting, and has designed such internal control over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of financial statements for external purposes in accordance with International Financial Reporting Standards.

Management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls and procedures over financial reporting will prevent all error and all fraud. A control system can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the 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. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving our stated goals under all potential future conditions. Because of the inherent

limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has evaluated the design and operation of our internal control over financial reporting as of December 31, 2021, and has concluded that such internal control over financial reporting is effective as of December 31, 2021. There are no material weaknesses that have been identified by management in this regard. This assessment was based on criteria for effective internal control over financial reporting described in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 Framework).

Changes in Internal Controls over Financial Reporting
There were no changes in our internal control over financial reporting that occurred during the last fiscal year that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Risk Factors Affecting Future Performance

General Risk Factors

Prospects for biotechnology companies in the research and development stage should generally be regarded as speculative. It is not possible to predict, based upon studies in animals, or early studies in humans, whether a new therapeutic will ultimately prove to be safe and effective in humans, or whether necessary and sufficient data can be developed through the clinical trial process to support a successful product application and approval.

If a product is approved for sale, product manufacturing at a commercial scale and significant sales to end users at a commercially reasonable price may not be successful. There can be no assurance that we will generate adequate funds to continue development, or will ever achieve significant revenues or profitable operations. Many factors (e.g. competition, patent protection, appropriate regulatory approvals) can influence the revenue and product profitability potential.

In developing a pharmaceutical product, we rely upon our employees, contractors, consultants and collaborators and other third-party relationships, including the ability to obtain appropriate product liability insurance. There can be no assurance that this reliance and these relationships will continue as required.

In addition to developmental and operational considerations, market prices for securities of biotechnology companies generally are volatile, and may or may not move in a manner consistent with the progress we have made or are making.

All of our potential products, including pelareorep, are in the research and development stage and will require further development and testing before they can be marketed commercially.

Prospects for companies in the biotechnology industry generally may be regarded as uncertain given the nature of the industry and, accordingly, investments in biotechnology companies should be regarded as speculative. We are currently in the research and development stage on one product, pelareorep, for human application, the riskiest stage for a company in the biotechnology industry. It is not possible to predict, based upon studies in animals and early-stage human clinical trials, whether pelareorep will prove to be safe and effective in humans. Pelareorep will require additional research and development, including extensive additional clinical testing, before we will be able to obtain the approvals of the relevant regulatory authorities in applicable countries to market pelareorep commercially. There can be no assurance that the research and development programs we conduct will result in pelareorep or any other products becoming commercially viable products, and in the event that any product or products result from the research and development program, it is unlikely they will be commercially available for a number of years.

To achieve profitable operations we, alone or with others, must successfully develop, introduce and market our products. To obtain regulatory approvals for products being developed for human use, and to achieve commercial success, human clinical trials must demonstrate that the product is safe for human use and that the product shows efficacy. Unsatisfactory results obtained from a particular study relating to a program may cause us to abandon our commitment to that program or the product being tested. No assurances can be provided that any current or future animal or human test, if undertaken, will yield favorable results. If we are unable to establish that pelareorep is a safe, effective treatment for cancer, we may be required to abandon further development of the product and develop a new business strategy.

There are inherent risks in pharmaceutical research and development.

Pharmaceutical research and development is highly speculative and involves a high and significant degree of risk. The marketability of any product we develop will be affected by numerous factors beyond our control, including but not limited to:

- the discovery of unexpected toxicities or lack of sufficient efficacy of products which make them unattractive or unsuitable for human use;
- preliminary results as seen in animal and/or limited human testing may not be substantiated in larger, controlled clinical trials;
- manufacturing costs or other production factors may make manufacturing of products ineffective, impractical, and non-competitive;
- proprietary rights of third parties or competing products or technologies may preclude commercialization;
- requisite regulatory approvals for the commercial distribution of products may not be obtained; and
- other factors may become apparent during the course of research, up-scaling or manufacturing which may result in the discontinuation of research and other critical projects.

Our products under development have never been manufactured on a commercial scale, and there can be no assurance that such products can be manufactured at a cost or in a quantity to render such products commercially viable. Production and utilization of our products may require the development of new manufacturing technologies and expertise. The impact on our business in the event that new manufacturing technologies and expertise are required to be developed is uncertain. There can be no assurance that we will successfully meet any of these technological challenges or others that may arise in the course of development.

Our business, including our research and development operations, has been and may continue to be adversely affected by the COVID-19 pandemic.

During 2021, the ongoing coronavirus infectious disease 2019 (COVID-19) pandemic has touched elements of our business operations. COVID-19, including its variants, have created challenges affecting our clinical trial activities, including patient enrollment and site activation, along with our manufacturing supply chain. Some of the challenges have included, among other things, patients choosing to delay treatments, clinical sites suspending study activity temporarily, vendor and collaborator staff shortages, and raw material and components delays. While these challenges have largely impacted the timing of certain activities, we believe the impact on our overall business, to date, has not been significant. As well, we believe our financial condition, liquidity, and longer-term strategic development remain on track. However, COVID-19 continues to have a broad adverse impact on the global economy across many industries and has resulted in significant governmental measures being implemented to control the spread of the virus, including quarantines, travel restrictions and business shutdowns, as well as significant volatility in global financial markets.

The extent to which COVID-19 might prolong and/or cause significant disruptions to our business and materially impact our results of operations and our ongoing and planned clinical studies will depend on future developments. These future developments are highly uncertain and cannot be predicted, such as the duration and severity of outbreaks, including future potential waves or cycles, travel restrictions and social distancing, business closures or business disruptions, and the effectiveness of actions taken to contain and treat the disease and to address its impact, including on financial markets. A lack of coordinated responses on risk mitigation and vaccination deployment with respect to the COVID-19 pandemic could result in significant increases to the duration and severity of the pandemic and could have a corresponding negative impact on our business.

If the COVID-19 pandemic worsens or continues for a prolonged period of time, particularly in regions where we or our collaborators and suppliers do business, we could experience disruptions that could significantly impact our current and planned clinical trials, preclinical research and other business activities, including:

- disruption to and delays in preclinical research activities due to an extended closure or reduced capacity of lab facilities;
- further delays or difficulties in enrolling patients in our ongoing and planned clinical trials;
- patients discontinuing their treatment or follow-up visits;
- further delays or difficulties in clinical site initiation, including difficulties in recruiting clinical site investigators and clinical site staff;
- disruptions in supply, logistics, or other activities related to the procurement of materials, which could have a negative impact on our ability to conduct preclinical research, initiate, or complete our clinical trials;

- diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites and hospital staff supporting the conduct of clinical trials;
- interruption of key clinical trial activities, such as clinical trial site monitoring, due to limitations on travel imposed or recommended by federal or state governments, employers, and others;
- interruption of key business activities due to illness and/or quarantine of key individuals and delays associated with recruiting, hiring, and training new temporary or permanent replacements for such key individuals, both internally and at our third-party service providers and strategic partners;
- limitations in resources that would otherwise be focused on the conduct of our business or our current or planned clinical trials or preclinical research, including because of sickness, the desire to avoid contact with large groups of people, restrictions on travel, or prolonged stay-at-home or similar working arrangements;
- delays in receiving approvals from regulatory authorities to initiate our planned clinical trials;
- changes in regulations as part of a response to the COVID-19 pandemic which may require us to change the ways in which our clinical trials are conducted and incur unexpected costs, or require us to discontinue clinical trials altogether;
- delays in necessary interactions with regulators (including the FDA), ethics committees and other important agencies and contractors due to limitations in employee resources or furlough of government or contractor personnel;
- disruptions to our strategic partners' operations, which could delay the development of our product candidates in certain geographical regions and thereby affect the timing of development and commercial milestone payments and royalties on potential future product sales we may receive; and
- limitations on our ability to recruit preclinical research, clinical, regulatory, and other professional staff on the timeframe required to support our research and development programs.

In addition, COVID-19 could result in the continued significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity. Such financial market volatility may continue and the value of our common shares may be adversely impacted.

The COVID-19 pandemic continues to rapidly evolve, and we will continue to monitor the effects of COVID-19 on our business. While the extent of the impact of the COVID-19 pandemic on our business and financial results is uncertain, a continued and prolonged public health crisis such as the COVID-19 pandemic could have a material negative impact on our business, financial condition, and operating results.

Pharmaceutical products are subject to intense regulatory approval processes.

The regulatory process for pharmaceuticals, which includes preclinical studies and multiple phases of clinical trials of each compound to establish its safety and efficacy, takes many years and requires the expenditure of substantial resources. Moreover, if regulatory approval of a drug is granted, such approval may entail limitations on the indicated uses for which it may be marketed. Failure to comply with applicable regulatory requirements can, among other things, result in suspension of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution. Further, government policy may change, and additional government regulations may be established that could prevent or delay regulatory approvals for our products. In addition, a marketed drug and its manufacturer are subject to continual review. Later discovery of previously unknown problems with the product or manufacturer may result in restrictions on such product or manufacturer, including withdrawal of the product from the market.

The FDA and similar regulatory authorities in other countries may deny approval of a new drug application if required regulatory criteria are not satisfied, or may require additional testing. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur after the product reaches the market. The FDA and similar regulatory authorities in other countries may require further testing and surveillance programs to monitor the pharmaceutical product that has been commercialized. Non-compliance with applicable requirements can result in fines and other judicially imposed sanctions, including product withdrawals, product seizures, injunction actions, and criminal prosecutions.

In addition to our own pharmaceuticals, we may supply active pharmaceutical ingredients and advanced pharmaceutical intermediates for use in our customers' drug products. The final drug products in which the pharmaceutical ingredients and advanced pharmaceutical intermediates are used, however, are subject to regulation for safety and efficacy by the FDA and possibly other regulatory authorities in other jurisdictions. Such products must be approved by such agencies before they can be commercially marketed. The process of obtaining regulatory clearance for marketing is uncertain, costly and time consuming. We cannot predict how long the necessary regulatory approvals will take or whether our customers will ever obtain such approval for their products. To the extent that our customers do not obtain the necessary regulatory approvals for marketing new products, our product sales could be adversely affected.

The FDA and other governmental regulators have increased requirements for drug purity and have increased environmental burdens upon the pharmaceutical industry. Because pharmaceutical drug manufacturing is a highly regulated industry, requiring significant documentation and validation of manufacturing processes and quality control assurance prior to the approval of the facility to manufacture a specific drug, our manufacturing facilities may never become approved of, or there can be considerable transition time between the initiation of a contract to manufacture a product and the actual initiation of manufacture of that product. Any lag time in the initiation of a contract to manufacture product and the actual initiation of manufacture could cause us to lose profits or incur liabilities.

The pharmaceutical regulatory regime in Europe and other countries is generally similar to that of the United States. We could face similar risks in these other jurisdictions as the risks described above.

Our operations and products may be subject to other government manufacturing and testing regulations.

Securing regulatory approval for the marketing of therapeutics by the FDA in the United States and similar regulatory agencies in other countries is a long and expensive process, which can delay or prevent product development and marketing. Approval to market products may be for limited applications or may not be received at all.

The products we anticipate manufacturing will have to comply with the FDA's cGMP and other FDA and local government guidelines and regulations, including other international regulatory requirements and guidelines. Additionally, certain of our customers may require the manufacturing facilities contracted by us to adhere to additional manufacturing standards, even if not required by the FDA. Compliance with cGMP regulations requires manufacturers to expend time, money and effort in production, and to maintain precise records and quality control to ensure that the product meets applicable specifications and other requirements. The FDA and other regulatory bodies periodically inspect drug-manufacturing facilities to ensure compliance with applicable cGMP requirements. If the manufacturing facilities contracted by us fail to comply with the cGMP requirements, the facilities may become subject to possible FDA or other regulatory action and manufacturing at the facility could consequently be suspended. We may not be able to contract suitable alternative or back-up manufacturing facilities on terms acceptable to us or at all.

The FDA or other regulatory agencies may also require the submission of any lot of a particular product for inspection. If the lot product fails to meet the FDA requirements, then the FDA could take any of the following actions: (i) restrict the release of the product; (ii) suspend manufacturing of the specific lot of the product; (iii) order a recall of the lot of the product; or (iv) order a seizure of the lot of the product.

We are subject to regulation by governments in many jurisdictions. If we do not comply with healthcare, drug, manufacturing, and environmental regulations, among others, in such jurisdiction, our existing and future operations may be curtailed, and we could be subject to liability.

In addition to the regulatory approval process, we may be subject to regulations under local, provincial, state, federal, and foreign law, including, but not limited to, requirements regarding occupational health, safety, laboratory practices, healthcare fraud and abuse, environmental protection, and hazardous substance control, and may be subject to other present and future local, provincial, state, federal, and foreign regulations.

Our products may fail or cause harm, subjecting us to product liability claims.

Use of our product during current clinical trials may entail risk of product liability. We maintain clinical trial liability insurance; however, it is possible this coverage may not provide full protection against all risks. Given the scope and complexity of the clinical development process, the uncertainty of product liability litigation, and the shrinking capacity of insurance underwriters, it is not possible at this time to assess the adequacy of current clinical trial coverage, nor the ability to secure continuing coverage at the same level and at reasonable cost in the foreseeable future. While we carry, and intend to continue carrying amounts believed to be appropriate under the circumstances, it is not possible at this time to determine the adequacy of such coverage.

In addition, the sale and commercial use of our product entails risk of product liability. We currently do not carry any product liability insurance for this purpose. There can be no assurance that we will be able to obtain appropriate levels of product liability insurance prior to any sale of our pharmaceutical products. An inability to obtain insurance on economically feasible terms or to otherwise protect against potential product liability claims could inhibit or prevent the commercialization of products developed by us. The obligation to pay any product liability claim or a recall of a product could have a material adverse effect on our business, financial condition, and future prospects.

Our technologies may become obsolete.

The pharmaceutical industry is characterized by rapidly changing markets, technology, emerging industry standards, and frequent introduction of new products. The introduction of new products embodying new technologies, including new manufacturing processes and the emergence of new industry standards may render our products obsolete, less competitive, or less marketable. The process of developing our products is extremely complex and requires significant continuing development efforts, and third-party commitments. Our failure to develop new technologies and products and the obsolescence of existing technologies could adversely affect our business.

We may be unable to anticipate changes in our potential customer requirements that could make our existing technology obsolete. Our success will depend, in part, on our ability to continue to enhance our existing technologies, develop new technology that addresses the increasing sophistication and varied needs of the market, and respond to technological advances and emerging industry standards and practices on a timely and cost-effective basis. The development of our proprietary technology entails significant technical and business risks. We may not be successful in using our new technologies or exploiting our niche markets effectively, or adapting our businesses to evolving customer or medical requirements or preferences or emerging industry standards.

Our license, development, supply and distribution agreement with Adlai Nortye Biopharma Co. is subject to certain risks and uncertainties related to our dependence on Adlai and doing business in foreign jurisdictions.

On November 16, 2017, we announced that we had entered into a license, development, supply, and distribution agreement (the "Licensing Agreement") with Adlai Nortye Biopharma Co., Ltd. ("Adlai"). Under the terms of the Licensing Agreement, Adlai will have exclusive development and commercialization rights to pelareorep in China, Hong Kong, Macau, Singapore, South Korea, and Taiwan (the "Territories"). Pursuant to the Licensing Agreement, along with payments to be received by us upon meeting certain requirements and milestones, we are also eligible to receive royalty payments in excess of 10% associated with the commercialization of pelareorep for all indications, subject to regulatory approval. Under the terms of the Licensing Agreement, Adlai will be responsible for all clinical, regulatory and commercialization activities respecting pelareorep in the Territories and therefore the Company will be dependent upon Adlai in successfully undertaking those actions in a timely and economic manner and in compliance with all applicable legal and regulatory requirements within the Territories. If Adlai is unable to fulfill its obligations under the terms of the Licensing Agreement and in compliance with all applicable legal and regulatory requirements, including clinical, regulatory and commercialization of pelareorep, our prospective revenue from royalty payments related to the commercialization of pelareorep in the Territories may be materially diminished, delayed or never realized, which could negatively affect our operating results and financial condition.

Further, conducting business with Adlai within the Territories, and specifically China, subjects us to certain economic, political, currency and legal risks, and uncertainties regarding, among other things, the development and commercialization of pelareorep and the release and receipt of payments under the terms of the Licensing Agreement, including the payment of royalties upon commercialization of pelareorep. These risks include:

- different regulatory requirements for drug approvals in foreign countries;
- different standards of care in various countries that could complicate the evaluation of our product candidates;
- different U.S. and foreign drug import and export rules;
- reduced protection for intellectual property rights in certain countries;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- different reimbursement systems and different competitive drugs indicated to treat the indications for which our product candidates are being developed;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with the FCPA, and other anti-corruption and anti-bribery laws;
- U.S. and foreign taxes;
- foreign currency fluctuations, which could result in reduced revenues, and other obligations incident to doing business in another country;
- a reliance on CROs, clinical trial sites, principal investigators and other third parties that may be less experienced with clinical trials or have different methods of performing such clinical trials than we are used to in the U.S.;
- potential liability resulting from development work conducted by foreign distributors; and
- business interruptions resulting from geopolitical actions, including war and terrorism, or natural disasters.

The governments of the Territories, and specifically the Chinese government, exercise significant control over all aspects of their respective economies. Accordingly, any adverse change in the economy, the legal system or governmental, economic or other policies could have a material adverse effect on the business prospects of the Licensing Agreement with Adlai, including

our ability to receive money out of China under the terms of the Licensing Agreement. Any disruption in relations, inability to work efficiently or disadvantageous treatment of Adlai by the governments of the Territories or other authorities could have a material adverse effect on our business prospects under the Licensing Agreement. Additionally, the regulatory environment in the Territories is evolving, and officials in the governments in the Territories exercise broad discretion in deciding how to interpret and apply regulations. There can be no assurance that Adlai will be successful in the development and commercialization of pelareorep in the Territories.

We have no operating revenues and a history of losses. We have no products approved for commercial sale, and we may never achieve or sustain profitability.

We are a development-stage biopharmaceutical company. We have incurred significant losses since our inception. To date, we have not generated sufficient revenues to offset our research and development costs and accordingly have not generated positive cash flow or made an operating profit. As of December 31, 2021, we had an accumulated deficit of $393.4 million and we incurred net losses of $26.3 million, $22.5 million and $33.1 million for the years ended December 31, 2021, 2020, and 2019, respectively. We anticipate that we will continue to incur significant losses during 2022 and in the foreseeable future. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Because of the numerous risks and uncertainties associated with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. We do not expect to reach profitability at least until after the successful and profitable commercialization of one or more of our products. Even if one or more of our products are profitably commercialized, the initial losses incurred by us may never be recovered.

We may need additional financing in the future to fund the research and development of our products and to meet our ongoing capital requirements.

We anticipate that we will need additional financing in the future to fund research and development and to meet our ongoing capital requirements. The amount of future capital requirements will depend on many factors, including continued scientific progress in our drug discovery and development programs, progress in our pre-clinical and clinical evaluation of drug candidates, time and expense associated with filing, prosecuting and enforcing our patent claims and costs associated with obtaining regulatory approvals. In order to meet such capital requirements, we will consider contract fees, collaborative research and development arrangements, and additional public or private financings (including the incurrence of debt and the issuance of additional equity securities) to fund all or a part of particular programs as well as potential partnering or licensing opportunities.

Oncolytics, from time to time, along with all other pharmaceutical research and development entities, may have restricted access to capital, bank debt and equity, and, from time to time, may face increased borrowing costs. Although our business and asset base have not changed, the lending capacity of all financial institutions fluctuates causing a corresponding change in risk premiums. As future operations will be financed out of funds generated from financing activities, our ability to do so is dependent on, among other factors, the overall state of capital markets and investor appetite for investments in the pharmaceutical industry and our securities in particular.

Should we elect to satisfy our cash commitments through the issuance of securities, by way of either private placement or public offering or otherwise, there can be no assurance that our efforts to raise such funding will be successful, or achieved on terms favorable to us or our existing shareholders. If adequate funds are not available on terms favorable to us, we may have to reduce substantially or eliminate expenditures for research and development, testing, production and marketing of our proposed product, or obtain funds through arrangements with corporate partners that require us to relinquish rights to certain of our technologies or product. There can be no assurance that we will be able to raise additional capital if our current capital resources are exhausted.

The cost of director and officer liability insurance may continue to increase substantially or may not be available to us and may affect our ability to retain quality directors and officers.

We carry liability insurance on behalf of our directors and officers. Given a number of large director and officer liability insurance claims in the U.S. equity markets, director and officer liability insurance has become increasingly more expensive with increased restrictions. Consequently, there is no assurance that we will continue to be offered this insurance or be able to obtain adequate coverage. The inability to acquire the appropriate insurance coverage may limit our ability to attract and maintain directors and officers as required to conduct our business.

We incur some of our expenses in foreign currencies and therefore are exposed to foreign currency exchange rate fluctuations.

We incur some of our manufacturing, clinical, collaborative and consulting expenses in foreign currencies, primarily the U.S. dollar. We are therefore exposed to foreign currency rate fluctuations. Also, as we expand to other foreign jurisdictions there may be an increase in our foreign exchange exposure.

Consolidated Financial Statements

Oncolytics Biotech® Inc.
December 31, 2021 and 2020

STATEMENT OF MANAGEMENT'S RESPONSIBILITY

Management is responsible for the preparation and presentation of the consolidated financial statements, Management's Discussion and Analysis ("MD&A") and all other information in the annual report.

In management's opinion, the accompanying consolidated financial statements have been properly prepared within reasonable limits of materiality and in accordance with the appropriately selected International Financial Reporting Standards as issued by the International Accounting Standards Board consistently applied and summarized in the consolidated financial statements.

The consolidated financial statements include estimates that are necessary when transactions affecting the current accounting period cannot be finalized with certainty until after the balance sheet date. Based on careful judgments by management, such estimates have been properly reflected in the accompanying consolidated financial statements. The financial information presented elsewhere in the annual report has been reviewed to ensure consistency with that in the consolidated financial statements. The MD&A also includes information regarding the impact of current transactions and events, sources of liquidity and capital resources and risks and uncertainty. Actual results in the future may differ materially from our present assessment of this information because future events and circumstances may not occur as expected.

Systems of internal controls, including organizational and procedural controls and internal controls over financial reporting, assessed as reasonable and appropriate in the circumstances, are designed and maintained by management to provide reasonable assurance that assets are safeguarded from loss or unauthorized use and to produce reliable records for preparation of financial statements.

Ernst & Young LLP, an independent firm of Charter Professional Accountants, has been engaged, as approved by a vote of the shareholders' at the Company's most recent Annual General Meeting, to audit and provide their independent audit opinions on the following:

- the Company's consolidated financial statements as at and for the year ended December 31, 2021; and
- the effectiveness of the Company's internal control over financial reporting as at December 31, 2021.

Ernst & Young have full and free access to our Board of Directors and its Committees to discuss audit, financial reporting and related matters.

The Board of Directors is responsible for ensuring that management fulfills its responsibilities for financial reporting and internal control. The Board exercises this responsibility through the Audit Committee of the Board, which is comprised entirely of independent directors. This Committee meets with management and the external auditors to satisfy itself that management's responsibilities are properly discharged and to review the consolidated financial statements and MD&A before they are presented to the Board of Directors for approval. The consolidated financial statements have been approved by the Board on the recommendation of the Audit Committee.

/s/ Matthew Coffey

Dr. Matthew Coffey, PhD, MBA
President and Chief Executive Officer

/s/ Kirk Look

Kirk Look, CA
Chief Financial Officer

The following report is provided by management in respect of the company's internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the U.S. Securities Exchange Act of 1934):

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

1. Management is responsible for establishing and maintaining adequate internal control over the company's financial reporting.

2. Management has used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework (2013) in Internal Control - Integrated Framework to evaluate the effectiveness of the company's internal control over financial reporting.

3. Management has assessed the effectiveness of the company's internal control over financial reporting as at December 31, 2021, and has concluded that such internal control over financial reporting was effective as of that date. Additionally, based on this assessment, management determined that there were no material weaknesses in internal control over financial reporting as at December 31, 2021. Because of inherent limitations, systems of internal control over financial reporting may not prevent or detect misstatements and even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

4. The effectiveness of the company's internal control over financial reporting as at December 31, 2021 has been audited by Ernst & Young, independent auditor, as stated in their report which appears herein.

/s/ Matthew Coffey

Dr. Matthew Coffey, PhD, MBA
President and Chief Executive Officer

/s/ Kirk Look

Kirk Look, CA
Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Oncolytics Biotech Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated statements of financial position of Oncolytics Biotech Inc. (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of loss and comprehensive loss, changes in equity (deficit) and cash flows for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 2021 and 2020, and its financial performance and cash flows for each of the three years in the period ended December 31, 2021, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), and our report dated March 2, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

Chartered Professional Accountants

We have served as the Company's auditor since 1999.

Calgary, Canada
March 2, 2022

Report of Internal Control over Financial Reporting

To the Shareholders and Board of Directors of Oncolytics Biotech Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Oncolytics Biotech Inc.'s internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), (the COSO criteria). In our opinion, Oncolytics Biotech Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021 based on the COSO criteria**.**

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of Oncolytics Biotech Inc. as of December 31, 2021 and 2020, the related consolidated statements of loss and comprehensive loss, changes in equity (deficit) and cash flows for each of the three years in the period ended December 31, 2021, and the related notes, and our report dated March 2, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the consolidated financial statements.

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

Chartered Professional Accountants

Calgary, Canada
March 2, 2022

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(in Canadian dollars, except share amounts)

As at December 31,	2021	2020
Assets		
Current assets		
Cash and cash equivalents (note 5)	**$ 41,262,044**	$ 31,219,574
Other receivables (note 13)	**866,055**	89,661
Prepaid expenses	**2,775,800**	2,427,200
Total current assets	**44,903,899**	33,736,435
Property and equipment (note 6)	**392,041**	236,664
Right-of-use assets (note 7)	**584,251**	372,468
Total assets	**$ 45,880,191**	$ 34,345,567
Liabilities And Shareholders' Equity		
Current Liabilities		
Accounts payable and accrued liabilities	**$ 1,987,870**	$ 1,805,015
Other liabilities (note 13)	**352,279**	123,985
Lease liabilities (note 7)	**293,672**	248,885
Warrant derivative (note 8)	**56,017**	531,228
Total current liabilities	**2,689,838**	2,709,113
Contract liability (note 12)	**6,730,287**	6,730,287
Lease liabilities (note 7)	**361,081**	153,174
Total liabilities	**9,781,206**	9,592,574
Commitments and contingencies (note 13, 14, 19)		
Shareholders' equity		
Share capital (note 9) Authorized: unlimited Issued: December 31, 2021 – 55,043,789 December 31, 2020 – 46,166,980	**391,348,183**	356,824,172
Warrants (note 9)	**3,617,570**	3,617,570
Contributed surplus (note 10)	**34,161,103**	31,022,356
Accumulated other comprehensive income	**387,738**	400,225
Accumulated deficit	**(393,415,609)**	(367,111,330)
Total shareholders' equity	**36,098,985**	24,752,993
Total liabilities and shareholders' equity	**$ 45,880,191**	$ 34,345,567

See accompanying notes

On behalf of the Board:

/s/ Angela Holtham Director

/s/ Wayne Pisano Director

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF LOSS AND COMPREHENSIVE LOSS
(in Canadian dollars, except share amounts)

For the years ended December 31,	2021	2020	2019
Expenses			
Research and development (note 10, 21, 22)	**$ 12,920,371**	$ 12,944,510	$ 10,817,997
Operating (note 10, 21, 22)	**13,314,574**	12,514,496	9,558,641
Loss before the following	**(26,234,945)**	(25,459,006)	(20,376,638)
Change in fair value of warrant derivative (note 8)	**17,117**	3,491,928	(12,608,808)
Foreign exchange loss (note 21)	**(135,636)**	(659,173)	(316,719)
Interest income, net	**98,612**	121,194	179,277
Loss before income taxes	**(26,254,852)**	(22,505,057)	(33,122,888)
Income tax expense (note 15)	**(49,427)**	—	—
Net loss	**(26,304,279)**	(22,505,057)	(33,122,888)
Other comprehensive loss items that may be reclassified to net loss			
Translation adjustment	**(12,487)**	(63,876)	(143,403)
Net comprehensive loss	**$ (26,316,766)**	$ (22,568,933)	$ (33,266,291)
Basic and diluted loss per common share (note 11)	**$ (0.49)**	$ (0.56)	$ (1.50)
Weighted average number of shares (basic and diluted) (note 11)	**53,513,225**	40,338,789	22,137,990

See accompanying notes

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY (DEFICIT)
(in Canadian dollars)

	Share Capital	Warrants	Contributed Surplus	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
As at December 31, 2018	$ 285,193,061	$ 3,617,570	$ 28,260,613	$ 607,504	$ (311,483,385)	$ 6,195,363
Net loss and other comprehensive income	—	—	—	(143,403)	(33,122,888)	(33,266,291)
Issued pursuant to incentive share award plan (note 10)	391,917	—	(391,917)	—	—	—
Issued pursuant to Common Stock Purchase Agreement (note 9)	5,403,385	—	—	—	—	5,403,385
Issued pursuant to "At the Market" Agreement (note 9)	8,476,454	—	—	—	—	8,476,454
Issued pursuant to public offering (note 9)	3,314,429	—	—	—	—	3,314,429
Issued pursuant to warrant derivative exercised (note 8, 9)	9,152,869	—	—	—	—	9,152,869
Share-based compensation (note 10)	—	—	1,470,153	—	—	1,470,153
Share issue costs (note 9)	(854,256)	—	—	—	—	(854,256)
As at December 31, 2019	$ 311,077,859	$ 3,617,570	$ 29,338,849	$ 464,101	$ (344,606,273)	$ (107,894)
Net loss and other comprehensive income	—	—	—	(63,876)	(22,505,057)	(22,568,933)
Issued pursuant to stock option plan (note 10)	385,022	—	(143,100)	—	—	241,922
Issued pursuant to incentive share award plan (note 10)	732,367	—	(732,367)	—	—	—
Issued pursuant to "At the Market" Agreement (note 9)	40,037,786	—	—	—	—	40,037,786
Issued pursuant to warrant derivative exercised (note 8, 9)	6,332,778	—	—	—	—	6,332,778
Share-based compensation (note 10)	—	—	2,558,974	—	—	2,558,974
Share issue costs (note 9)	(1,741,640)	—	—	—	—	(1,741,640)
As at December 31, 2020	$ 356,824,172	$ 3,617,570	$ 31,022,356	$ 400,225	$ (367,111,330)	$ 24,752,993
Net loss and other comprehensive income	—	—	—	(12,487)	(26,304,279)	(26,316,766)
Issued pursuant to stock option plan (note 10)	381,771	—	(143,321)	—	—	238,450
Issued pursuant to incentive share award plan (note 10)	543,833	—	(543,833)	—	—	—
Issued pursuant to "At the Market" Agreement (note 9)	34,168,071	—	—	—	—	34,168,071
Issued pursuant to warrant derivative exercised (note 8, 9)	686,616	—	—	—	—	686,616
Share-based compensation (note 10)	—	—	3,825,901	—	—	3,825,901
Share issue costs (note 9)	(1,256,280)	—	—	—	—	(1,256,280)
As at December 31, 2021	**$ 391,348,183**	**$ 3,617,570**	**$ 34,161,103**	**$ 387,738**	**$ (393,415,609)**	**$ 36,098,985**

See accompanying notes

ONCOLYTICS BIOTECH INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in Canadian dollars)

For the years ended December 31,	2021	2020	2019
Operating Activities			
Net loss for the year	**$ (26,304,279)**	$ (22,505,057)	$ (33,122,888)
Depreciation - property and equipment (note 6, 21)	**130,243**	88,957	122,982
Depreciation - right-of-use assets (note 7, 21)	**321,822**	357,230	362,592
Share-based compensation (note 10, 21, 22)	**3,825,901**	2,558,974	1,470,153
Interest expense on lease liabilities (note 7)	**91,727**	68,526	94,817
Unrealized foreign exchange loss	**425,681**	645,078	353,189
Change in fair value of warrant derivative (note 8)	**(17,117)**	(3,491,928)	12,608,808
Net change in non-cash working capital (note 18)	**(907,987)**	209,779	(1,795,777)
Cash used in operating activities	**(22,434,009)**	(22,068,441)	(19,906,124)
Investing Activities			
Acquisition of property and equipment (note 6)	**(285,948)**	(29,305)	(10,905)
Cash used in investing activities	**(285,948)**	(29,305)	(10,905)
Financing Activities			
Proceeds from exercise of stock options (note 10)	**238,450**	241,922	—
Proceeds from exercise of warrants (note 8, 9)	**230,946**	1,696,460	3,465,867
Proceeds from Common Stock Purchase Agreement (note 9)	**—**	—	5,360,247
Proceeds from "At the Market" equity distribution agreement (note 9)	**32,911,791**	38,296,146	8,131,620
Proceeds from public offering (note 9)	**—**	—	4,505,359
Payment of lease liabilities (note 7)	**(365,510)**	(460,724)	(447,497)
Cash provided by financing activities	**33,015,677**	39,773,804	21,015,596
Increase in cash	**10,295,720**	17,676,058	1,098,567
Cash and cash equivalents, beginning of year	**31,219,574**	14,148,021	13,699,881
Impact of foreign exchange on cash and cash equivalents	**(253,250)**	(604,505)	(650,427)
Cash and cash equivalents, end of year	**$ 41,262,044**	$ 31,219,574	$ 14,148,021

See accompanying notes

Note 1: Incorporation and Nature of Operations

Oncolytics Biotech Inc. was incorporated on April 2, 1998 under the Business Corporations Act (Alberta) as 779738 Alberta Ltd. On April 8, 1998, we changed our name to Oncolytics Biotech Inc.

Our consolidated financial statements for the year ended December 31, 2021, were authorized for issue in accordance with a resolution of the Board of Directors (the "Board") on March 2, 2022. We are a limited company incorporated and domiciled in Canada. Our shares are publicly traded on the Nasdaq Capital Markets and the Toronto Stock Exchange. Our principal place of business is located at 804, 322 11th Avenue SW, Calgary, Alberta, Canada.

We are a development-stage biopharmaceutical company that focuses on the discovery and development of immunotherapeutic products for the treatment of cancers that have not been successfully treated with conventional therapeutics. Our lead product, pelareorep, is an intravenously delivered immunotherapeutic agent that may be a novel treatment for certain types of cancer and may be an alternative to or used in combination with existing cytotoxic or cytostatic therapies. Our clinical development program for pelareorep centers on key immunotherapy combinations. Specifically, immunotherapy combinations in which pelareorep has the potential to provoke specific innate and adaptive immune responses when combined with checkpoint blockade therapy, chemotherapy and/or targeted therapies.

Note 2: Basis of Financial Statement Presentation

Our consolidated financial statements include our financial statements and the financial statements of our subsidiaries Oncolytics Biotech (Barbados) Inc. and Oncolytics Biotech (U.S.) Inc. and are presented in Canadian dollars, our functional currency.

The accounts are prepared on the historical cost basis, except for certain assets and liabilities which are measured at fair value as explained in the notes to these financial statements.

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

Basis of consolidation
Our accounts include the accounts of Oncolytics Biotech Inc. and our subsidiaries. Subsidiaries are entities over which we have control which is achieved when we are exposed, or have the rights, to variable returns from our involvement with the investee and has the ability to affect those returns through our power to govern. Accounting policies of subsidiaries are consistent with our accounting policies and all intra-group transactions, balances, income and expenses are eliminated on consolidation.

Note 3: Summary of Significant Accounting Policies

The consolidated financial statements have, in management's opinion, been properly prepared within reasonable limits of materiality and within the framework of the significant accounting policies summarized below.

Deferred income taxes

We follow the liability method of accounting for income taxes. Under the liability method, deferred income taxes are recognized for the difference between financial statement carrying values and the respective income tax basis of assets and liabilities (temporary differences). Deferred income tax assets and liabilities are measured using substantively enacted income tax rates and laws expected to apply in the years in which temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities of a change in tax rates is charged or credited to income, except when it is related to items charged or credited to either other comprehensive income or directly to equity.

Financial instruments

Classification and measurement
Financial assets
Financial assets are initially measured at fair value. In the case of a financial asset not at fair value through profit or loss, the financial asset is initially measured at fair value plus or minus transaction costs.

Under IFRS 9 *Financial Instruments* (*"IFRS 9"*), financial assets are subsequently measured at amortised cost, fair value through profit or loss (FVPL), or fair value through other comprehensive income (FVOCI). The classification is based on two criteria: the Company's business model for managing the assets; and whether the financial asset's contractual cash flows represent 'solely payments of principal and interest' on the principal amount outstanding (the 'SPPI criterion').

Our financial assets include cash and cash equivalents and other receivables. The classification and measurement of these financial assets are at amortized cost, as these assets are held within our business model with the objective to hold the financial assets in order to collect contractual cash flows that meet the SPPI criterion.

Financial liabilities
Financial liabilities are initially measured at fair value and are subsequently measured at amortised cost or FVPL. Our financial liabilities include accounts payable and accrued liabilities and warrant derivative. The classification and measurement of accounts payable and accrued liabilities are at amortized cost. The classification and measurement of warrant derivative is at FVPL.

Impairment
Under IFRS 9, accounting for impairment losses for financial assets uses a forward-looking expected credit loss (ECL) approach.

IFRS 9 requires that we record a loss allowance for ECLs on all financial assets not held at FVPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

Derecognition
A financial asset is derecognized when:
- the contractual rights to the cash flows from the financial asset expire, or
- we transfer the financial asset and substantially all the risks and rewards of ownership of the financial asset to another entity.

A financial liability is derecognized when our obligations specified in the contract are discharged or canceled or expired.

Fair Value Measurement
Fair value is the price that would be received to sell an asset, or paid to transfer a liability in an orderly transaction between market participants, at the measurement date. In determining the fair value measurement of our financial instruments we prioritize the related inputs used in measuring fair value into the following hierarchy:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable;

Level 3 - Unobservable inputs in which little or no market activity exists, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

Foreign currency translation

The financial statements for each of our subsidiaries are prepared using their functional currency. Our functional and presentation currency is the Canadian dollar. Foreign currency transactions are translated into the functional currency using exchange rates prevailing at the dates of the transactions. Exchange differences resulting from the settlement of such transactions and from the translation at exchange rates ruling at the statement of financial position date of monetary assets and liabilities denominated in currencies other than the functional currency are recognized directly in the consolidated statement of loss and comprehensive loss.

Exceptions to this are where the monetary items form part of the net investment in a foreign operation and the foreign operation's functional currency is the local currency. These exchange differences are initially recognized in equity. The statement of financial position of foreign operations is translated into Canadian dollars using the exchange rate at the statement of financial position date and the income statements are translated into Canadian dollars using the average exchange rate for the period. Where this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, the exchange rate on the transaction date is used. Exchange differences on translation into Canadian dollars are recognized as a separate component of equity. On disposal of a foreign operation, any cumulative exchange differences held in equity are transferred to the consolidated statement of loss and comprehensive loss.

Loss per common share

Basic loss per common share is determined using the weighted average number of common shares outstanding during the period.

We use the treasury stock method to calculate diluted loss per common share. Under this method, diluted loss per common share is computed in a manner consistent with basic loss per common share except that the weighted average common shares outstanding are increased to include additional common shares from the assumed exercise of options and warrants, if dilutive. The number of additional common shares is calculated by assuming that any outstanding “in the money” options, restricted share units, performance share units, and warrants were exercised at the later of the beginning of the period or the date of issue and that the proceeds from such exercises were used to acquire shares of common stock at the average market price during the reporting period.

Property and equipment

Property and equipment are recorded at cost. Depreciation is provided on bases and at rates designed to amortize the cost of the assets over their estimated useful lives. Depreciation is recorded using the declining balance method at the following annual rates:

Office equipment and furniture	20%
Medical equipment	20%
Computer equipment	30%
Leasehold improvements	Straight-line over the term of the lease

Leases

At inception of a contract, we assess whether a contract is, or contains a lease by determining whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, we assess whether:

- the contract involves the use of an identified asset;
- we have the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use; and
- we have the right to direct the use of the identified asset.

A right-of-use asset and corresponding lease liability is recognized on the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term. In addition, the right-of-use asset is reduced by impairment losses and adjusted for certain remeasurements of the lease liabilities, if any.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. The lease payments are discounted using the implicit interest rate in the lease. If the rate cannot be readily determined, our incremental rate of borrowing is used. The lease liability is subsequently measured at amortized cost using the effective interest method. The lease liability is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in our estimate of the amount expected to be payable under a residual value guarantee, if we change our assessment of whether we will exercise a purchase, extension or termination option, or if the underlying lease contract is amended.

We have elected not to separate fixed non-lease components from lease components and instead account for each lease component and associated fixed non-lease components as a single lease component.

We have elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less. We recognize the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

Research and development costs

Research and development costs are expensed as incurred, net of recoveries. We record accruals for the estimated costs of our research and development activities performed by third parties. The financial terms of the agreements with our vendors are subject to negotiation, vary from contract to contract, and may result in uneven payment flows to our vendors. Advance payments for goods or services that will be used or rendered for future research and development activities are capitalized as prepaid expenses and recognized as expense as the related goods are delivered or the related services are performed. We base our estimates on the best information available at the time. However, additional information may become available to us which may allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods.

Development costs that meet specific criteria related to technical, market and financial feasibility will be capitalized. To date, all development costs have been expensed.

Revenue recognition

Revenue relates to a long-term contract associated with a regional licensing agreement (the "Licensing Agreement") with Adlai Nortye Biopharma Co., Ltd. ("Adlai"). The pricing for the contract was based on the specific negotiations with Adlai and includes non-refundable upfront license fees, development and regulatory milestone payments, royalties, and sales-based milestone payments. We account for a contract with a customer when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

Under the Licensing Agreement, we have granted a regional license to our intellectual property. The granting of this license is accounted for as one performance obligation. We have determined that we provide Adlai with a right to access our intellectual property, and therefore recognize revenue related to the upfront license fee over time. Revenue is recognized based on the extent of progress towards completion of the performance obligation using the input method. Under the input method, the extent of progress towards completion is measured based on the ratio of costs incurred to date to the total estimated costs at completion of the performance obligation. We use this method because Adlai receives and consumes the benefit of our intellectual property as we undertake activities that impact the intellectual property. Management must use judgment in making assumptions and estimates regarding total estimated costs, the complexity of the work to be performed, and the length of time to complete the performance obligation, among other variables.

The contract also provides for development and regulatory milestone payments, royalties, and sales-based milestone payments. These amounts are contingent on the occurrence of a future event and therefore give rise to variable consideration. We estimate variable consideration at the most likely amount to which we expect to be entitled. We include estimated amounts in the transaction price when it becomes highly probable that the amount will not be subject to significant reversal when the uncertainty associated with the variable consideration is resolved. Our estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based largely on an assessment of our anticipated performance and all information (historical, current and forecasted) that is reasonably available to us. Based on this information and related analysis, any quarterly adjustments to revenue are recognized as necessary in the period they become known.

The upfront license fee is not considered a significant financing component because it is used to meet working capital demands that can be higher in the early stages of a contract and to protect us from the other party failing to adequately complete some or all of its obligations under the contract.

Revenue from sales-based royalties and the achievement of annual sales volumes will be recognized when the subsequent sale occurs, as the license of the intellectual property is the predominant item to which the royalty relates. We consider payments associated with the achievement of annual sales volumes to be, in substance, royalty payments and we will recognize such sales-based payments upon achievement of such sales volumes, provided that collection is reasonably assured.

Contract liability - Our contract liability includes upfront license fees and billings in excess of revenue recognized. Contract liabilities are recognized as revenue as or when we perform under the contract. We classify our contract liability as current or noncurrent based on the timing of when we expect to recognize revenue.

Share-based compensation

Stock option plan
We have one stock option plan (the “Option Plan”) available to officers, directors, employees, and consultants with grants under the Option Plan approved from time to time by our Board of Directors (the “Board”). Under the Option Plan, the exercise price of each option is set at equal to or higher than the trading price of our stock on the date of grant in accordance with Toronto Stock Exchange guidelines. Vesting is provided for at the discretion of the Board and the expiration of options is to be no greater than 10 years from the date of grant. Exercised stock options are settled with common shares issued from treasury.

We use the fair value based method of accounting for stock option awards granted under the Option Plan. We recognize compensation expense and a corresponding adjustment to contributed surplus equal to the fair value of the stock options granted using the Black-Scholes valuation model and is recognized over the vesting periods of the respective options. Compensation expense is adjusted for subsequent changes in management’s estimate of the number of options that are expected to vest.

Incentive share award plan
Our incentive share award plan (the "Share Plan") is available to directors, officers, and employees. Under our Share Plan, performance share units and restricted share units may be approved from time to time by the Board. Performance share units ("PSUs") are an award to certain officers and employees to which common shares shall be issued based upon achieving the applicable performance criteria. Restricted share units ("RSUs") are an award to certain officers and employees and to non-employee directors to which common shares shall be issued in accordance with the Share Plan.

We recognize compensation expense and a corresponding adjustment to contributed surplus equal to the market value of our common shares at the date of grant based on the number of PSUs/RSUs expected to vest, recognized over the term of the vesting period. Compensation expense is adjusted for subsequent changes in management’s estimate of the number of PSUs/ RSUs that are expected to vest. The effect of these changes is recognized in the period of the change.

Accounting Standards and Interpretations Issued but Not Yet Effective

IAS 1 *Presentation of Financial Statements*
In February 2021, the IASB issued amendments to IAS 1 *Presentation of Financial Statements* and IFRS Practice Statement 2 *Making Materiality Judgements* in which it provides guidance and example to help entities apply materiality judgements to accounting policy disclosures. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with

earlier application permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

IAS 8 ***Accounting Policies, Changes in Accounting Estimates and Errors***
In February 2021, the IASB issued amendments to IAS 8, in which it introduces a new definition of 'accounting estimates'. The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. Also, the amendments clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with earlier application permitted. The adoption of this standard is not expected to have a material impact on our consolidated financial statements.

IAS 12 ***Income Taxes***
In May 2021, the IASB issued amendments to IAS 12, which narrows the scope of the initial recognition exception under IAS 12, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences. The amendments apply to annual reporting periods beginning on or after January 1, 2023, with earlier application permitted. The amendments apply prospectively to transactions that occur on or after the beginning of the earliest comparative period presented. We are assessing the impact of adopting this standard on our consolidated financial statements.

Note 4: Significant Judgments, Estimates and Assumptions

The full extent to which the coronavirus infectious disease 2019 ("COVID-19") pandemic may directly or indirectly impact our business, results of operations and financial condition, including our ability to finance our operations, expenses, clinical trials, and research and development costs, will depend on future developments that are evolving and highly uncertain, such as the duration and severity of outbreaks, including potential future waves or cycles, and the effectiveness of actions taken to contain and treat COVID-19. We considered the potential impact of COVID-19 when making certain estimates and judgments relating to the preparation of these consolidated financial statements. While there was no material impact to our consolidated financial statements as of and for the year ended December 31, 2021, our future assessment of the magnitude and duration of COVID-19, as well as other factors, could result in a material impact to our consolidated financial statements in future reporting periods.

Judgments

The preparation of our consolidated financial statements requires us to make judgments, estimates and assumptions that affect the reported amount of expenses, assets, liabilities, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the asset or liability affected in future periods.

Estimates and assumptions

Because a precise determination of many assets and liabilities is dependent upon future events, the preparation of financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting periods. Actual results could differ from those estimates and such differences could be significant. Significant estimates made by management affecting our consolidated financial statements include:

Revenue recognition
We entered into a Licensing Agreement which provides, among other payments, for upfront license fees in exchange for a regional license to our intellectual property. Management uses its judgment in applying the input method when determining the extent of progress towards completion of the performance obligation. Revenue recognition requires assumptions and estimates regarding total estimated costs, the complexity of the work to be performed, and the length of time to complete the performance obligation, among other variables.

Clinical trial expenses
Clinical trial expenses represent a significant component of our research and development expenses and we outsource a significant portion of these activities to third-party contract research organizations. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows to these organizations. Payments under the contracts depend on factors such as the achievement of certain events, successful enrollment of patients, and completion of certain clinical trial activities. As part of preparing the consolidated financial statements, we estimate the expense to recognize based on services that have been performed by the contract research organizations. When making these estimates, we use operational and contractual information from third-party service providers, operational data from internal personnel, and considerable judgment. We base our estimates on the best information available at the time. However, additional information may become available to us which may allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods when the actual level of activity becomes more certain. Such increases or decreases in cost are generally considered to be changes in estimates and will be reflected in research and development expenses in the period identified.

Valuation of share-based compensation
Estimating fair value for stock options granted 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, share price volatility, and dividend yield, and making assumptions about them. The assumptions and inputs used for estimating fair value for stock options granted are disclosed in Note 10.

Valuation of warrant derivative
Estimating fair value of the warrant derivative at initial measurement, at each exercise date and at each reporting period requires determining the most appropriate valuation model. This estimate also requires determining the most appropriate inputs to the valuation model including the expected life, share price volatility, and dividend yield, and making assumptions about them. The assumptions and inputs used for estimating fair value of the warrant derivative are disclosed in Note 8.

Income taxes
Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Currently, we are accumulating tax loss carry forward balances in various tax jurisdictions creating a deferred tax asset. Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies.

To date we have determined that none of our deferred tax assets should be recognized. Our deferred tax assets are mainly comprised of our net operating losses from prior years, prior year research and development expenses, and non-refundable investment tax credits. These tax pools relate to entities that have a history of losses, have varying expiry dates, and may not be used to offset taxable income within our other subsidiaries. As well, there are no taxable temporary differences or any tax planning opportunities available that could partly support the recognition of these losses as deferred tax assets.

Leases
We make judgments in determining whether a contract contains an identified asset. The identified asset should be physically distinct or represent substantially all of the capacity of the asset, and should provide us with the right to substantially all of the economic benefits from the use of the asset.

We also make judgments in determining whether or not we have the right to control the use of the identified asset. We have that right when we have the decision-making rights that are most relevant to changing how and for what purpose the asset is used. In cases where the decisions about how and for what purpose the asset is used are predetermined, we have the right to direct the use of the asset if we have the right to operate the asset or if we designed the asset in a way that predetermines how and for what purpose the asset will be used.

We make judgments in determining the incremental borrowing rate used to measure our lease liability for each lease contract, including an estimate of the asset-specific security impact. The incremental borrowing rate should reflect the interest that we would have to pay to borrow at a similar term and with a similar security.

(in Canadian dollars, except share amounts)

Note 5: Cash Equivalents

Cash equivalents consist of interest bearing deposits with our bank totaling $39,901,509 (December 31, 2020 – $30,361,591). The current annual interest rate earned on these deposits is 0.45% (December 31, 2020 – 0.36%).

Note 6: Property and Equipment

	Medical Equipment	Computer Equipment	Office Equipment and Furniture	Leasehold Improvements	Total
Cost					
As at December 31, 2019	$ 60,378	$ 352,955	$ 352,667	$ 498,367	$ 1,264,367
Additions, net of foreign exchange impact	1,134	27,719	—	—	28,853
Disposals	—	(15,137)	—	—	(15,137)
As at December 31, 2020	61,512	365,537	352,667	498,367	1,278,083
Additions, net of foreign exchange impact	—	40,338	141,305	103,977	285,620
Disposals	—	—	(276,789)	(373,911)	(650,700)
As at December 31, 2021	$ 61,512	$ 405,875	$ 217,183	$ 228,433	$ 913,003
Amortization					
As at December 31, 2019	$ 44,708	$ 224,046	$ 250,587	$ 448,258	$ 967,599
Depreciation expense	2,942	40,024	12,308	33,683	88,957
Disposals	—	(15,137)	—	—	(15,137)
As at December 31, 2020	47,650	248,933	262,895	481,941	1,041,419
Depreciation expense	2,504	35,956	72,043	19,740	130,243
Disposals	—	—	(276,789)	(373,911)	(650,700)
As at December 31, 2021	$ 50,154	$ 284,889	$ 58,149	$ 127,770	$ 520,962
Net book value					
As at December 31, 2020	13,862	116,604	89,772	16,426	236,664
As at December 31, 2021	**$ 11,358**	**$ 120,986**	**$ 159,034**	**$ 100,663**	**$ 392,041**

Note 7: Leases

Our portfolio of leases consists of office spaces with lease terms generally between 3 to 6 years. We currently do not have leases with residual value guarantees, or leases not yet commenced to which we are committed. We have variable lease payments related to office space lease operating costs that are not material. Lease liabilities have been measured by discounting future lease payments using our incremental borrowing rate as rates implicit in the leases were not readily determinable.

During 2021, we recorded a lease modification and an addition related to the office lease extension for one of our subsidiaries and a new office space lease for our Canadian head office, respectively. The weighted-average rate applied was 15%.

(in Canadian dollars, except share amounts)

The following table summarizes our right-of-use assets outstanding at December 31:

	2021	2020
As at beginning of year	**$ 372,468**	$ 430,713
Additions	**208,976**	297,373
Lease modification	**323,782**	—
Depreciation expense	**(321,822)**	(357,230)
Foreign exchange impact	**847**	1,612
As at end of year	**$ 584,251**	$ 372,468

The following table summarizes our lease liabilities outstanding at December 31:

	2021	2020
As at beginning of year	**$ 402,059**	$ 506,275
Additions	**203,868**	297,373
Lease modification	**323,782**	—
Payment of lease liabilities	**(365,510)**	(460,724)
Interest expense on lease liabilities	**91,727**	68,526
Foreign exchange impact	**(1,173)**	(9,391)
As at end of year	**$ 654,753**	$ 402,059

Our total undiscounted lease liability as at December 31, 2021 is as follows:

	December 31, 2021
Less than one year	$ 372,707
One to five years	434,936
More than five years	—
Total undiscounted lease liability	$ 807,643

(in Canadian dollars, except share amounts)

Note 8: Warrant Derivative

On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share and one common share purchase warrant (see Note 9). Each common share purchase warrant entitled the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024.

Under IFRS 9 *Financial Instruments* and IAS 32 *Financial Instruments: Presentation*, warrants with an exercise price denominated in a currency that differs from an entity's functional currency are treated as a derivative measured at fair value with subsequent changes in fair value accounted for through profit and loss. Our warrants with an exercise price of US$0.90 meet this requirement and we have presented the fair value of these warrants as a current liability on the consolidated statement of financial position. As these warrants are exercised, the fair value at the date of exercise and the associated non-cash liability will be included in our share capital along with the proceeds from the exercise. If these warrants expire, the non-cash warrant liability is reversed through the consolidated statement of loss and comprehensive loss. There is no cash flow impact as a result of the accounting treatment for changes in the fair value of the warrant derivative or when warrants expire unexercised.

A reconciliation of the change in fair value of the warrant derivative is as follows:

	Number of Warrants Outstanding		Fair Value of Warrant Derivative
As at December 31, 2019	1,684,126	$	8,508,764
Exercised	(1,418,369)		(4,636,317)
Change in fair value	—		(3,491,928)
Foreign exchange impact	—		150,709
As at December 31, 2020	265,757	$	531,228
Exercised	(201,722)		(455,670)
Change in fair value	—		(17,117)
Foreign exchange impact	—		(2,424)
As at December 31, 2021	**64,035**	**$**	**56,017**

In 2021, we received cash proceeds of US$181,550 (2020 - US$1,276,532; 2019 - US$2,642,082) with respect to the warrants exercised.

We use the Black-Scholes valuation model to estimate fair value. The expected volatility is based on the Company's common share historical volatility less an estimated market participant risk adjustment. The risk-free interest rate is based on U.S. Department of Treasury benchmark treasury yield rates with an approximate equivalent remaining term in effect at the time of valuation and the expected life represents the estimated length of time the warrants are expected to remain outstanding.

The estimated fair value of the warrant derivative at December 31 was determined using the following assumptions:

	2021	2020
Fair value per warrant	**US$0.69**	US$1.57
Underlying share price	**US$1.39**	US$2.38
Risk-free interest rate	**0.39%**	0.10%
Expected hold period to exercise	**1.0 year**	1.0 year
Expected share price volatility	**90.00%**	90.00%
Expected dividend yield	**Nil**	Nil

(in Canadian dollars, except share amounts)

Note 9: Share Capital

Authorized:
Unlimited number of no par value common shares

	Shares	
	Number	**Amount**
As at December 31, 2018	17,399,749	$ 285,193,061
Issued pursuant to incentive share award plan	323,301	391,917
Issued pursuant to Common Stock Purchase Agreement[(a)]	2,494,943	5,403,385
Issued pursuant to "At the Market" (ATM) equity distribution agreement[(b)]	4,425,040	8,476,454
Issued pursuant to public offering[(c)]	4,619,773	3,314,429
Issued pursuant to warrant derivative exercised[(c)]	2,935,647	9,152,869
Share issue costs	—	(854,256)
As at December 31, 2019	32,198,453	$ 311,077,859
Issued pursuant to stock option plan	133,454	385,022
Issued pursuant to incentive share award plan	234,172	732,367
Issued pursuant to "At the Market" (ATM) equity distribution agreement[(b)(d)]	12,182,532	40,037,786
Issued pursuant to warrant derivative exercised[(c)]	1,418,369	6,332,778
Share issue costs	—	(1,741,640)
As at December 31, 2020	46,166,980	$ 356,824,172
Issued pursuant to stock option plan	123,159	381,771
Issued pursuant to incentive share award plan	150,899	543,833
Issued pursuant to "At the Market" (ATM) equity distribution agreement[(d)(e)]	8,401,029	34,168,071
Issued pursuant to warrant derivative exercised[(c)]	201,722	686,616
Share issue costs	—	(1,256,280)
As at December 31, 2021	**55,043,789**	**$ 391,348,183**

(a) On September 27, 2018, we entered into a Common Stock Purchase Agreement (the "Agreement") with Lincoln Park Capital Fund, LLC ("LPC"). Subject to the terms and conditions of the Agreement, we may sell up to US$26,000,000 worth of common shares to LPC over the 30-month term. This agreement expired in 2021, and no common shares were issued during 2021 and 2020. In 2019, we sold 2,477,665 common shares for gross proceeds of US$4,055,725 and issued 17,278 commitment shares. The commitment shares were fair valued at US$29,758 and were recorded as share issue costs in addition to cash share issue costs of $3,757.

(b) On October 24, 2018, we entered into an ATM equity offering sales agreement with Canaccord Genuity Inc. The ATM allowed us to issue common shares, at prevailing market price, with an aggregate offering value of up to US$30,000,000 over a 19-month period through the facilities of the Nasdaq Capital Market in the United States. This sales agreement expired on June 4, 2020 and no common shares were issued during 2021. In 2020, we sold 6,741,518 (2019 - 4,425,040) common shares for gross proceeds of US$17,538,342 (2019 - US$6,390,691) at an average price of US$2.42 (2019 - US$1.70). We received, net of commissions of US$526,150 (2019 - US$191,721), proceeds of US$17,012,192 (2019 - US$6,198,970). In total, we incurred share issue costs (including commissions) of $856,754 (2019 - $344,834).

(c) On August 16, 2019, pursuant to an underwritten public offering, 4,619,773 units were sold at a purchase price of US$0.81 per unit for gross proceeds of US$3,742,016. Each unit included one common share with a fair value of US$0.54 and one common share purchase warrant with a fair value of US$0.27. These warrants were classified as a financial liability (see Note 8). Each common share purchase warrant entitled the holder to purchase one common share at an exercise price of US$0.90 until August 16, 2024. We incurred transaction costs of $699,427 of which $466,284 were allocated to share issue costs and $233,143 were allocated to operating expenses, based on their relative fair values. In 2021, our share capital included fair value of $455,670 (2020 - $4,636,317; 2019 - $5,687,003) in addition to gross proceeds of US$181,550 (2020

(in Canadian dollars, except share amounts)

- US$1,276,532; 2019 - US$2,642,082) for the 201,722 (2020 - 1,418,369; 2019 - 2,935,647) warrants that were exercised (see Note 8).

(d) On June 15, 2020, we entered into an ATM equity distribution agreement with Canaccord Genuity Inc. The ATM allows us to issue common shares, at prevailing market price, with an aggregate offering value of up US$40,000,000 over a 25-month period through the facilities of the Nasdaq Capital Market in the United States. In 2021, we sold 5,685,097 (2020 - 5,441,014) common shares for gross proceeds of US$18,503,188 (2020 - US$12,628,775) at an average price of US$3.25 (2020 - US$2.11). We received, net of commissions of US$555,096 (2020 - US$378,863), proceeds of US$17,948,092 (2020 - US$12,249,911). In total, we incurred share issue costs (including commissions) of $707,421 (2020 - $884,886). On March 4, 2021, we terminated the June 15, 2020 ATM equity distribution agreement.

(e) On March 5, 2021, we entered into an ATM equity distribution agreement with Canaccord Genuity Inc. The ATM allows us to issue common shares, at prevailing market prices, with an aggregate offering value of up to US$80,000,000 over a 16-month period through the facilities of the Nasdaq Capital Market in the United States. In 2021, we sold 2,715,932 common shares for gross proceeds of US$8,654,892 at an average price of US$3.19. We received, net of commissions of US$259,647, proceeds of US$8,395,245. In total, we incurred share issue costs (including commissions) of $548,859.

Equity Warrants

On June 1, 2017, pursuant to an underwritten public offering, 16,445,000 units were sold for gross proceeds of $11,511,500. Each unit included one common share and one common share purchase warrant. Following the 2018 share consolidation, 9.5 common share purchase warrants entitled the holder to purchase one common share in the capital of the Company until June 1, 2022, at an exercise price of approximately $9.025. These warrants were classified as equity.

The following table summarizes our outstanding equity warrants:

	Number of Warrants Outstanding[(1)]		Warrant
As at December 31, 2019	16,443,500	$	3,617,570
As at December 31, 2020	16,443,500	$	3,617,570
As at December 31, 2021	**16,443,500**	**$**	**3,617,570**

(1) Exercisable into 1,730,894 common shares.

(in Canadian dollars, except share amounts)

Note 10: Share-Based Compensation

Stock Option Plan

We have granted stock options to acquire common stock through our stock option plan of which the following are outstanding at December 31:

	2021		2020		2019	
	Stock Options	Weighted Average Exercise Price $	Stock Options	Weighted Average Exercise Price $	Stock Options	Weighted Average Exercise Price $
Outstanding, beginning of year	**3,764,055**	**4.08**	2,246,947	5.31	1,249,361	8.73
Granted	**1,832,500**	**2.99**	1,817,500	3.19	1,020,000	1.42
Forfeited	**(110,612)**	**6.21**	(141,418)	3.84	(12,839)	11.35
Expired	**(28,364)**	**37.63**	(25,520)	62.49	(9,575)	29.07
Exercised	**(123,159)**	**1.94**	(133,454)	1.81	—	—
Outstanding, end of year	**5,334,420**	**3.53**	3,764,055	4.08	2,246,947	5.31
Exercisable, end of year	**3,165,679**	**3.82**	2,164,551	4.84	1,327,845	7.22

The following table summarizes information about the stock options outstanding and exercisable at December 31, 2021:

Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price $	Number Exercisable	Weighted Average Exercise Price $
$0.54 - $1.79	718,331	2.01	1.39	718,331	1.39
$1.80 - $3.01	1,026,573	3.85	2.36	531,173	2.47
$3.02 - $3.90	2,982,382	3.36	3.29	1,329,041	3.24
$3.91 - $7.41	478,516	1.72	6.09	458,516	6.13
$7.42 - $40.00	128,618	1.55	20.80	128,618	20.80
	5,334,420	3.08	3.53	3,165,679	3.82

Option grants vest either immediately or annually over periods ranging from one to three years.

We use the Black-Scholes valuation model to estimate fair value. We use historical data to estimate the expected dividend yield and expected volatility of our stock in determining the fair value of the stock options. The risk-free interest rate is based on the Government of Canada benchmark bond yield rates in effect at the time of grant and the expected life of the options represents the estimated length of time the options are expected to remain outstanding.

The estimated fair value of stock options granted during the year was determined using the following weighted average assumptions:

	2021	2020	2019
Risk-free interest rate	**0.66%**	0.34%	1.62%
Expected hold period to exercise	**3.0 years**	3.0 years	3.0 years
Expected share price volatility	**110.45%**	110.82%	97.90%
Expected dividend yield	**Nil**	Nil	Nil
Weighted average fair value of options	**$1.99**	$2.12	$0.87

(in Canadian dollars, except share amounts)

Incentive Share Award Plan

Restricted Share Units

We have granted RSUs to non-employee directors through our incentive share award plan. Grants of RSUs to non-employee directors vest either immediately, on the third anniversary date from the grant date or when the director ceases to be a member of the board. We have also granted RSUs to certain officers and employees of the Company. Grants of RSUs to certain officers and employees of the Company vest over a three-year period. The following RSUs are outstanding at December 31:

	2021	2020	2019
Outstanding, beginning of year	**134,618**	209,657	260,755
Granted	—	154,923	270,098
Released	**(94,058)**	(229,962)	(321,196)
Outstanding, end of year	**40,560**	134,618	209,657

(1) The weighted average fair value of the RSUs granted was nil in 2021 (2020 - $2.41 ; 2019 - $0.80).

Performance Share Units

We have also granted PSUs to certain officers and employees of the Company. Grants of PSUs require completion of certain performance criteria and cliff vest after 3 years or vest over a three-year period, depending on the grant. The following PSUs are outstanding at December 31:

	2021	2020	2019
Outstanding, beginning of year	**56,841**	61,051	63,156
Released	**(56,841)**	(4,210)	(2,105)
Outstanding, end of year	—	56,841	61,051

We have reserved 5,504,379 common shares for issuance relating to our outstanding equity compensation plans. Compensation expense related to stock options, RSUs and PSUs for the year ended December 31, 2021 was $3,825,901 (2020 - $2,558,974; 2019 - $1,470,153).

Note 11: Loss Per Common Share

Loss per common share is calculated using net loss for the year and the weighted average number of common shares outstanding for the year ended December 31, 2021 of 53,513,225 (2020 - 40,338,789; 2019 - 22,137,990). The effect of any potential exercise of our stock options and warrants outstanding during the year has been excluded from the calculation of diluted loss per common share, as it would be anti-dilutive.

(in Canadian dollars, except share amounts)

Note 12: Contract Liability

Regional licensing agreement
We entered into a regional licensing agreement (the "Licensing Agreement") with Adlai Nortye Biopharma Co., Ltd. ("Adlai") in November 2017. Under the terms of the Licensing Agreement, Adlai will have exclusive development and commercialization rights to pelareorep in China, Hong Kong, Macau, Singapore, South Korea, and Taiwan. We are entitled to receive upfront license fees, development and regulatory milestone payments, royalties, and sales-based milestone payments.

Contract liability
Our contract liability balance at December 31, which we expect to record in revenue over the next five years, is as follows:

	2021	2020
Balance, beginning of year	**$ 6,730,287**	$ 6,730,287
Regional licensing agreement	**—**	—
Revenue recognized	**—**	—
Balance, end of year	**$ 6,730,287**	$ 6,730,287
Contract liability - current	**—**	—
Contract liability - non-current	**6,730,287**	6,730,287
	$ 6,730,287	$ 6,730,287

Note 13: Commitments

We are committed to payments totaling $21,516,576 for activities related to our clinical trial, manufacturing, and translational science programs which are expected to occur over the next three years.

Our commitments include the committed payments related to our co-development agreement with Merck KGaA, Darmstadt, Germany, and Pfizer Inc ("Pfizer"), known as BRACELET-1, as this phase 2 clinical trial is jointly funded by Oncolytics and Pfizer. As at December 31, 2021, we recorded US$616,855 ($782,049) (December 31, 2020 - nil) in other receivables related to BRACELET-1 cost from Pfizer per the terms of the collaboration agreement and US$277,866 ($352,279) (December 31, 2020 - US$97,381 ($123,985)) in other liabilities representing future trial costs to be incurred.

Under a clinical trial agreement entered into with the Alberta Cancer Board (“ACB”), we have agreed to repay the amount funded under the agreement together with a royalty, to a combined maximum amount of $400,000 plus an overhead repayment of $100,000, upon sales of a specified product. We agreed to repay the ACB in annual installments in an amount equal to the lesser of: (a) 5% of gross sales of a specified product; or (b) $100,000 per annum once sales of a specified product commence.

Note 14: Contingencies

Assumption Agreement
In 1999, we entered into an agreement that assumed certain obligations (the “Assumption Agreement”) in connection with a Share Purchase Agreement (the “Share Purchase Agreement”) between SYNSORB and our former shareholders to make milestone payments and royalty payments.

As of December 31, 2021, a milestone payment was still outstanding for $1.0 million, due within 90 days of the first receipt from an Appropriate Regulatory Authority, for marketing approval to sell pelareorep to the public or the approval of a new drug application for pelareorep. This milestone payment, when payable, will be accounted for as research and development expense and will not be deductible for income tax purposes.

In addition to the milestone payment, payments may become due and payable in accordance with the Share Purchase Agreement upon realization of sales of pelareorep. If we receive royalty payments or other payments as a result of entering into

(in Canadian dollars, except share amounts)

partnerships or other arrangements for the development of the reovirus technology, we are obligated to pay to the founding shareholders 10.75% (2020 - 10.75%) of the royalty payments and other payments received. Alternatively, if we develop the reovirus treatment to the point where it may be marketed at a commercial level, the payments referred to in the foregoing sentence will be amended to a royalty payment of 2.15% (2020 - 2.15%) of Net Sales received for such products.

BRI "Work in Kind" Contribution
We entered into an engineering and process development agreement with the Biotechnology Research Institute of the National Research Council of Canada ("BRI"). The terms of this agreement include a "work in kind" contribution from BRI. In exchange for this "work in kind" contribution, we agreed to provide a royalty, contingent upon receiving Sales Revenue at the lesser of 0.5% of Sales Revenue or $20,000 per year until December 31, 2028.

Note 15: Income Taxes

The provision for income taxes recorded in the consolidated financial statements differs from the amount which would be obtained by applying the statutory income tax rate to the loss before income taxes as follows:

For the years ended December 31,	**2021**	**2020**	**2019**
Loss before income taxes	**$ (26,254,852)**	$ (22,505,057)	$ (33,122,888)
Statutory Canadian corporate tax rate	**23.00%**	24.00%	26.50%
Anticipated tax recovery	**(6,038,616)**	(5,401,214)	(8,777,565)
Foreign jurisdiction tax rate difference	**2,716,319**	3,237,898	3,088,811
Share-based compensation	**879,957**	614,154	389,591
Change in fair value of warrant derivative	**(3,937)**	(838,063)	3,341,334
Impact of Alberta rate change	**—**	96,028	3,758,175
Adjustment to opening tax pools	**(552,079)**	20,711	11,973
Other permanent differences	**44,290**	108,945	149,294
Expiry of tax benefits	**1,661,187**	—	—
Change in deferred tax benefits deemed not probable to be recovered	**1,342,306**	2,161,541	(1,961,613)
Current income taxes	**$ 49,427**	$ —	$ —

(in Canadian dollars, except share amounts)

As at December 31, 2021, we have the following approximate non-refundable federal investment tax credits and non-capital losses for income tax purposes in Canada, as well as non-capital losses in Barbados that are expected to expire in the following years, if not utilized:

	Canada		Barbados
	Investment tax credits	Non-capital losses	Non-capital losses
2022	465,000	—	42,826,000
2023	361,000	—	33,063,000
2024	228,000	—	15,990,000
2025	271,000	—	15,138,000
2026	520,000	9,809,000	16,575,000
2027	596,000	12,170,000	26,114,000
2028	622,000	—	13,280,000
2029	173,000	4,009,000	—
2030	91,000	4,774,000	—
2031	114,000	4,343,000	—
2032	381,000	2,873,000	—
2033	487,000	2,457,000	—
2034	270,000	2,472,000	—
2035	183,000	3,125,000	—
2036	41,000	6,430,000	—
2037	980	4,812,000	—
2038	22,000	5,056,000	—
2039	8,000	6,864,000	—
2040	—	9,724,000	—
2041	—	10,619,000	—
	$ 4,833,980	**$ 89,537,000**	**$ 162,986,000**

As well, we have unclaimed Canadian scientific research and experimental development expenditures available to reduce future years' taxable income of approximately $27,663,000. We also have unclaimed U.S. credits for increasing research activities available to reduce future years' taxable income of approximately $1,343,000 expiring between 2031 and 2041. We have not recorded the potential benefits of these tax pools in these consolidated financial statements.

Deferred tax assets are recognized, to the extent that it is probable that taxable income will be available, against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilized. The components of our unrecognized deferred tax asset are as follows:

For the years ended December 31,	**2021**	**2020**	**2019**
Net operating losses carried forward	**$ 25,157,950**	$ 21,487,804	$ 19,625,642
Scientific research and experimental development	**7,705,028**	6,362,152	6,338,542
Investment tax credits	**3,715,652**	4,068,105	4,222,016
Undepreciated capital costs in excess of book value of property and equipment and intellectual property	**350,695**	1,927,709	1,908,320
Share issue costs	**647,978**	689,193	611,072
Net capital losses carried forward	**6,472**	6,472	6,474
Unrecognized deferred tax asset	**$ 37,583,775**	$ 34,541,435	$ 32,712,066

(in Canadian dollars, except share amounts)

The Company currently files income tax returns in the various jurisdictions in which it operates. These tax returns are subject to periodic examinations in the normal course by the applicable tax authorities. Management is not aware of any other material income tax examination currently in progress by any taxing jurisdiction.

Note 16: Capital Disclosures

Our objective when managing capital is to maintain a strong statement of financial position. We achieve our objective by obtaining adequate cash resources to support planned activities which include the clinical trial program, product manufacturing, administrative costs, and intellectual property expansion and protection. We include shareholders' equity and cash and cash equivalents in the definition of capital.

As at December 31,	**2021**	**2020**
Cash and cash equivalents	**$ 41,262,044**	$ 31,219,574
Shareholders' equity	**$ 36,098,985**	$ 24,752,993

We do not have any debt other than accounts payable and accrued liabilities and lease liabilities. We also have commitments and potential contingent obligations relating to the completion of our research and development of pelareorep.

In managing our capital, we estimate our future cash requirements by preparing a budget and a multi-year plan annually for review and approval by our Board. The budget establishes the approved activities for the upcoming year and estimates the costs associated with these activities. The multi-year plan estimates future activity along with the potential cash requirements and is based on our assessment of our current clinical trial progress along with the expected results from the coming year’s activity. Budget to actual variances are prepared and reviewed by management and are presented quarterly to the Board.

Historically, funding for our plan is primarily managed through the issuance of additional common shares and common share purchase warrants that upon exercise are converted to common shares. Management regularly monitors the capital markets attempting to balance the timing of issuing additional equity with our progress through our clinical trial program, general market conditions, and the availability of capital. There are no assurances that funds will be made available to us when required.

On June 12, 2020, we renewed our short form base shelf prospectus (the "Base Shelf") that qualifies for distribution of up to $150,000,000 of common shares, subscription receipts, warrants, or units (the "Securities") in either Canada, the U.S. or both. Under a Base Shelf, we may sell Securities to or through underwriters, dealers, placement agents, or other intermediaries, and also may sell Securities directly to purchasers or through agents, subject to obtaining any applicable exemption from registration requirements. The distribution of Securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be subject to change, at market prices prevailing at the time of sale, or at prices related to such prevailing market prices to be negotiated with purchasers and as set forth in an accompanying Prospectus Supplement.

Renewing our Base Shelf provides us with additional flexibility when managing our cash resources as, under certain circumstances, it shortens the time period required to close a financing and is expected to increase the number of potential investors that may be prepared to invest in our company. Funds received as a result of using our Base Shelf would be used in line with our Board approved budget and multi-year plan. Our renewed Base Shelf will be effective until July 12, 2022.

Our Base Shelf allowed us to enter into our ATM equity distribution agreement in June 2020 and March 2021 (see Note 9). We use these equity arrangements to assist us in achieving our capital objective. These arrangements provide us with the opportunity to raise capital and better manage our cash resources.

We are not subject to externally imposed capital requirements and there have been no changes in how we define or manage our capital in 2021.

(in Canadian dollars, except share amounts)

Note 17: Financial Instruments

Fair value of financial instruments

Our financial instruments consist of cash and cash equivalents, other receivables, accounts payable and accrued liabilities, and warrant derivative. As at December 31, 2021, the carrying amount of our cash and cash equivalents, other receivables, and accounts payable and accrued liabilities approximated their fair value. The warrant derivative is a recurring Level 2 fair value measurement as these warrants have not been listed on an exchange and therefore do not trade on an active market. As at December 31, 2021, the fair value of our warrant derivative was $56,017 (December 31, 2020 - $531,228).

Financial risk management

Credit risk

Credit risk is the risk of financial loss if a counterparty to a financial instrument fails to meet its contractual obligations. We are exposed to credit risk on our cash and cash equivalents and other receivables from Pfizer in connection with the BRACELET-1 study (see Note 13) in the event of non-performance by counterparties, but we do not anticipate such non-performance. Our maximum exposure to credit risk at the end of the period is the carrying value of our cash and cash equivalents and other receivables.

We mitigate our exposure to credit risk connected to our cash and cash equivalents by maintaining our primary operating and investment bank accounts with Schedule I banks in Canada. For our foreign domiciled bank accounts, we use referrals or recommendations from our Canadian banks to open foreign bank accounts and these accounts are used solely for the purpose of settling accounts payable and accrued liabilities or payroll.

We mitigate our exposure to credit risk connected to our Pfizer other receivable by entering into collaborations with global biopharmaceutical companies.

Interest rate risk

Interest rate risk is the risk that future cash flows of a financial instrument will fluctuate because of changes in market interest rates. We are exposed to interest rate risk through our cash and cash equivalents. We mitigate this risk through our investment policy that only allows investment of excess cash resources in investment grade vehicles while matching maturities with our operational requirements.

Fluctuations in market rates of interest do not have a significant impact on our results of operations due to the short term to maturity of the investments held.

Foreign exchange risk

Foreign exchange risk arises from changes in foreign exchange rates that may affect the fair value or future cash flows of our financial assets or liabilities. We are primarily exposed to the risk of changes in the Canadian dollar relative to the U.S. dollar as a portion of our financial assets and liabilities are denominated in such currency. The impact of a $0.01 increase in the value of the U.S. dollar against the Canadian dollar would have decreased our net comprehensive loss in 2021 by approximately $240,000.

We mitigate our foreign exchange risk by maintaining sufficient foreign currencies, through the purchase of foreign currencies or receiving foreign currencies from financing activities, to settle our foreign accounts payable and accrued liabilities.

Significant balances in foreign currencies at December 31, 2021 are as follows:

	U.S. dollar
Cash and cash equivalents	$ 31,102,844
Other receivables	621,746
Accounts payable and accrued liabilities	(886,891)
	$ 30,837,699

(in Canadian dollars, except share amounts)

Liquidity risk

Liquidity risk is the risk that we will encounter difficulty in meeting obligations associated with financial liabilities. We manage liquidity risk through the management of our capital structure as outlined in Note 16. Accounts payable and accrued liabilities are all due within the current operating period.

Note 18: Additional Cash Flow Disclosures

Net Change In Non-Cash Working Capital

For the years ended December 31,	2021	2020	2019
Change in:			
Other receivables	**$ (776,394)**	$ 1,979,111	$ (2,017,122)
Prepaid expenses	**(348,600)**	286,391	(2,012,605)
Accounts payable and accrued liabilities	**182,855**	(1,368,203)	1,347,365
Other liabilities	**228,294**	(723,230)	807,877
Non-cash impact of foreign exchange	**(194,142)**	35,710	78,708
Change in non-cash working capital related to operating activities	**$ (907,987)**	$ 209,779	$ (1,795,777)

Other Cash Flow Disclosures

For the years ended December 31,	2021	2020	2019
Cash interest received	**$ 190,339**	$ 189,720	$ 274,094
Cash taxes paid	**$ 34,959**	$ 12,080	$ 5,448

Note 19: Indemnification of Officers and Directors

Our corporate by-laws require that, except to the extent expressly prohibited by law, we will indemnify our officers and directors against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment reasonably incurred in respect of any civil, criminal, or administrative action or proceeding as it relates to their services to the Company. The by-laws provide no limit to the amount of the indemnification. We have purchased directors' and officers' insurance coverage to cover claims made against the directors and officers during the applicable policy periods. The amounts and types of coverage have varied from period to period as dictated by market conditions. We believe that we have adequate insurance coverage; however, there is no guarantee that all indemnification payments will be covered under our existing insurance policies.

There is no pending litigation or proceeding involving any of our officers or directors as to which indemnification is being sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Note 20: Economic Dependence

We are economically dependent on our toll manufacturers. We primarily use one toll manufacturer in the U.S. to produce the clinical grade pelareorep active ingredient and a second toll manufacturer to formulate finished product required for our clinical trial program. Any significant disruption of the services provided by our primary toll manufacturers has the potential to delay the progress of our clinical trial program. We have used another toll manufacturer in the U.K. that has also produced clinical grade pelareorep at a smaller scale. We have attempted to mitigate this risk by establishing stability profiles for long-term storage of pelareorep, and producing sufficient pelareorep in advance of patient enrollment in a particular clinical trial.

(in Canadian dollars, except share amounts)

Note 21: Other Expenses

The following details highlight certain components of the research and development and operating expenses classified by nature. The foreign exchange loss as presented separately on the face of the consolidated statement of loss and comprehensive loss is also classified as a research and development expense. Remaining research and development and operating expenses include expenses paid to third parties.

For the years ended December 31,	2021	2020	2019
Included in research and development expenses:			
Employee compensation and benefits	**$ 4,645,264**	$ 3,775,263	$ 3,096,231
Share-based compensation	**2,086,608**	1,043,373	561,420
Included in operating expenses			
Depreciation - property and equipment	**$ 130,243**	$ 88,957	$ 122,982
Depreciation - right-of-use assets	**321,822**	357,230	362,592
Employee compensation and benefits	**2,542,210**	2,635,170	2,555,274
Share-based compensation	**1,739,293**	1,515,601	908,733
Transaction cost, warrant derivative	**—**	—	233,143

Note 22: Related Party Transactions

Compensation of Key Management Personnel

Key management personnel are those persons having authority and responsibility for planning, directing and controlling our activities as a whole. We have determined that key management personnel consists of the members of the Board of Directors along with certain employees of the Company.

For the years ended December 31,	2021	2020	2019
Short-term employee compensation and benefits	**$ 3,918,564**	$ 3,514,527	$ 3,786,667
Termination benefits	**—**	495,175	—
Share-based compensation	**2,703,256**	1,757,723	1,123,408
	$ 6,621,820	$ 5,767,425	$ 4,910,075

Note 23: Subsequent Events

(a) Between January 1, 2022 to March 2, 2022, we issued 2,050,240 common shares for gross proceeds of US$3,560,397 through our March 2021 ATM equity offering sales agreement.

(b) In February 2022, we paid a non-refundable deposit of US$1,368,000 related to a production service agreement (the "Agreement") entered on December 23, 2021 with our primary toll manufacturer. Under IFRS, the Agreement was deemed an executory contract at signing. As a result, the contractual obligation to pay the deposit was not recorded in our December 31, 2021, consolidated financial statements.

Shareholder Information

For public company filings please go to www.sedar.com or contact us at:

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Kirk Look, CA
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