

MANAGEMENT'S DISCUSSION AND ANALYSIS OF OPERATING RESULTS AND FINANCIAL CONDITION OF PROMIS NEUROSCIENCES INC.

FOR THE YEARS ENDED DECEMBER 31, 2021 AND 2020

The following information, prepared as of March 16, 2022, should be read in conjunction with ProMIS Neurosciences, Inc.'s (ProMIS or the Company) audited consolidated financial statements for the years ended December 31, 2021 and 2020 and related notes, which are prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB), in Canadian dollars and the Annual Information Form dated March 16, 2022.

Forward looking Statements

This Management's Discussion and Analysis (MD&A) contains forward-looking statements about the Company's business, financial condition, research and development and potential future products, including without limitation, the costs of research and development programs, the potential listing of the Company's shares on a stock exchange in the United States, and timing in achieving research and development and commercialization milestones. Forward-looking statements can be identified, by the use of forward-looking terms such as "anticipate", "believe", "expect", "plan", "will," "can", "may," "could" or "should" or comparable terms.

The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of many factors, including, without limitation, the need for extensive additional research and development, which is costly and time-consuming and may not produce anticipated or useful results; scientific research and development risks; intellectual property risks; partnership/strategic alliance risks; the actions of competitors; the need for regulatory approvals of proposed products, such as by the U.S. Food and Drug Administration (FDA), which is not assured; whether the Company can meet the qualitative and quantitative requirements related to listing on a stock exchange in the United States, which such listing is not assured; product liability and insurance risks; the need for future human clinical testing, the occurrence and success of which is not assured; changes in business strategy or development plans; expectations regarding the Company's available cash resources; expectations regarding revenue generation; and the need for additional capital, which may not be obtained or on favorable terms; and the Company may not produce any products or, if it does, that such products may not be commercially successful.

By their nature, forward-looking statements involve numerous assumptions, inherent risks and uncertainties, both general and specific, that could cause actual results and experience to differ materially from the anticipated results or other expectations, predictions, forecasts or projections expressed in such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements and should review the "Risks and Uncertainties" below.

The Company operates in a highly competitive environment that involves significant risks and uncertainties, some of which are outside the Company's control. It is subject to risks associated with the biotechnology industry, including risks inherent in research and development, commencement, completion and results of preclinical and clinical studies, the controlled use of hazardous materials, uncertainties related to product approval and decisions of regulatory agencies with respect to the Company's therapeutic product candidates and companion diagnostics, the lack of product revenue and the Company's history of losses, enforcement and protection of the Company's intellectual property, the

requirement and the ability to raise additional capital, potential competitors, the ability to attract and maintain relationships with collaborative partners, dependence on key personnel, government regulations, and the ability to successfully market the Company's diagnostic and therapeutic product candidates. Readers should review the more detailed discussion of such risk and uncertainties set out in "Risk Factors" in the Company's Short Form Base Shelf Prospectus dated June 30, 2021 (the Prospectus), Annual Information Form dated March 16, 2022 (the AIF), and "Risks and Uncertainties" below.

Risks and Uncertainties

COVID-19

Impacts resulting from the COVID-19 pandemic have resulted in a widespread health crisis that has already adversely affected the economies and financial markets of many countries around the world. The international response to the spread of COVID-19 has led to significant restrictions on travel; temporary business closures; quarantines; global stock market and financial market volatility; a general reduction in consumer activity; operating, supply chain and project development delays and disruptions; and declining trade and market sentiment; all of which have and could further affect the world economy.

The extent to which the COVID-19 pandemic may impact the Company's business, preclinical research and development activities will depend on future developments which are highly uncertain and cannot be predicted with confidence, such as the duration of the outbreak, travel restrictions and social distancing in Canada, the United States and other countries, business closures or business disruptions and the effectiveness of actions taken by governments around the globe to contain and treat the disease. International scientific conferences at which the Company has been invited to present have been postponed, cancelled or will be held online instead, which diminishes exposure and the opportunity to meet with collaborators and potential partners. These scientific conferences have started to be held in person with an option to attend online. Vendors performing work for the Company have remained open, although they have indicated that their timelines are now somewhat longer. The current global uncertainty and its effect on the local and global economies may also have an adverse effect on the Company's ability to secure additional financing to continue its research and development programs relationship (see risks described under the heading "*Risk Factors*" in the Company's AIF and its Prospectus).

The Company

ProMIS is applying its patented technology platform to build a portfolio of antibody therapies, therapeutic vaccines, and diagnostics in neurodegenerative diseases, including Alzheimer's disease (AD), multiple system atrophy (MSA), and amyotrophic lateral sclerosis (ALS). The Company also plans to investigate additional synucleinopathies, including Parkinson's disease (PD) and dementia with Lewy bodies (DLB). These diseases share a common biologic cause – misfolded versions of proteins, that otherwise perform a normal function, become toxic and kill neurons, resulting in disease. ProMIS' technology platform is an example of the advances in drug discovery enabled by computational power, *in silico* discovery, and/or artificial intelligence. We believe this platform provides an advantage in selectively targeting the toxic misfolded proteins with therapeutics.

As of the date of this MD&A, ProMIS has focused on three key development programs, which have not generated revenue related to the operations of the Company. The following is an update on each such project and expenditures incurred during the period.

ProMIS lead program PMN310: Potential Next Generation Therapy for AD

PMN310, an antibody therapy selective for toxic oligomers in AD, is our lead product candidate. In the fourth quarter of 2021, the Company made significant progress on the program elements discussed in the prospectus supplement dated August 2021.

Producer cell line development is advancing. The genetic sequence of PMN310 has been transfected into Chinese hamster ovary (CHO) cells, the standard production cells for antibody manufacturing. We are updating cell line development to an IgG1 isotype, an antibody with “effector” function.

We have contractually secured manufacturing slots for material to be used in Good Laboratory Practice (GLP) toxicology studies and for current Good Manufacturing Practice (cGMP) material for use in the initial clinical trials of PMN310, if allowed to proceed. In addition, we have contractually secured slots for GLP toxicology studies of various durations in nonhuman primates to support our single ascending dose/multiple ascending dose (SAD/MAD) trials. We have initiated pilot toxicology and pharmacokinetics (PK) studies to provide important information to support our GLP toxicology studies. We expect those PK studies to be completed in the second quarter of 2022. We also have secured slots for pilot and GLP tissue cross reactivity (TCR) studies, which are required for an investigational new drug (IND) application, in addition to GLP toxicology. The pilot TCR study was initiated fourth quarter of 2021 and have an expected completion in second quarter 2022. Development of assays to measure drug levels in both nonhuman primate and human studies have been initiated and are expected to complete development in second quarter of 2022. Vendors have been contracted to perform these assays for our GLP studies.

In addition, we have initiated formulation development with two vendors, with the goal of developing a high concentration formulation that can support subcutaneous dosing as a future step to improve overall convenience and patient compliance. We have achieved stable concentrations of over 80mg/ml and will explore concentrations up to or above 150mg/ml. In a typical subcutaneous injection of 2 ml, a high concentration formulation could deliver a dose of 300mg, or two injections could deliver 600 mg. For an average 70kg weight individual, those injections equate to a dose of ~4mg/kg – 8mg/kg. We expect completion of formulation work in the first half of 2022.

Cash expenditures for PMN310 in the six months ended December 31, 2021 were approximately \$3.8 million. The largest component of this was a \$2.7 million up-front and additional payments to our manufacturing vendor to secure manufacturing slots necessary for the filing of an IND and dosing of patients in our initial clinical trials. In addition, \$834,000 of other external expenses and \$326,000 was incurred for consulting fees of the program team, not including allocations of senior management time.

ALS Portfolio, including TAR-DNA binding protein 43 (TDP-43)

The top priority for our scientific validation efforts, largely centered in Dr. Neil Cashman’s laboratory at the University of British Columbia (UBC), is currently the Company’s ALS portfolio. This portfolio includes antibodies targeting mis-folded forms of TDP-43, RACK1, and superoxide dismutase 1 (SOD1). TDP-43 is the focus of the PMN267 program. We are conducting both *in vitro* assays (assessing the impact of drug on patient-derived motor neuron cell lines) and *in vivo* assays (mouse model) and expect initial data in the first half of 2022. In addition, we are exploring different therapeutic modalities in our ALS portfolio. We have disclosed data from our proof of concept work exploring “intrabody” versions of TDP-43 antibodies, a research proxy for a vectorized antibody in a gene therapy vector. We believe this therapeutic approach could enhance therapeutic benefit inside the motor neurons where mis-folded TDP-43 aggregates are a root cause of disease pathology, leading to toxic mis-folding of other proteins including RACK1 and SOD1. ProMIS’ capability to create highly selective antibodies is most

critical in this application, since physiologically important TDP-43 is active inside the neuron and should be avoided by the intrabodies in order to reduce the possibility of harmful side effects. Based on the characterization of selected antibodies/intrabodies to date, we have declared PMN267 as our lead product candidate for the treatment of ALS. In addition, with world expert RNA scientist, Dr. Michelle Hastings, ProMIS is exploring antisense oligonucleotide (ASO) therapeutic approaches, and with Dr. Justin Yerbury, is exploring protein degradation (PROTACS) approaches in ALS.

While targeting individual misfolded proteins is expected to provide a benefit, we believe an optimal disease modifying therapeutic approach to ALS may require addressing multiple mis-folded protein targets (TDP-43, RACK1, and SOD1), with different modalities (antibody, gene therapy vectorized antibody, ASO, PROTAC). We are exploring the scientific interaction between therapies addressing these various targets, and our goal is to identify and develop a portfolio of complementary therapies that alone and/or together may play a significant role in effectively treating disease.

In the six months ending December 31, 2021, our total expenditures for the ALS portfolio were \$299,000, not including allocations of senior management time.

Other key projects

In the six months ended December 31, 2021 we made significant progress on other key projects, in addition to our top priorities PMN310 and PMN267. We have engaged with a leading global expert in alpha synuclein to collaborate on further *in vitro* and *in vivo* validation of our alpha synuclein potential therapies, both as extracellular antibodies and as intrabodies. Based on the characterization of selected antibodies to date, we have declared PMN442 as our lead alpha synuclein product candidate. Data from *in vivo* testing in mouse disease models are expected in the second half of 2022.

In our amyloid vaccine program, based on successful pilot work, University of Saskatchewan vaccine and infectious disease organization (VIDO) is conducting mouse studies in collaboration with ProMIS for the development of an optimized vaccine against Alzheimer's disease, conjugating our peptide antigens to a carrier protein in formulation with an adjuvant. David Wishart, our Chief Physics Officer and his team are pursuing multiple novel targets including DISC1 involved in the pathogenesis of schizophrenia.

Additions to Board of Directors

On May 19, 2021, the Company appointed Neil Warma, to the Company's Board of Directors. Mr. Warma has been a healthcare entrepreneur for more than 25 years having managed and advised numerous biotechnology and pharmaceutical companies.

On September 1, 2021, the Company appointed Josh Mandel-Brehm to the Company's Board of Directors. Josh Mandel-Brehm has held various key business development and operations leadership roles at leading biotech companies.

On September 23, 2021, the Company appointed Maggie Shafmaster, PhD, JD, to the Company's Board of Directors. Dr. Shafmaster has nearly 30 years of experience providing intellectual property expertise to biotechnology and pharmaceutical industries.

Recent Corporate Highlights

In January 2021, we announced an outline of our strategic priorities and action plan for 2021. The priorities for 2021 fall into three key areas: near term focus on rare neurodegenerative diseases, especially

ALS; Use of our proprietary platform to support portfolio expansion; advancement of our PMN310 antibody lead program for Alzheimer's disease.

In March 2021, the Company completed a US\$7.0 million (CDN\$8.7 million) private placement of unsecured convertible debentures (Debentures). The Debentures are convertible into common shares at the option of the holder at a conversion price of US\$0.10 per share and accrue interest at 1% per annum, calculated and payable in arrears, commencing on March 22, 2022 and every anniversary thereafter, until maturity. At the Company's election, accrued interest may be paid in cash or common shares by dividing the interest payable by the 5-day volume weighted average trading price (VWAP).

The Debentures mature on March 22, 2026. Prior to the maturity date, the Company may force conversion of the Debentures at the conversion price upon raising US\$50.0 million in equity and/or debt cumulatively. On the maturity date, the Company may redeem the outstanding principal amount of the Debentures in either cash or common shares at the then VWAP less a 10% discount or a combination thereof at its election. Amounts redeemed in common shares on the maturity date will be subject to Toronto Stock Exchange (TSX) approval.

On May 12, 2021, Rudolph Tanzi, Ph.D., was appointed as the Chair of the Company's Scientific Advisory Board. Dr. Tanzi is the Joseph P. and Rose F. Kennedy Professor of Neurology at Harvard University and Vice-Chair of Neurology, Director of the Genetics and Aging Research Unit, and Co-Director of the Henry and Allison McCance Center for Brain Health at Massachusetts General Hospital.

On May 21, 2021, the Company re-initiated the path to an IND application for PMN310 in AD with the start of producer cell line development. This key first step in the manufacturing of antibody therapeutics is being conducted by Selexis, SA, using its proprietary SURE*technology* Platform™.

On May 25, 2021, the Company announced initiation of commercialization of its COVID-19 serology assay and appointed Owen Dempsey to lead the commercialization program.

On May 27, 2021, Dr. David Wishart, Distinguished University Professor in the Departments of Biological Sciences and Computing Science at the University of Alberta, was appointed as Chief Physics Officer at ProMIS.

On June 3, 2021, the Company announced that it had filed a preliminary Prospectus with the securities regulators in each of the provinces and territories of Canada, except Quebec. The Prospectus, when made final, will allow the Company to make offerings of common shares, warrants, units, debt securities, subscription receipts, convertible securities or any combination thereof for up to an aggregate total of US\$50 million during the 25-month period that the Prospectus is effective.

On July 2, 2021, the Company announced the voting results of its annual meeting of shareholders held on June 30, 2021, in Vancouver, British Columbia, Canada. All resolutions described in the Management Proxy Circular and placed before the meeting were approved by the shareholders.

On July 8, 2021, the Company announced that it had filed and obtained a receipt for the Prospectus with the securities regulators in each of the provinces and territories of Canada, except Quebec.

On August 25, 2021, the Company announced the closing of a public offering for gross proceeds of US\$20,125,000 (CDN\$25,522,525).

On October 7, 2021, ProMIS announced that it would hold a special general meeting of shareholders (the "Special Meeting") on December 1, 2021. The Company set October 18, 2021, as the record date for the

Special Meeting. The purpose of the Special Meeting was to ask shareholders to grant the Board of Directors (the “Board”) the authority, exercisable in the Board’s discretion, to consolidate (or reverse split) the Company’s issued and outstanding common shares in furtherance of a potential listing of the Company’s shares on a stock exchange in the United States, subject to meeting applicable quantitative and qualitative listing standards of such stock exchange. There can be no assurance that the Company will complete a listing on a stock exchange in the United States.

On October 22, 2021, the Company announced the expansion of its senior management team to lead development programs with special focus on PMN310 for AD. The following changes were announced:

Eugene Williams, formerly Executive Chairman, accepted the role of Chairman and Chief Executive Officer (CEO), with immediate effect.

Dr. Elliot Goldstein stepped down from his role as CEO and President and continues to support ProMIS as special consultant to the CEO.

Gavin Malenfant joined the ProMIS senior management team as Chief Operating Officer. Mr. Malenfant brings over 30 years of biopharmaceutical experience to the ProMIS team, with special focus on providing expert management and oversight of drug development programs. The top priority in the near term will be to support the timely development of the PMN310 program to completion of IND enabling activities, anticipated in the second half of 2022. Mr. Malenfant will be working with the CEO and leadership of the PMN310 project team, whose key members include:

- Michael Grundman, MD, MPH, Senior Medical Adviser. Prior to joining the pharmaceutical industry, Dr. Grundman was Associate Director of the Alzheimer’s Disease Cooperative Study at the University of California, San Diego (UCSD) and is currently an Adjunct Professor of Neurosciences at UCSD. Dr. Grundman previously served on the FDA Peripheral and Central Nervous System Advisory Committee.
- Ernest Bush, PhD, Head of Pharmacology/Toxicology. Dr. Bush has 35 years of experience working in the field of biomedical R&D, driving development of innovative therapies for treatment of human diseases. He has served as a consultant in non-clinical development providing advice and insight into IND enabling programs, pre-clinical data-set analysis for due diligence and evaluation and audits of GLP bioanalytical and toxicology facilities and studies.
- Dennis Chen, PhD, Head of Manufacturing. Dennis has over 25 years of prior pharmaceutical experience in working with companies from virtual to global and all phases of development. Dennis provides Regulatory Affairs, Chemistry, CMC and Biopharmaceutical Development support to ProMIS with expertise in peptides, proteins and oligonucleotides.

On December 2, 2021, the shareholders of the Company passed the share consolidation resolution at its special general meeting of shareholders.

Financial highlights as of and for the year ended December 31, 2021, include:

- In March 2021, the Company completed a US\$7.0 million (CDN\$8.7 million) private placement of unsecured convertible debentures (Debentures).
- In August 2021, the Company raised gross proceeds of \$25,522,525 (\$23,426,746 net of share issuance costs).

- At December 31, 2021, the Company had funds available for operating activities (cash, cash equivalents and short-term investments) of \$21,486,042, as compared to \$1,071,004 at December 30, 2020. Our cash is sufficient to finance the Company's operations through the end of 2023.

Comparison of the Years Ended December 31, 2021 and 2020

The following table summarizes our results of operations for the years ended December 31, 2021 and 2020:

	Years Ended December 31,		Change
	2021	2020	
Revenues	\$ 16,410	\$ 1,787	\$ 14,623
Operating expenses			
Research and development	6,310,299	3,183,149	3,127,150
General and administrative	4,224,609	2,481,030	1,743,579
Total operating expenses	10,534,908	5,664,179	4,870,729
Loss from operations	10,518,498	5,662,392	4,856,106
Other expense	1,265,917	-	1,265,917
Net loss	<u>\$ 11,784,415</u>	<u>\$ 5,662,392</u>	<u>\$ 6,122,023</u>

Revenues

The increase in revenues in the year ending represent royalties received on the Company's assays.

Research and Development

Research and development expenses consist of the following:

	Years Ended December 31,		Change
	2021	2020	
Direct research and development expenses by program:	\$ 4,293,649	\$ 976,700	\$ 3,316,949
Indirect research and development expenses:			
Personnel related (including stock-based compensation)	812,278	1,672,145	(859,867)
Consulting expense	588,164	173,712	414,452
Patent expense	557,957	344,864	213,093
Other operating costs	58,251	15,728	42,523
Total research and development expenses	<u>\$ 6,310,299</u>	<u>\$ 3,183,149</u>	<u>\$ 3,127,150</u>

The increase in research and development expense for the year ended December 31, 2021 compared to the year ended December 31, 2020 reflects increased costs associated with external contract research organizations for internal programs of \$3,316,949 as the Company ramps up key internal programs and contract research organization costs, increased patent expense of \$213,093 due to increased maintenance and filing fees, increased consulting expense of \$414,452 and increase in amortization of property and

equipment and intangible asset of \$42,523 offset by decreased contract salaries and associated costs of \$705,852 due to reduction in compensation to management and attrition of contracted staff and decreased share-based compensation of \$154,015 due to forfeiture of unvested/vested share options due to termination of consulting arrangement.

General and Administrative

General and administrative expenses consist of the following:

	Years Ended December 31,		Change
	2021	2020	
	(in thousands)		
Personnel related (including stock-based compensation)	\$ 1,279,197	\$ 1,191,967	\$ 87,230
Professional and consulting fees	2,801,237	1,311,427	1,489,810
Facility-related and other	144,175	(22,364)	166,539
Total general and administrative expenses	<u>\$ 4,224,609</u>	<u>\$ 2,481,030</u>	<u>\$ 1,743,579</u>

The increase for the year ended December 31, 2021, compared to the same period in 2020, is primarily attributable to an increase in legal expenses of \$159,113, increased other professional and consulting fees of \$486,398, additional one-time fees of \$459,051 related to a potential listing on a stock exchange in the United States (subject to meeting applicable quantitative and qualitative listing standards of such stock exchange), increased share-based compensation of \$306,695 related to the grant of share options, expensing of share issuance costs associated with the issuance of warrants in the August 2021 financing and base shelf costs of \$717,806 and foreign exchange of expense of \$166,539 on U.S denominated assets and liabilities offset by a reduction in contracted corporate salaries and associated facility costs of \$219,465 due to reduction in compensation to management and attrition of contracted staff and a decreased investor relations of \$332,558 due to a reduction of investor relation activities and consultants. Note that there can be no assurance that the company will complete a listing on a stock exchange in the United States.

Other Expense

The increase in other expense is primarily the valuation of the derivative liability associated with the convertible debenture financing and associated interest expense of \$2,990,374 offset by the decrease in fair value of the warrant liability of \$1,649,259 and the gain on the sale of lab equipment of \$75,198.

Liquidity and Capital Resources

The Company is a development stage company as it has had minimal recurring revenues to date and does not expect to have significant revenues until a product candidate obtains applicable regulatory approval or it establishes collaborations that provide funding, such as licensing fees, milestone payments, royalties, research funding or otherwise. Operations have been financed through the sale of equity securities, convertible unsecured debentures and the conversion of common share purchase warrants and stock options. The Company's objectives, when managing capital, are to ensure there are sufficient funds available to carry out its research, development and eventual commercialization programs. When the Company has excess funds, it manages its liquidity risk by investing in highly liquid corporate and government bonds with staggered maturities to provide regular cash flow for current operations. The Company does not hold any asset-backed commercial paper and its cash and cash equivalents are not

subject to any external restrictions. The Company also manages liquidity risk by continuously monitoring actual and projected cash flows. The Board of Directors reviews and approves operating and capital budgets, as well as any material transactions not in the ordinary course of business. The majority of accounts payable and accrued liabilities have maturities of less than three months. The Company is dependent on its ability to generate revenues from its products or secure additional financing in order to continue its research and development activities and meet its ongoing obligations.

In March 2021, the Company completed a US\$7.0 million (CDN\$8.7 million) private placement of Debentures (the March 22 Financing). The Company incurred \$60,825 of issuance costs in connection with the private placement of which \$30,999 allocated to the debentures and amortized over the life of the debenture. The Debentures are convertible into common shares at the option of the holder at a conversion price of US\$0.10 per share and accrue interest at 1% per annum, calculated and payable in arrears, commencing on March 22, 2022, and every anniversary thereafter, until maturity date. At the Company's election, accrued interest may be paid in cash or common shares by dividing the interest payable by the 5-day volume-weighted average trading price (VWAP).

The Debentures mature on March 22, 2026. Prior to the maturity date, the Company may force conversion of the Debentures at the conversion price upon raising US\$50.0 million in equity and/or debt cumulatively. On the maturity date, the Company may redeem the outstanding principal amount of the Debentures in either cash or common shares at the then VWAP less a 10% discount or a combination thereof at its election. Amounts redeemed in common shares on the maturity date will be subject to TSX approval.

The conversion feature has been recognized as a derivative liability carried at Fair Value through Profit & Loss (FVTPL). The derivative liability has been valued at \$4,291,384 at issuance date using a scenario-based valuation method using a Monte Carlo simulation model (Monte Carlo model), volatility of 101.43% and a risk-free interest rate of 0.15%. The derivative liability at December 31, 2021 has been valued at \$6,808,697 using a scenario-based valuation method using a Monte Carlo model, volatility of 95.95% and a risk-free interest rate of 1.15%. The amount of liability as at December 31, 2021 has been allocated to the principal component of the Debenture which is being recognized at amortized cost and carried using the effective interest rate, resulting in a total liability at December 31, 2021 of \$11,752,147.

In August 2021, the Company announced the closing of a public offering of 125,781,250 units at a price of US\$0.16 per unit for gross proceeds of US\$20,125,000 (CDN\$25,522,525, \$23,426,746 net of issuance costs). Each unit consisted of one common share and one-quarter share purchase warrant. Each warrant entitles the holder thereof to purchase one share at an exercise price of US\$0.21 per share at any time for five years.

Related to the financing, the Company compensated certain intermediaries US\$1,408,750 and issued 8,804,687 compensation warrants. Each warrant entitles the holder thereof to purchase one common share at an exercise price of US\$0.16 per share at any time for five years. The compensation warrants have been issued as a consideration for services of the intermediaries and are accounted for as equity-settled instruments in accordance with IFRS 2, Share-based payment. Fair value of the compensation warrants of \$1,215,323 was recorded in other equity.

The allocation of the \$0.16 per unit issue price to the common shares and the common share warrants was determined based on the fair values of the warrants and the residual to equity. The fair value of the warrants was determined using the Black-Scholes option pricing model (Black Scholes). The common shares issued were allocated a price of US\$0.137 per share and the common share warrants were allocated a price of US\$0.023. Assumptions used to determine the value of the common share warrant were: an

average risk-free interest rate of 0.87%; dividend yield of nil%; weighted average expected volatility of 96%; and expected life of 60 months.

The common share warrants are accounted for as a warrant liability since the exercise price is in USD while the Company's functional currency is CDN. The initial balance was calculated using the parameters above resulting in a balance of \$3,717,137. As of December 31, 2021, the fair value of the warrants was calculated using the Monte Carlo model with the following parameters: weighted volatility of 68.94%, risk free interest rate of 1.348% and spot price of \$0.1139. The balance at December 31, 2021 was \$2,055,602. The issuance costs allocated to the warrants based on the relative fair values of the warrants, amounted to \$565,105 and were charge to general and administrative expense in the consolidated statement of operations and comprehensive loss.

The Company incurred a loss of \$11,784,415 for the year ended December 31, 2021, and had an accumulated deficit of \$83,032,359 at December 31, 2021. Management estimates that the cash on hand could fund its operating plan beyond twelve months. The Company is pursuing financing to further develop certain of the Company's scientific initiatives, but there is no assurance that these initiatives will be successful, timely or sufficient. Consequently, the Company's ability to continue as a going concern beyond that point is dependent on its ability to generate revenues from its products or secure additional financing in order to continue its research and development activities.

The Company's net cash used in operations was \$11,838,176 for the year ended December 31, 2021, as compared with \$4,354,704 for the year ended December 31, 2020. The increase in the cash used in operations is primarily a result of making up front cash payments to critical vendors for the PMN310 program, in order to secure manufacturing slots and ensure rapid timelines. The company has working capital of \$21,243,356 for the year ended December 31, 2021, as compared with negative working capital of \$1,160,151 for the year ended December 31, 2020. Management is actively monitoring cash forecast and managing performance against its forecasts. Management will remain cautious in its capital management approach and continue to look for new sources of financing in the next 12 months, to fund its working capital to advance the Company's operations.

The Company's working capital requirements may fluctuate in future periods depending on numerous factors, including: the results of research and development activities; progress or lack of progress in its diagnostic or therapeutic research and development programs; preclinical studies or clinical testing; the ability to establish corporate collaborations and licensing agreements; the Company's ability to access research and development funding and/or equity financing; changes in the focus, direction, or costs of research and development programs; the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; competitive and technological advances; the potential need to develop, acquire or license new technologies and products; new regulatory requirements implemented by applicable regulatory authorities; the timing and outcome of the regulatory review process; or commercialization activities, if any.

Financial Instruments

Financial instruments consist of cash and cash equivalents, short-term investments, accounts receivable, accounts payable, accrued liabilities, and warrants and derivatives measured at fair value. Cash and cash equivalents are used to fund research activities and administrative expenses. The Company has an investment policy that establishes guidelines for investment eligibility, credit quality, liquidity and foreign currency exposure.

The Company manages its exposure to credit loss and liquidity risk by placing its cash with major financial institutions. Cash and cash equivalents are not subject to any external restrictions.

As at December 31, 2021, cash and cash equivalents consisted of cash on deposit.

Critical accounting estimates and judgments

The preparation of financial statements in accordance with IFRS requires management to make judgments and/or estimates. It also requires management to exercise judgment in applying accounting policies. These judgments and estimates are continuously evaluated and are based on management's experience and knowledge of the relevant facts and circumstances having regard to prior experience and expectations about future events that are believed to be reasonable under the circumstances. Revisions to accounting estimates are recognized in the year in which the estimate is revised and in any future year affected. Actual results may differ from those estimates.

Significant estimates relate to the measurement of share-based compensation. The fair value of share-based compensation, comprising stock options and common share purchase warrants, is determined using Black-Scholes. The allocation of unit issue price to common shares and common share warrants is determined based on the relative fair values of the common shares and warrants. Significant estimates are required to determine expected volatility, weighted average life of options, risk free interest rate and estimated forfeitures. The Company determines these assumptions mainly by reference to historical experience.

Significant estimates related to the measurement of convertible debt and the associated derivative liability. The initial allocation of the value of the convertible debt between the debt instrument and the derivative liability was calculated using a Monte Carlo simulation model (Monte Carlo). The expected time and probabilities of raising financing are significant assumptions in the valuation of the debentures. Other assumptions used in the valuation include volatility, credit spread and risk free interest rate. At subsequent reporting periods, the derivative liability is revalued and the change in fair value is recognized in other (income) expense on the consolidated statements of operations and comprehensive loss.

Judgment is required in determining whether deferred tax assets are recognized on the statement of financial position. Deferred tax assets, including those arising from unutilized tax losses, require management to assess the likelihood that the Company will generate future taxable income in future years in order to utilize any deferred tax asset which has been recognized. Estimates of future taxable income are based on forecasted cash flows. At the current statement of financial position date, no deferred tax assets have been recognized in these consolidated financial statements.

Outstanding Share Data

The authorized capital of the Company consists of an unlimited number of common shares and an unlimited number of preferred shares. No preferred shares have been issued to date. As of the date of this report, the Company had 431,731,591 common shares outstanding.

The change in the number of issued and outstanding common shares of the Company from January 1, 2021, to the date of this report is presented below:

	Number of Shares
Outstanding January 1, 2021	289,730,760
Issued, pursuant to conversion of special warrants	16,219,581
Issued, pursuant to public offering, August 2021	125,781,250

Outstanding, December 31, 2021 and March 16, 2022	431,731,591
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Warrants

The following table reflects the activity of the warrants for the year ended December 31 2021, and to the date of the Management's Discussion and Analysis:

	Number of Warrants
Outstanding, January 1, 2021	37,174,711
Issued, pursuant to conversion of special warrants	16,219,581
Issued pursuant to public offering, August 2021	31,445,309
Issued compensation warrants in conjunction with public offering	8,804,687
Outstanding, December 31, 2021 and March 16, 2022	93,644,288

Special Warrants

In November 2020, the Company closed on a special warrant financing. The Company issued 16,219,581 special warrant certificates and received gross proceeds of \$1,946,350 (\$1,636,590 net of issuance costs). Each special warrant will automatically be exercised into one common share and one warrant on the earlier of the date that is (i) the third business day after a receipt for a final prospectus qualifying the distribution of the shares and warrants issuable upon the conversion of the special warrants and (ii) four months and one day after the issue date of the special warrants.

In March 2021, the special warrants automatically converted into 16,219,581 common shares and 16,219,581 warrants.

The exercise prices and expiry dates of the outstanding warrants as at the date of this management report are as follows:

<u>Exercise Price</u>	<u>Number of warrants</u>	<u>Expiry date</u>
\$0.300	4,869,543	August 2022
\$0.285	1,265,010	August 2022
\$0.480	6,004,394	April 2023
\$0.480	8,379,500	January 2024
\$0.350	4,100,000	June 2024
\$0.350	9,049,066	November 2024
\$0.350	2,949,998	December 2024
\$0.200	16,776,781	November 2025
US\$0.210	31,445,309	August 2026
US\$0.160	8,804,687	August 2026
	<u>93,644,288</u>	

Stock Options

The Company maintains the 2007 Stock Option Plan (2007 Option Plan) for directors, officers, employees and consultants. In June 2015, the plan was changed from a fixed option plan to a rolling share option plan pursuant to which the Company is authorized to grant options of up to 20% of its issued

and outstanding common shares. Share options granted vest at various rates and have a term not exceeding 10 years.

The following table reflects the activity under the plan for the year ended December 31, 2021 and to the date of Management's Discussion and Analysis:

	Number of share options	Weighted average exercise price
Outstanding, January 1, 2021	38,771,748	\$0.13
Granted	1,500,000	0.17
Expiry of options	(697,917)	0.28
Outstanding, March 31, 2021	39,573,831	\$0.13
Granted	3,237,500	0.27
Expiry of options	(114,583)	0.16
Outstanding, June 30, 2021	42,696,748	\$0.14
Granted	4,100,000	0.19
Expiry of options	(5,437,500)	0.23
Outstanding, September 30 and November 11, 2021	41,359,248	\$0.14
Granted	3,000,000	0.15
Expiry of options	(77,000)	0.30
Outstanding as of December 31, 2021	44,282,248	\$0.14
Granted	7,250,000	0.14
Expiry of options	(712,000)	0.11
Outstanding as of March 16, 2022	50,820,248	\$0.14

Deferred Share Unit (DSU) Plan

As at December 31, 2021, and the date of this MD&A, there were 63,708 DSUs outstanding. No new DSUs were issued, and none were redeemed during the year ended December 31, 2021, or through the date of this report.

Shareholder Rights plan

In January 2016, the Company announced that it had adopted a shareholder rights plan (the Rights Plan). The Rights Plan is intended to ensure that, to the extent possible, the Corporation's Board and shareholders have adequate time to consider and evaluate any unsolicited takeover bid and to identify, solicit, develop and negotiate any value enhancing alternatives that would be considered appropriate. This will encourage fair treatment of the Corporation's shareholders in connection with any unsolicited takeover bid. The Rights Plan was not adopted in response to, or in anticipation of, any acquisition or take-over offer and is not intended to prevent a take-over of the Corporation, to secure continuance of current management or the directors in office or to deter fair offers for the common shares of the Corporation.

The Board authorized the issuance of one right in respect of each common share of the Corporation outstanding on January 22, 2016, and each share issued thereafter. The rights will become exercisable if a person, together with their affiliates, associates and joint actors, acquires or announces an intention to

acquire beneficial ownership of common shares which, when aggregated with its holdings, total 20% or more of the outstanding common shares of the Corporation (determined in the manner set out in the Rights Plan). Following the acquisition of 20% or more of the outstanding common shares, each right held by a person other than the acquiring person and its affiliates, associates and joint actors would, upon exercise, entitle the holder to purchase that number of common shares at a substantial discount to the market price of the common shares at that time.

The Rights Plan permits the acquisition of control of the Corporation through a "permitted bid", a "competing permitted bid" or a negotiated transaction. A permitted bid is one that, among other things, is made to all holders of common shares, is open for a minimum of 120 days and is subject to an irrevocable minimum tender condition of at least 50% of the common shares held by independent shareholders. The Board has the discretion to defer the time at which the rights become exercisable and to waive the application of the Rights Plan.

The Rights Plan was ratified by the Company's shareholders on June 30, 2016. It will continue in effect until the third annual meeting of shareholders thereafter.

The Company's shareholders, on June 27, 2019, ratified, confirmed and approved the continuation of the Rights Plan for a further three years until the close of the meeting of the shareholders of the Corporation in 2022.

Quarterly Selected Financial Information

The following table sets out selected financial information for the Company for the last eight quarters.

	December 31, 2021	September 30, 2021	June 30, 2021	March 31, 2021	December 31, 2020	September 30, 2020	June 30, 2020	March 31, 2020
Revenue	11,309	5,101	\$0	\$0	\$209	\$0	\$1,565	\$13
Net loss	(2,925,676)	(961,976)	(297,346)	(7,599,417)	(686,222)	(1,564,033)	(1,650,218)	(1,761,919)
Net loss per common share	\$0.00	(\$0.00)	\$0.00	(\$0.03)	\$0.00	(\$0.01)	(\$0.01)	(\$0.01)

Contractual Arrangements and Commitments

- a) The Company enters into research, development and licence agreements with various parties in the ordinary course of business where the Company receives research services and rights to proprietary technologies. The agreements require compensation to be paid by the Company, typically, by a combination of the following methods:
 - i) fees comprising amounts due initially on entering into the agreements and additional amounts due either on specified timelines or defined services to be provided;
 - ii) milestone payments that are dependent on products developed under the agreements proceeding toward specified plans of clinical trials and commercial development; and
 - iii) royalty payments calculated as a percentage of net sales, commencing on commercial sale of any product candidates developed from the technologies.

Milestone and royalty-related amounts that may become due under various agreements are dependent on, among other factors, preclinical safety and efficacy, clinical trials, regulatory

approvals and, ultimately, the successful development and commercial launch of a new drug, the outcomes and timings of which are uncertain. Amounts due per the various agreements for milestone payments will accrue once the occurrence of a milestone is likely. Amounts due as royalty payments will accrue as commercial revenues from the product are earned. During the year ended December 31, 2021, no events have occurred that may require accrual of any milestone or royalty related amounts.

- b) In February 2009, the Company entered into an agreement with the UBC to further the development of, and to commercialize certain technology developed in part by the Company's Chief Scientific Officer, Dr. Neil Cashman. Under the agreement, the Company is committed to make milestone payments up to \$1,400,000 per product developed using this technology based on the successful outcomes of predefined clinical and regulatory outcomes, and royalty payments based on revenue earned from the licensed technology. An annual license fee of \$25,000 per calendar year is payable for the term of the contract beginning in 2012. This agreement remains effective unless terminated under terms of the agreement.
- c) In April 2006 and through additional amendments up to November 2013, the Company entered into an agreement with the University Health Network, Toronto, to license certain technology and related intellectual property. Under the agreement the Company is committed to make milestone payments of up to \$635,000 based on the successful outcomes of predefined clinical and regulatory outcomes using this technology and royalty payments based on revenue earned from the licensed technology.
- d) In August 2020, the Company entered into an agreement with BC Neuroimmunology Lab Inc. (BCNI) on a 50/50 basis to develop diagnostics assays as a joint operation. The Company has agreed fund the equally the operating costs associated not to exceed \$25,000 per month with the Company's share being \$12,500 until the joint operation is sustainably cashflow positive. This agreement was terminated in December 2021.
- e) The Company indemnifies its directors against any and all claims and losses reasonably incurred in the performance of their service to the Company. The Company maintains liability insurance for its directors and officers.

Related Party Transactions

- a) Compensation for key management and Board personnel, mainly paid through consulting agreements, during the years ended December 31, were as follows:

	<u>2021</u>	<u>2020</u>
Salaries, fees and short-term benefits	\$1,015,245	\$1,532,222
Share-based compensation	546,889	151,712
	<u>\$1,562,134</u>	<u>\$1,683,934</u>

The amounts disclosed in the table above are the amounts recognized as an expense during the reporting period related to key management personnel. Key management personnel are the

Company's directors (Richard Gregory, Patrick Kirwin, Josh Mandel-Brehm, Madge Shafmaster, Neil Warma and William Wyman), executive chairman and chief executive officer (Eugene Williams), former chief executive officer (Elliot Goldstein), chief scientific officer (Neil Cashman), chief financial officer (Daniel Geffken) and chief operating officer (Gavin Malenfant).

- b) During the years ended December 31, 2021, and 2020, the Company paid \$410,126 and \$311,510, respectively, for consulting services to a firm specializing in finance and strategic support for life science companies. The chief financial officer of the Company, Daniel Geffken, is the founding managing director of the consulting firm.
- c) During the year ended December 31, 2016, the Company entered into a three-year, collaborative research agreement with the UBC and the Vancouver Coastal Health Authority in the amount of \$787,500 with Dr. Cashman as principal investigator. In March 2018, the CRA was amended and increased the funding to \$892,500 over three years. In July 2018, the total funding commitment to UBC increased to \$1,130,000 over the period of the agreement. In February 2019, the SRA was amended, and funding was increased to \$2,130,000 for an additional two-year period. In September 2019, the SRA was amended, and funding was increased to \$2,630,000 for an additional one-year period. In January 2022 the SRA was amended and funding was increased to \$800,000 per year for the next three years for a total contract funding of \$5,030,000. During the year ended December 31, 2021, the Company has recorded costs of \$500,000 (\$475,643 in 2020) related to this contract in research and development expenses.
- d) During the years ended December 31, 2021, and 2020, the Company paid \$525,694 and \$896,875, respectively, to a management services company operated by its chief executive officer, Elliot Goldstein, and executive chairman, Eugene Williams, for services rendered. The Company also reimbursed, at cost, the rental of an office the management services company leases in Cambridge, MA, that is used by the Company. During the years ended December 31, 2021, and 2020, the Company recorded \$1,315 and \$36,480, respectively, in general and administrative expenses in relation to this lease.

Risks and Uncertainties

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. Biotechnology research and development involves a significant degree of risk. An investor should carefully consider the risks and uncertainties described below, as well as other information contained in this Management's Discussion and Analysis. The risks and uncertainties described below is not an exhaustive list. Additional risks and uncertainties not presently known to the Company or that the Company believes to be immaterial may also adversely affect the Company's business. If any one or more of the following risks occur, the Company's business, financial condition and results of operations could be seriously harmed. Further, if the Company fails to meet the expectations of the public market in any given period, the market price of the Company's common shares could decline.

Early Stage Development and Scientific Uncertainty. All of the Company's potential products are at an early stage of development. Significant additional investment in research and development, product validation, technology transfer to manufacturing, production scale-up, manufacturing, clinical testing, and regulatory submissions of such product candidates is required prior to commercialization. There can be no assurance that any such products will actually be developed. A commitment of substantial time and resources is required to conduct research and clinical trials if the Company is to complete the development of any potential product. It is not known whether any of these product or process candidates will meet applicable health regulatory standards and obtain required regulatory approvals, or whether such products can be produced in commercial quantities at reasonable costs and be successfully marketed, or if the Company's investment in any such products will be recovered through sales or royalties.

Lack of Product Revenues and History of Losses. To date, the Company has not recorded any revenues from the sale of biopharmaceutical products. As at December 31, 2021, the Company had an accumulated deficit of \$83,032,359. The Company expects to incur additional losses during the periods of research and development, clinical testing, and application for regulatory approval of its product candidates. The Company expects to incur losses unless and until such time as payments from corporate collaborations, product sales and/or royalty payments generate sufficient revenues to fund its continuing operations.

Additional Financing Requirements and Access to Capital. The Company will require substantial additional funds for further research and development, planned clinical testing, regulatory approvals, establishment of manufacturing capabilities and, if necessary, the marketing and sale of its products. The Company may attempt to raise additional funds for these purposes through public or private equity or debt financing, collaborations with other biopharmaceutical companies and/or from other sources. There can be no assurance that additional funding or partnerships will be available on terms acceptable to the Company and which would foster successful commercialization of the Company's products.

Patents and Proprietary Technology. The Company's success will depend in part on its ability to obtain, maintain, and enforce patent rights, maintain trade secret protection and operate without infringing the proprietary rights of third parties. There can be no assurance that pending patent applications will be allowed, that the Company will develop additional proprietary products that are patentable, that issued patents will provide the Company with any competitive advantage or will not be challenged by any third parties, or that patents of others will not have an adverse effect on the ability of the Company to do business. Furthermore, there can be no assurance that others will not independently develop similar products, duplicate any of the Company's products, or design around the products patented by the Company. In addition, the Company may be required to obtain licenses under patents or other proprietary rights of third parties. No assurance can be given that any licenses required under such patents or proprietary rights will be available on terms acceptable to the Company. If the Company does not obtain such licenses it could encounter delays in introducing one or more of its products to the market, while it attempts to design around such patents, or could find that the development, manufacturing or sale of products requiring such licenses could be foreclosed. In addition, the Company could incur substantial costs in defending itself in suits brought against it on such patents or in suits where it attempts to enforce its own patents against other parties.

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

Dependence on Collaborative Partners, Licensors and Others. The Company's activities will require it to enter into various arrangements with corporate and academic collaborators, licensors, licensees and others for the research, development, clinical testing, manufacturing, marketing and commercialization of its products. The Company intends to attract corporate partners and enter into additional research collaborations. There can be no assurance, however, that the Company will be able to establish such additional collaborations on favorable terms, if at all, or that its current or future collaborations will be successful. Failure to attract commercial partners for its products may result in the Company incurring substantial clinical testing, manufacturing and commercialization costs prior to realizing any revenue from product sales or result in delays or program discontinuance if funds are not available in sufficient quantities.

Should any collaborative partner fail to develop, manufacture, or commercialize successfully any product to which it has rights, or any partner's product to which the Company will have rights, the Company's business may be adversely affected. Failure of a collaborative partner to continue to participate in any particular program could delay or halt the development or commercialization of products generated from such a program. In addition, there can be no assurance that the collaborative partners will not pursue other technologies or develop alternative products either alone or in collaboration with others, including the Company's competitors, as a means for developing treatments for the diseases targeted by the Company's programs.

Furthermore, the Company will hold licenses for certain technologies and there can be no assurance that these licenses will not be terminated, or that they will be renewed on conditions acceptable to the Company. The Company intends to negotiate additional licenses in respect of technologies developed by other companies and academic institutions. Terms of license agreements to be negotiated may include, inter alia, a requirement to make milestone payments, which may be substantial. The Company will also be obligated to make royalty payments on the sales, if any, of products resulting from licensed technology and, in some instances, may be responsible for the costs of filing and prosecuting patent applications.

Government Regulations. Biotechnology and pharmaceutical companies operate in a high-risk regulatory environment. The manufacture and sale of animal and human diagnostic and therapeutic products is governed by numerous statutes and regulations in the United States, Canada and other countries where the Company intends to market its product candidates, if approved. Such regulation includes inspection of manufacturing facilities, controlled research and testing procedures, review and approval of manufacturing, preclinical and clinical data prior to marketing approval, as well as regulation of marketing activities, notably advertising and labelling, if approval is obtained.

The process of completing clinical testing and obtaining required approvals is likely to take many years and require the expenditure of substantial resources. Furthermore, there can be no assurance that the regulators will not require modification to any submissions which may result in delays or failure to obtain regulatory approvals. Any delay or failure to obtain regulatory approvals could adversely affect the ability of the Company to utilize its technology, thereby adversely affecting operations. Further, there can be no assurance that the Company's diagnostic product candidates will achieve levels of sensitivity and specificity sufficient for regulatory approval or market acceptance, or that its therapeutic product candidates prove to be safe and effective in clinical trials or receive the requisite regulatory approval. There is no assurance that the Company will be able to timely and profitably produce its product candidates, if approved, while complying with all the applicable regulatory requirements. Foreign markets, other than the United States and Canada, impose similar restrictions.

Hazardous Materials and Environmental Matters. Certain of the Company's research and development processes will involve the controlled use of hazardous materials. The Company is subject to federal, provincial and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although management of the Company believes that its procedures for handling and disposing of such materials comply with the standards prescribed, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable for damages and such liability could exceed the resources of the Company. The Company is not specifically insured with respect to this liability. Although management of the Company believes that they currently comply in all material respects with applicable environmental laws and regulations, the Company may be required to incur significant costs to comply with environmental laws and regulations in the future. Furthermore, there can be no assurance that the operations, business or assets of the Company will not be materially adversely affected by current or future environmental laws or regulations.

Rapid Technological Change. The biotechnology and pharmaceutical industries are characterized by rapid and substantial technological change. There can be no assurance that developments by others will not render the Company's product candidates, if approved or technologies non-competitive, or that the Company will keep pace with technological developments. Competitors have developed or are developing technologies that could be the basis for competitive products. Some of these products have an entirely different approach or means of accomplishing the desired diagnostic or therapeutic effect as compared with product candidates to be developed by the Company and could be more effective and less costly than the product candidates to be developed by the Company. In addition, alternative forms of medical treatment may be competitive with the Company's product candidates, if approved.

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

Reliance on Key Personnel. The Company is dependent on certain members of its management and scientific staff, the loss of services of one or more of whom could adversely affect the Company. In addition, the Company's ability to manage growth effectively will require it to continue to implement and improve its management systems and to recruit and train new employees. There can be no assurance that the Company will be able to successfully attract and retain skilled and experienced personnel.

Status of Healthcare Reimbursement. the Company's ability to successfully market certain diagnostic or therapeutic product candidates may depend in part on the extent to which reimbursement for the cost of such product candidates, if approved and related treatments will be available from government health administration authorities, private health insurers and other organizations. Significant uncertainty exists as to whether newly approved healthcare products will qualify for reimbursement. Furthermore, challenges to the price of medical products and services are becoming more frequent. There can be no assurance that adequate third-party coverage will be available to establish price levels, which would allow the Company to realize an acceptable return on its investment in product development.

Potential Product Liability. Pharmaceutical products involve an inherent risk of product liability claims and associated adverse publicity. Product liability insurance is costly, availability is limited and may not be available on terms which would be acceptable to the Company, if at all. An inability to maintain sufficient insurance coverage on reasonable terms or to otherwise protect against potential product liability claims could prevent or inhibit the commercialization of the Company's potential products. A product liability claim brought against the Company, or withdrawal of a product from the market, could have a material adverse effect upon the Company and its financial condition.

Volatility of Share Price, Absence of Dividends and Fluctuation of Operating Results. Market prices for the securities of biotechnology companies, including the Company, have historically been highly volatile. Factors such as fluctuation of the Company's operating results, announcements of technological innovations, patents or new commercial products by the Company or competitors, results of clinical testing, regulatory actions, or public concern over the safety of biopharmaceutical products and other factors could have a significant effect on the share price or trading volumes for the common shares. The Company's common shares have been subject to significant price and volume fluctuations and may continue to be subject to significant price and volume fluctuations in the future. The Company has not paid dividends to date and does not expect to pay dividends in the foreseeable future.

Disclosure Controls and Procedures

The Chief Executive Officer and the Chief Financial Officer evaluated the effectiveness of the Company's disclosure controls and procedures as at December 31, 2021. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective as at December 31, 2021 to provide reasonable assurance that material information relating to the Company would be made known to them by others within the Company.

Internal Control over Financial Reporting

As at December 31, 2021, the Chief Executive Officer and Chief Financial Officer evaluated the design of the Company's internal control over financial reporting. Based on that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the design and operation of internal control over financial reporting was effective as at December 31, 2021 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. No material weaknesses in internal controls over financial reporting were identified. There were no changes in the Company's internal control over financial reporting that occurred during the most recent interim period that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Additional Information

Additional information relating to the Company, including its Annual Information Form, can also be found on SEDAR at www.sedar.com.