Liminal BioSciences

Annual Report 2021

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Liminal BioSciences Reports Fourth Quarter and Year End 2021 Financial Results

- **Planned Phase 1a Single Ascending Dose ("SAD") clinical trial, commencing in Q2 2022, to compare fezagepras with sodium phenylbutyrate as a nitrogen scavenger**
- **Repayment in full of the $39.1M secured loan and release of security on the Company's assets**
- **Completion of the Phase 1 Multi-Ascending Dose ("MAD") clinical trial of fezagepras**
- **Closing of the sale of the plasma-derived therapeutics business and sale of a Rare Pediatric Disease Priority Review Voucher**

LAVAL, CANADA, and CAMBRIDGE, ENGLAND – March 17, 2022 – Liminal BioSciences Inc. (Nasdaq: LMNL) ("Liminal BioSciences" or the "Company"), today reported its financial results for the fourth quarter and year ended December 31, 2021.

"The leadership team and I are pleased to have successfully delivered on our objective of simplifying our business structure over the past 12 months as part of our evolution in becoming a streamlined small molecules business," stated Bruce Pritchard, Chief Executive Officer of Liminal BioSciences. "Today, Liminal BioSciences is a streamlined and debt-free Company, we believe that our pipeline is positioned to deliver multiple anticipated value inflection points throughout 2022 with unencumbered intellectual property and a data-driven clinical development plan. We are also pleased to announce the appointment of Nicole Rusaw, as our Interim Chief Financial Officer effective as of March 2, 2022. Nicole brings with her over 20 years of financial management experience in the biotech and pharmaceutical industry, and 17 years of experience in publicly traded companies. Nicole's skills and experience complement those of the existing team and will add additional management bandwidth to allow us to continue delivering on our business objectives." Mr. Pritchard added, "We believe we have a solid foundation for growth and our full attention is on delivering on our upcoming clinical trial for our lead candidate fezagepras, as well as progressing toward the selection of our lead GPR84 antagonist and OXER1 antagonist preclinical product candidates."

Key Corporate and R&D Priorities

- The Company has completed its Phase 1 MAD clinical trial, and analysis of the metabolite data provided evidence to support the hypothesis that fezagepras has nitrogen scavenging properties. The Company intends on initiating further research, including a Phase 1a single ascending dose ("SAD") clinical trial in healthy volunteers, to assess the relative effectiveness of fezagepras as a nitrogen scavenger in a head-to-head comparison with sodium phenylbutyrate, an established nitrogen scavenging drug, to obtain comparative data for the further development of fezagepras. The Company plans to initiate the Phase 1a, randomized, open label, cross over, clinical trial which will aim to evaluate the safety, tolerability, and pharmacokinetics of SAD of fezagepras compared to sodium phenylbutyrate in healthy subjects in the second quarter of 2022, subject to the receipt of required approvals.
- The Company continues to work on selecting a lead drug candidate for its GPR84 antagonist program to progress to the clinic from among the Company's current lead compounds, with plans to finalize lead product candidate selection in 2022.
- Similarly, the Company expects to be able to finalize lead candidate selection in 2023 for its OXER-1 program to progress to the clinic.
- During 2022, the Company will continue to review its balance sheet position and actively seek opportunities to monetize non-core assets as well as seeking ways to reduce costs relating to financial instruments and certain commitments associated with the previous operations of the organization.

Fourth Quarter and Full Year 2021 Financial Results

The Company has presented the current and comparative period results of its former plasma-derived therapeutics segment as discontinued operations as a result of its divestment of this business. All figures presented in this section are in Canadian dollars unless otherwise specified.

- **Cash** was $108.5 million at December 31, 2021 while the Company's working capital, i.e., the current assets net of current liabilities, was $96.1 million at December 31, 2021. Subsequent to year end, the Company repaid its secured loan for an aggregate amount of $39.1 million, thereby terminating the consolidated loan agreement with Structure Alpha LP ("SALP"), releasing the security granted in favor of SALP over the Company's assets, including intellectual property; cancelling the warrants issued pursuant to the consolidated

loan agreement and terminating the royalty stream agreement entered into between the Company and SALP.

- **Revenues from continuing operations** were $643K for the year ended December 31, 2021, compared to $724K for the year ended December 31, 2020.
- **Research and development ("R&D") expenses** from continuing operations were $4.5 million for the fourth quarter of 2021 compared to $3.0 million for the fourth quarter of 2020, and $18.3 million for the year ended December 31, 2021, compared to $14.2 million for the year ended December 31, 2020. The increase in R&D expenses is mainly due to increases in intangible amortization expenses, as well as a decrease in government grants, in addition to increases in clinical and preclinical expenses, and consulting fees on a year-over-year basis. These increases were partially offset by a decrease in share-based compensation expenses year-over-year.
- **Administration expenses** from continuing operations were $5.8 million for the fourth quarter of 2021 compared to $7.5 million for the fourth quarter of 2020, and $31.9 million for the year ended December 31, 2021, compared to $32.6 million for the year ended December 31, 2020. The decrease in administration expenses is primarily due to reduced directors' and officers' insurance premiums resulting from the change in the Company's registered office from Quebec to Ontario, as well as the fact that the comparative period expense contained a one-time charge of approximately $2.2 million relating to additional warrants issued pursuant to an amended Securities Purchase Agreement dated November 2020 with no equivalent cost in 2021. The decrease in administration expenses during fiscal 2021 was partially offset by increases in share-based payment expenses as well as reduction in government grants.
- **Finance costs** were $1.6 million for both the fourth quarter of 2021 and 2020, and were $6.3 million for the year ended December 31, 2021, compared to $2.9 million for the year ended December 31, 2020. The $3.4 million increase in finance costs year over year reflects the increase in our level of indebtedness following the issuance of the secured convertible debentures ("SCD") in July 2020, which remained outstanding until the SCD were converted into our common shares in October 2021, and the issuance of additional long-term debt to SALP in September 2020.
- **Net loss from continuing operations, net of taxes** was $8.8 million for the fourth quarter of 2021 compared to $12.6 million for the fourth quarter of 2020, and $45.1 million for the year ended December 31, 2021, compared to $49.0 million for the year ended December 31, 2020. The decrease in loss was mainly due to the reduction in administration expenses and the increase in the gain on the change in fair value of the warrant liability.

The decrease in net loss from continuing operations, net of taxes, was partially offset by the previously discussed increase in research and development expenses and a decrease in impairment losses.

- **Gain/loss on sale of subsidiaries** was a loss of $0.1 million for the fourth quarter of 2021 compared to a gain of $3.4 million in the fourth quarter of 2020, and a gain of $140.4 million for the year ended December 31, 2021 compared to a gain of $3.4 million for the year ended December 31, 2020. The gain on sale of subsidiaries during fiscal year 2021 is a result of the sale of the Pediatric Disease Priority Review Voucher ("PRV") for gross proceeds of $132.9 million (USD 105 million) and the proceeds received on the sale of our subsidiary Prometic Bioproduction Inc. ("PBP") in July 2021 as well as those received from the sale of our Prometic Biotherapeutics Inc. ("PBT") subsidiary in October 2021. During the fourth quarter of fiscal 2020, the Company finalized the post-closing conditions of the Prometic Bioseparations Ltd. ("PBL") sale, resulting in a gain of $3.4 million in the comparative period.
- **Net Loss from discontinued operations** was a loss of $0.4 million for the fourth quarter of 2021 compared to a loss of $30.8 million in the fourth quarter of 2020, a decrease of $30.3 million. This decrease was mainly due to the recognition of an impairment of $19.7 million during the fourth quarter of 2020 and since there were only minor expenses incurred in the fourth quarter of 2021 until PBT was sold on October 15, 2021 compared to having the full operations of the plasma-derived therapeutics segment in the comparative period. The net loss from discontinued operations was $83.1 million for the year ended December 31, 2021, compared to a loss of $73.1 million for the year ended December 31, 2020. The increase in net loss was due to payments made by PBT to PBP, when PBP was under the ownership of Kedrion S.p.A., of $45.8 million for R&D services and the recording of an onerous contract of $21.9 million as a result of the divestiture of the plasma-derived therapeutic segment. This increase was partially offset by a reduction in impairment losses and since the discontinued operations results include the results for PBP and PBT until the date of their sale.
- **Net income/loss** was a loss of $9.3 million for the fourth quarter of 2021 compared to a loss of $40.0 million for the fourth quarter of 2020, and net income of $12.2 million for the year ended December 31, 2021 compared to a net loss of $118.8 million for the year ended December 31, 2020, the decrease in net loss driven by the discontinued operations.

Liminal will host a conference call at 8:30 am (ET) on Friday March 18, 2022. The telephone numbers to access the conference call are 1-888-390-0605 and 416-764-8609. An audio replay of the call will be available as of Friday March 18, 2022 at 11:30 am (ET). The numbers to access the audio replay are 416-764-8677 and 1-888-390-0541 using the following password (876829 #). A live audio webcast of the conference call will be available by clicking here.

About Liminal BioSciences Inc.

Liminal BioSciences is a clinical stage biopharmaceutical company focused on developing distinctive novel small molecule therapeutics for inflammatory, fibrotic, and metabolic diseases using our drug discovery platform and a data driven approach. The Company's lead small molecule product candidate, fezagepras, has completed a Phase 1 MAD clinical trial and the Company anticipates conducting a comparative Phase 1a single ascending dose clinical trial to provide comparative data to support its development plan. In addition, the Company is also currently developing a selective GPR84 antagonist candidate and a selective OXER1 antagonist candidate. Our GPR84 and OXER1 antagonist programs are currently at the preclinical stage.

Liminal BioSciences has active business operations in Canada and the United Kingdom.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Some of the forward-looking statements can be identified by the use of forward-looking words. Statements that are not historical in nature, including the words "anticipate," "expect," "suggest," "plan," "believe," "intend," "estimate," "target," "project," "should," "could," "would," "may," "will," "forecast" and other similar expressions are intended to identify forward-looking statements. These statements include those related to Liminal BioSciences' objectives, strategies and businesses that involve risks and uncertainties. Forward-looking information includes statements concerning, among other things: advancement of Liminal Biosciences' product candidates, the outcome of anticipated clinical trials; the analysis of our clinical trial data; the potential development of Liminal Biosciences' R&D programs; the properties of our drug candidates; the timing of initiation or nature of preclinical and clinical trials and potential therapeutics areas; our ability to actively seek and close on opportunities to monetize non-core

assets and reduce costs relating to contracts associated with the previous operations of the organization.

These statements are "forward-looking" because they are based on our current expectations about the markets we operate in and on various estimates and assumptions. Actual events or results may differ materially from those anticipated in these forward-looking statements if known or unknown risks affect our business, or if our estimates or assumptions turn out to be inaccurate. Among the factors that could cause actual results to differ materially from those described or projected herein include, but are not limited to, risks associated with: the Company's ability to develop, manufacture, and successfully commercialize product candidates, if ever; the impact of the COVID-19 pandemic on the Company's workforce, business operations, clinical development, regulatory activities and financial and other corporate impacts; the availability of funds and resources to pursue R&D projects, clinical development, manufacturing operations or commercialization activities; the successful and timely initiation or completion of clinical trials; the ability to take advantage of financing opportunities or business opportunities in the pharmaceutical industry; the Company's ability to resolve the Nasdaq listing deficiency and regain compliance with the Nasdaq Listing Rules; uncertainties associated generally with research and development, clinical trials and related regulatory reviews and approvals; and general changes in economic conditions. You will find a more detailed assessment of these risks, uncertainties and other risks that could cause actual events or results to materially differ from our current expectations in the filings and reports the Company makes with the U.S. Securities and Exchange Commission and Canadian Securities Administrators, including in the Annual Report on Form 20-F for the year ended December 31, 2021, as well as other filings and reports Liminal Biosciences' may make from time to time. Such risks may be amplified by the ongoing COVID-19 pandemic and any related impacts on Liminal BioSciences' business and the global economy. As a result, we cannot guarantee that any given forward-looking statement will materialize. Existing and prospective investors are cautioned not to place undue reliance on these forward-looking statements and estimates, which speak only as of the date hereof. We assume no obligation to update any forward-looking statement contained in

this press release even if new information becomes available, as a result of future events or for any other reason, unless required by applicable securities laws and regulations.

For further information please contact:

Corporate Contact

Shrinal Inamdar

Manager, Investor Relations and Communications

s.inamdar@liminalbiosciences.com

+1 450.781.0115

Media Contact

Kaitlin Gallagher

kgallagher@berrypr.com

+1 212.253.8881

This Management's Discussion and Analysis, or MD&A, is intended to help the reader to better understand Liminal BioSciences Inc.'s or Liminal or the Company operations, financial performance and results of operations, as well as the present and future business environment. This MD&A has been prepared as of March 17, 2022 and should be read in conjunction with Liminal's consolidated financial statements for the year ended December 31, 2021, which are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, or IFRS. Our financial information is presented in Canadian Dollars and all reference to "$" means Canadian Dollars. Additional information related to the Company, including the Company's Annual report on Form 20-F, is available on SEDAR at www.sedar.com and EDGAR at www.sec.gov/edgar.

FORWARD-LOOKING STATEMENTS

This MD&A contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that are based on our management's beliefs and assumptions and on information currently available to our management. These statements are "forward-looking" because they represent our expectations, intentions, plans and beliefs about our business and the markets we operate in and on various estimates and assumptions based on information available to our management at the time these statements are made. For example, forward-looking statements around financial performance and revenues are based on financial modelling undertaken by our management. This financial modelling takes into account revenues that are uncertain. It also includes forward-looking revenues from transactions based on probability. In assessing probability, management considers the status of negotiations for any revenue generating transactions, and the likelihood, based on the probability of income, that associated costs will be incurred. Management then ranks the probabilities in such a way that only those revenues deemed highly or reasonably likely to be secured are included in the projections.

All statements other than statements of historical facts may be forward-looking statements. Without limiting the generality of the foregoing, words such as "may", "will", "expect", "believe", "anticipate", "intend", "could", "might", "would", "should", "estimate", "continue", "plan" or "pursue", "seek", "project", "predict", "potential" or "targeting" or the negative of these terms, other variations thereof, comparable terminology or similar expressions, are intended to identify forward-looking statements although not all forward-looking statements contains these terms and phrases.

Forward-looking statements are provided for the purposes of assisting you in understanding us and our business, operations, prospects and risks at a point in time in the context of historical and possible future developments and therefore you are cautioned that such information may not be appropriate for other purposes. Actual events or results may differ materially from those anticipated in these forward-looking statements if known or unknown risks affect our business, or if estimates or assumptions turn out to be inaccurate. In particular, forward-looking statements included in this Annual Report include, without limitation, statements with respect to:

- our ability to develop, manufacture and successfully commercialize value-added pharmaceutical products;
- our ability to obtain required regulatory approvals;
- the availability of funds and resources to pursue research and development projects;
- the successful and timely completion of our clinical trials;
- our ability to take advantage of business opportunities in the pharmaceutical industry;
- potential strategic transactions that we may pursue, including a potential divestment or sale of non-core assets;
- our reliance on key personnel, collaborative partners and other third parties;

- the validity and enforceability of our patents and proprietary technology;
- expectations regarding our ability to raise capital;
- the use of certain hazardous materials;
- the availability and sources of raw materials;
- our third-party manufacturing capabilities;
- currency fluctuations;
- the value of our intangible assets;
- negative operating cash flow;
- the outcome of any current or pending litigation against us;
- uncertainties related to the regulatory process and approvals;
- increasing data security costs;
- costs related to environmental safety regulations;
- competing drugs, as well as from current and future competitors;
- developing products for the indications we are targeting;
- market acceptance of our product candidates by patients and healthcare professionals;
- availability of third-party coverage and adequate reimbursement;
- general changes in economic or market conditions;
- the impact of the ongoing COVID-19 pandemic and other geopolitical tensions, such as Russia's recent incursion into Ukraine, on our business, our industry and the economy;
- volatility of our share price; and
- other risks and uncertainties, including those listed in the Annual Report titled "Item 3.D—Risk Factors."

You should refer to the section of the Annual Report titled "Item 3.D—Risk Factors" for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this MD&A will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

You should read this MD&A and the documents that we reference in this MD&A completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

This MD&A contains market data and industry forecasts that were obtained from industry publications. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. We have not independently verified any third-party information. While we believe the market position, market opportunity and market size information included in this MD&A is generally reliable, such information is inherently imprecise.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this MD&A, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Business Overview

We are a clinical-stage biopharmaceutical company focused on developing distinctive novel small molecule therapeutics for inflammatory, fibrotic and metabolic diseases using our drug discovery platform and data driven approach. Our lead small molecule product candidate, fezagepras, has completed a Phase 1 multi-ascending dose clinical trial and we anticipate conducting a comparative Phase 1a single ascending dose clinical trial to provide comparative data to support our development plan. In addition, we are currently developing a selective G-protein-coupled receptor 84, or GPR84 antagonist candidate and a selective OXER1 antagonist candidate. Our GPR84 and OXER1 antagonist programs are currently at the preclinical stage.

We have active business operations in Canada and the United Kingdom.

We previously operated a segment devoted to the development of plasma derived therapeutics and completed this divestment of this segment in October 2021. In November 2019, we also sold entities that were part of our former bioseparations segment. The revenues and expenses relating to these activities are presented as discontinued operations in our audited annual consolidated financial statements for the years ended December 31, 2021 and 2020.

Financial Performance

Amounts in tables are expressed in thousands of CAD, except per share amounts which are in full Canadian dollars.

On July 5, 2019, we performed a 1000 to 1 share consolidation of our issued equity instruments including common shares, warrants, options and restricted stock units, or RSU. The quantities and per unit prices presented in the MD&A have been retroactively adjusted to give effect to the share consolidation.On November 25, 2019, we completed a disposition of all our shares in Prometic Bioseparations Ltd. or PBL to Gamma Biosciences GP LLC, a subsidiary of KKR & Co. As a result of this transaction, we no longer retain any interest in PBL and its subsidiary Prometic Manufacturing Inc. or PMI.

The Company entered into two share purchase agreements, or SPAs, with Kedrion S.p.A., or Kedrion, during the quarter ended June 30, 2021: the first for the sale of Prometic Plasma Resources Inc. (PPR) and Prometic Plasma Resources USA Inc. (PPR USA), operating the plasma collection centers, which dispositions were completed on May 21, 2021, and the second for the sale of its Ryplazim® business operated through its subsidiaries Prometic Bioproduction Inc. (PBP), which was disposed on July 9, 2021, and the Company's plasma-derived therapeutics manufacturing facility, Prometic Biotherapeutics Inc. (PBT), the holder of the biologicals license application or BLA and intellectual property rights for Ryplazim® which was disposed on October 15, 2021.· Additionally, the Company's subsidiary PBT entered into an agreement with another party for the sale of the Priority Review Voucher, or PRV, it received on June 4, 2021, in conjunction with FDA approval of its BLA. This sale closed on September 28, 2021. These disposals cover the majority of Liminal's plasma-derived therapeutics segment.

We have ceased to consolidate these entities in our consolidated financial statements as of the date of the disposal. Our interest in PBL and PMI has been presented separately as "Discontinued Operations" in the comparative results, while our interest in PPR, PPR USA, PBP and PBT have been presented as discontinued operations in the current and

comparative results in accordance with the guidance under IFRS 5, *Non-Current Asset Held for Sale and Discontinued Operations.*

Financial operations overview

Revenues

Revenues include royalty revenues and rental revenues.

Research and development expenses

Research and development or R&D expenses comprise the costs to have a contract development and manufacturing organization manufacture the drug product used in pre-clinical studies and clinical trials. It also includes the cost of external consultants supporting the clinical trials and pre-clinical studies, employee compensation and other operating expenses involved in research and development activities. Government grant credits for eligible R&D salaries and rent in Canada reduce the R&D expenses.

Administration expenses

Administration expenses mainly consist of salaries and benefits related to our executive, finance, human resources, business development, legal, intellectual property, and information technology support functions. Professional fees reported under administrative expenses mainly include legal fees, accounting fees, audit fees and fees for taxation advisory. It also includes operating expenses such as insurance costs, office expenses, and travel costs pertaining to administration. Government grant credits for eligible administrative salaries and rent in Canada are also included in administration expenses.

Gain on foreign exchange

Gain on foreign exchange includes the effects of foreign exchange variations on monetary assets and liabilities denominated in foreign currencies between the rates at which they were initially recorded at in the functional currency at the date of the transaction and when they are retranslated at the functional currency spot rate of exchange at the reporting date. All differences are included in the consolidated statement of operations.

Finance costs

Finance costs mainly includes interest expense from long-term debt, lease liabilities and banking charges. Finance costs also includes financing transaction cost associated with financial instruments carried at fair value through profit or loss. Finance costs are presented net of interest income which primarily results from the interest earned on the cash we hold.

Loss (gain) on extinguishments of liabilities

When the terms of our long-term debt are modified significantly, the then existing debt is considered extinguished and the carrying amount of the debt before modification is derecognized, and the fair value of the modified debt is recognized. The difference is recorded as a loss (gain) on extinguishment of liabilities. Similarly, when a debt agreement is terminated resulting in a cash payment, the difference between the carried amount of the debt and the amount paid is recorded as a loss (gain) on extinguishment of liabilities.

Change in fair value of financial instruments measured at fair value through profit or loss

Fair value increases and decreases on financial instruments measured at fair value through profit or loss are presented here. Over the last two years, this caption includes the changes in fair values of the warrant liability.

Impairment losses

Impairment losses includes impairments recorded on long-lived assets, including but not limited to capital assets, right-of-use assets and intangible assets.

Income tax expense

Income tax expense includes the current tax expense that will be payable to or collectable from the taxation authorities in the various jurisdiction in which we operate. Income tax expense also includes deferred income tax expense and recoveries. Deferred income tax assets are recognized to the extent that it is probable that future tax profits will allow the deferred tax assets to be recovered.

Discontinued operations

Following the sale of two of our subsidiaries previously included in our bioseparations segment on November 25, 2019, and following a series of transactions in 2021 resulting in the divestment of four subsidiaries which were formerly part of the plasma-derived therapeutics segment, we have restated the prior periods to remove the impact of those operations from all lines in the financial statements (revenues, cost of sales and production cost, R&D and administration, selling and marketing being the lines most impacted) and have reclassified those results to the income (loss) from discontinued operations lines in the consolidated financial statements. The amounts showing as loss from discontinued operations do not equal the results reported in prior periods for the bioseparations nor the plasma-derived segment since the ownership of one subsidiary that was part of this bioseparations segment was not sold and since certain corporate expenses that were previously allocated to these two segments were not reclassified in the results of discontinued operations if those cost remained going forward. The gain on the sale of the subsidiaries is presented distinctly.

Operating Results

Comparison of years ended December 31, 2021, 2020 and 2019

The consolidated statements of operations for the year ended December 31, 2021 compared to the corresponding periods in 2020 and 2019 are presented in the following tables:

	Year ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Revenues	$ 643	$ 724	$ 745	$ (81)	$ (21)
Expenses					
Research and development expenses	18,347	14,234	15,873	4,113	(1,639)
Administration expenses	31,928	32,619	37,661	(691)	(5,042)
Gain on foreign exchange	(1,397)	(35)	(756)	(1,362)	721
Finance costs	6,330	2,899	6,867	3,431	(3,968)
Loss (gain) on extinguishments of liabilities	(75)	—	92,374	(75)	(92,374)
Change in fair value of financial instruments measured at fair value through profit or loss	(9,886)	(850)	(1,140)	(9,036)	290
Impairment losses	341	1,087	763	(746)	324
Net loss from continuing operations before income taxes	$ (44,945)	$ (49,230)	$ (150,897)	$ 4,285	$ 101,667
Income tax expense (recovery) from continuing operations:					
Current	—	(144)	(336)	144	192
Deferred	118	(65)	111	183	(176)
	118	(209)	(225)	327	16
Net loss from continuing operations	$ (45,063)	$ (49,021)	$ (150,672)	$ 3,958	$ 101,651
Discontinued operations					
Gain on sale of subsidiaries, net of income taxes $nil	140,403	3,380	26,346	137,023	(22,966)
Net loss from discontinued operations, net of taxes	(83,127)	(73,116)	(82,427)	(10,011)	9,311
Total income (loss) from discontinued operations	$ 57,276	$ (69,736)	$ (56,081)	$ 127,012	$ (13,655)
Net income (loss)	$ 12,213	$ (118,757)	$ (206,753)	$ 130,970	$ 87,996
Net loss (income) attributable to:					
Non-controlling interests - continuing operations	(669)	(832)	(1,044)	163	212
Owners of the parent					
- Continuing operations	(44,394)	(48,189)	(149,628)	3,795	101,439
- Discontinued operations	57,276	(69,736)	(56,081)	127,012	(13,655)
	12,882	(117,925)	(205,709)	130,807	87,784
Net income (loss)	$ 12,213	$ (118,757)	$ (206,753)	$ 130,970	$ 87,996
Income (Loss) per share attributable to the owners of the parent basic and diluted:					
From continuing operations	$ (1.47)	$ (1.97)	$ (9.32)	$ 0.50	$ 7.34
From discontinued operations	1.90	(2.85)	(3.49)	4.75	0.64
Total income (loss) per share	$ 0.43	$ (4.83)	$ (12.81)	$ 5.25	$ 7.98
Weighted average number of outstanding shares (in thousands)	30,164	24,438	16,062	5,726	8,376

Continuing Operations analysis

Revenues

The following table provides the breakdown of total revenues from continuing operations by source of revenue for the year ended December 31, 2021 compared to the corresponding periods in 2020 and 2019:

	Year ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Royalty revenues	$ 565	$ 572	$ 575	$ (7)	$ (3)
Rental revenue	78	152	170	(74)	(18)
	$ 643	$ 724	$ 745	$ (81)	$ (21)

Revenues include nominal amounts of royalty and rental revenues which remained fairly consistent over the years ended December 31, 2021, 2020 and 2019. Royalty revenues are dependent on sales made by a third party.

Research and development expenses

R&D expenses increased by $4.1 million during the year ended December 31, 2021 compared to the corresponding period in 2020. The increase was mainly due to an increase in third party clinical trial expenses of $2.4 million, mostly related to our fezagepras MAD Phase 1 clinical trial, an increase in third-party preclinical studies expenses of $0.8 million, as well as increases in consulting fees of $0.6 million and intangible amortization expense of $1.1 million. Additionally, during the year ended December 31, 2021, following the sale of our plasma-derived therapeutic business, we ceased to be eligible to the Canada Emergency Wage Subsidy program, or CEWS government grant, and the Canada Emergency Rent Subsidy program, or CERS government grant, two grant programs created in 2020 by the Canadian government in response to the COVID-19 pandemic. As a result, we recorded a reduction in grant credits of $0.6 million. These increases in R&D expenses were partially offset by a decrease in share-based compensation expense of $1.5 million explained below under Share-based payments expense.

R&D expenses decreased by $1.6 million for the year ended December 31, 2020 compared to the corresponding period in 2019. This change was mainly driven by a decrease in compensation expense of $4.7 million due to a reduction in our workforce dedicated to our small molecule R&D, a decrease in third-party clinical trial expenses of $1.0 million, the recognition of government grant credits of $1.2 million coming from the CEWS and CERS government grants programs which started in 2020, and a reduction of $0.4 million in share-based payments expense.

These decreases were offset by an increase in third-party preclinical expenses of $2.1 million and an increase of $0.9 million in laboratory consumables expense. There were also reductions in Québec R&D tax credits during the year ended December 31, 2020, which resulted in an increased R&D expense of $1.1 million, and an increase of $1.7 million for consultant services as we relied more on consultants to perform some of the tasks previously performed by employees.

Administration expenses

The decrease of $0.7 million in administration expenses during the year ended December 31, 2021 compared to the corresponding period in 2020 was attributable in part to a reduction in professional fees of $1.7 million and a reduction of $0.4 million in office expenses. The decrease is also due to the fact that in 2020 there was a $2.2 million expense recognized in conjunction with the additional warrants issued following an amendment to the private placement agreement completed in November of that year with no equivalent cost in 2021. These decreases in expenses were partially offset by a decrease of $1.1 million in the recognition of credits pertaining to the CEWS government grant, increases in bonus and termination benefit expenses, and an increase of $0.5 million in share-based payment expenses explained below.

The decrease of $5.0 million in administration expenses during the year ended December 31, 2020 compared to the corresponding period in 2019 was mainly attributable to a reduction of $11.1 million in share-based payments expense, a decrease in payroll and related expenses caused in part by the reduction in the workforce and a reduction in bonus expenses and the recognition of $1.5 million in credits pertaining to the CEWS government grant in 2020, the first year of the program. These decreases in expenditures were partially offset by an increase of $11.0 million in directors' and officers' insurance cost resulting from our listing on Nasdaq and the recognition of a $2.2 million expense pertaining to the additional warrants issued following an amendment to the private placement agreement completed in November 2020.

Share-based payments expense

Share-based payments expense represents the compensation expense recorded as a result of stock options and RSU issued to employees and board members. The table below shows the share-based payments expense recorded in the continuing and discontinuing operations results. This expense has been recorded as follows in the consolidated statements of operations:

	Year ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Administration expenses	$ 3,760	$ 3,248	$ 14,315	$ 512	$ (11,067)
Research and development expenses	936	2,430	2,836	(1,494)	(406)
Loss from discontinued operations	(444)	556	4,879	(1,000)	(4,323)
	$ 4,252	$ 6,234	$ 22,030	$ (1,982)	$ (15,796)

Share-based payments expense for the year ended December 31, 2021 decreased by $2.0 million compared to the corresponding period in 2020, mainly due to the general reduction in the number of employees that are part of the Liminal group, mainly as a result of the sale of our former subsidiaries in 2021 that were part of our former plasma-derived therapeutics segment. This led to an increase in stock option forfeitures which resulted in the reversal of the share-based payment expense pertaining to unvested stock options as well as a reduction in the number of stock options granted in 2021. Share-based payments expense also declined because the average grant date fair value of a stock option has declined over the two-year period. In addition, the impact of the repricing of stock options that took place during the second quarter of 2020 was higher in 2020 since some of the repriced stock options were vested immediately and the repricing expense related to those vested options was immediately recognized. Also due to the general expensing pattern of graded vesting stock options, where the yearly expense of a given grant declines over the years of vesting, the impact of the 2020 repriced options is lower in 2021.

During 2019, we made significant changes to our long-term equity incentive plan to ensure alignment with performance and building shareholder value, and attraction and retention of key employees to drive our future growth. The following changes were made:

- the cancellation in June 2019 and August 2019 of the outstanding share options for active employees in return for the issuance of new vested options having an exercise price reflecting the share price at the time of the grant subject to stockholder approval;
- the modification of the outstanding performance-based RSU into time-vesting RSU; and
- the issuance of the 2019 annual stock option grant to employees and executives. The vesting terms were changed from those set in recent years, especially at the executive level; a portion of the executive grants vested immediately while the overall vesting period was extended up to a period of 6 years.

Some of these changes triggered an immediate or accelerated recognition of share-based compensation expense resulting in an impact of approximately $ 14.9 million on the results during the quarter ended June 30, 2019 alone.

Finance costs

Our finance costs increased by $3.4 million during the year ended December 31, 2021 compared to the corresponding period in 2020 reflecting the increase in our level of indebtedness following (i) the issuance of the secured convertible debentures, or SCD, in July 2020, which remained outstanding until the SCD were converted into our common shares in October 2021, and (ii) the second term loan in September 2020, as we drew down our full line of credit with SALP.

The finance costs decreased by $4.0 million during the year ended December 31, 2020 compared to the corresponding period in 2019 reflecting principally the reduction in interest expense on the long-term debt mainly to a lower average debt level than the previous year despite the long-term debt balance at December 31, 2020 of $40.5 million being higher by $31.7 million from the prior year-end. The average debt balance was higher in 2019 reflecting the significance of the debt up until the debt restructuring that took place on April 23, 2019.

Loss on extinguishment of liabilities

The loss on extinguishment of liabilities of $92.4 million in the year ended December 31, 2019 is principally due to the Company concluding a debt restructuring agreement on April 23, 2019 with our major creditor, SALP where the debt, subsequently referred to as the first term loan, was reduced to $10.0 million plus interest due, in exchange for the issuance by us of 15,050,312 of common share to SALP. The details of the computation of this loss on extinguishments of liabilities is presented in note 17 of our consolidated financial statements for the year ended December 31, 2021.

Change in fair value of financial instruments measured at fair value through profit or loss

On November 3, 2020, as part of the consideration for the private placement, we issued 6,315,788 warrants that expire on November 3, 2025 with an exercise price initially set at US$5.50. On November 25, 2020, we issued an additional 1,578,946 warrants with the same terms and conditions. These warrants do not meet the definition of an equity instrument and are treated as a warrant liability which is measured at fair value through profit and loss on a recurring basis. The change in fair value of the warrant liability from the various issuance dates to December 31, 2020 recognized in the consolidated statement of operations during the year ended December 31, 2020 was a gain of $0.9 million, or otherwise a decrease in the warrant liability. The value of the warrant liability continued to decrease during the year ended December 31, 2021, reflecting the reduction in the market price of our common shares, and resulted in a gain on the change in fair value of $9.9 million.

In November 2018, as part of the modification of the terms of our four loan agreements existing at the time, we issued warrants to SALP. Similarly to the warrant issued in November 2020, the warrants were treated as a warrants liability. The change in fair value of this different warrant liability, recognized in the consolidated statements of operations during the year ended December 31, 2019 was a gain of $1.1 million. These warrants were cancelled as part of the Restructuring Transaction on April 23, 2019.

Net loss from continuing operations

The net loss from continuing operations, net of taxes, decreased by $4.0 million during the year ended December 31, 2021 compared to the corresponding period of 2020 mainly due to a favorable change in fair value of financial instruments measured at fair value through profit and loss of $9.0 million and a favorable foreign exchange variance of $1.4 million. These were partially offset by an increase in R&D and finance costs of $4.1 million and $3.4 million, respectively, as explained above.

The net loss from continuing operations decreased by $101.7 million during the year ended December 31, 2020 compared to the corresponding period in 2019. This decrease is mainly explained by the following:

- the decrease in the loss on extinguishment of liabilities of $92.4 million, related to the debt restructuring that occurred during the second quarter of 2019;
- the decrease in the share-based payments expense of $11.5 million, the majority included in administration expenses, related to the significant changes made to the Company's long-term equity incentive plan in June 2019;
- an increase of $11.0 million in directors and officers insurance costs;
- the decrease in finance cost of $4.0 million for the year ended December 31, 2020 reflecting the lower average levels of debt since the April 23, 2019 debt restructuring; and
- a reduction in employee compensation expenses in combination with an increase in government grants.

Discontinued Operations analysis

The net income (loss) from discontinued operations is made up of the gain we recognized on the sale of our plasma-derived therapeutics and bioseparations businesses.

Gain on sale of subsidiaries

The table below provides the details of the computation of the gain on sale of our former subsidiaries for the years ended December 31, 2021, 2020 and 2019.

Year ended December 31	2021	2020	2019
Sale of bioseparation business			
Proceeds received	$ —	$ 3,380	$ 51,927
Less:			
Carrying amount of net assets sold	—	—	22,015
Transaction costs	—	—	5,015
Reclassification of foreign currency translation reserve from other comprehensive income into the statement of operations	—	—	(1,449)
Gain on sale of bioseparation business	—	3,380	26,346
Sale of plasma collection centers			
Proceeds received	13,570	—	—
Less:			
Carrying amount of net assets sold	10,849	—	—
Transaction costs	204	—	—
Reclassification of foreign currency translation reserve from other comprehensive income into the statement of operations	(44)	—	—
Gain on sale of plasma collection centers	2,561	—	—
Sale of Ryplazim® business			
Proceeds received	159,787	—	—
Less:			
Carrying amount of net assets sold	19,541	—	—
Indemnification adjustments	116	—	—
Transaction costs	2,288	—	—
Gain on sale of Ryplazim business	137,842	—	—
Gain on sale of subsidiaries, net of income taxes $nil	$ 140,403	$ 3,380	$ 26,346

During the year ended December 31, 2021, we recorded a gain on the sale of our subsidiaries that were part of our former plasma-derived therapeutics segment of $140.4 million. The gain reflects the sale of the Ryplazim® business, the plasma collection centers and the PRV.

Following the sale of our interests in PBL and PMI in November 2019, we generated a gain of $26.3 million in the year ended December 31, 2019, the year of the sale, and a gain of $3.4 million in the year ended December 31, 2020 as an additional amount of proceeds was received upon resolution of a taxation matter.

Results from discontinued operations

The following table summarizes the results of the activities that are presented as discontinued operations in the consolidated statements of operations for the years ended December 31, 2021, 2020 and 2019.

	Year ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Revenues	$ 949	$ 2,593	$ 27,233	$ (1,644)	$ (24,640)
Expenses					
Cost of sales and other production expenses	1,465	1,868	14,012	(403)	(12,144)
Research and development expenses	76,733	42,757	65,840	33,976	(23,083)
Administration expenses	2,360	5,933	11,009	(3,573)	(5,076)
Impairment losses	1,411	19,772	11,603	(18,361)	8,169
Gain on foreign exchange	(136)	(633)	(759)	497	126
Finance costs	2,242	6,083	7,926	(3,841)	(1,843)
Gain on extinguishment of liabilities	—	(79)	—	79	(79)
Current income taxes	1	8	53	(7)	(45)
Deferred income taxes	—	—	(24)	—	24
Loss from discontinued operations, net of income taxes	$ (83,127)	$ (73,116)	$ (82,427)	$ (10,011)	$ 9,311

Revenues and cost of sales and other production expenses

Revenues from discontinued operations included revenues from the sale of plasma up until May 21, 2021, the date of the sale of the plasma collection centers and for the entire year for 2020. Revenues for the year ended December 31, 2019 include sales of plasma of $4.7 million and $22.5 million from the bioseparations business, which was sold on November 25, 2019. Accordingly, the cost related to the sale of those products ceased when these businesses were sold.

Research and development expenses

R&D expenses increased by $34.0 million during the year ended December 31, 2021 compared to the corresponding period in 2020. The increase was mainly due to the payment PBT made to PBP, which was under Kedrion's ownership at the time, of $39.5 million, representing thirty percent (30%) of the net PRV proceeds, for past R&D services PBP provided to PBT and a provision for an onerous contract of $22.1 million that was recognized relating to a contract we have with a contract development and manufacturing organization, or CDMO, which is no longer required as a result of the plasma-derived therapeutic segment divestment. This increase was partially offset by a gain of $2.5 million recognized on the reduction of our lease liability. The reduction in lease liability has arisen from the term of the lease having been reduced since we gave a notice of early termination of a master agreement entered with a CDMO, reducing the term of the contract by 3.8 years. In addition, the R&D expenses for the year ended December 31, 2021 included less than one year of operations of PBP and PBT, since they were sold on July 9 and October 15, 2021, respectively. In the year ended December 31, 2020, we had R&D operations in PBP, PBT and also some R&D costs in the plasma collection centers for the entire year.

R&D expenses decreased by $23.1 million during the year ended December 31, 2020 compared to the corresponding period of 2019. The decrease is due in part to the absence of the R&D expense from the bioseparations business in 2019 of $5.9 million and a decrease of $9.7 million in the manufacturing cost of plasma-derived product candidates to be used in clinical trials and for the development of our production processes. Additionally, we recognized a credit of $4.1 million relating to the CEWS grant. We also recognized $1.3 million in R&D tax credit in the year ended December 31, 2020 compared to a reversal of R&D tax credit of $1.0 million in the comparative period following the resolution of R&D tax credit uncertainties regarding the eligibility of certain expenses from 2014 to 2019, upon conclusion of an audit by the taxation authorities in 2020. We also had a reduction in payroll and related expenses of $1.1 million mainly due a reduction of our workforce in our R&D facility in Rockville, MD and a reduction in share-based payments expense. These decreases were partially offset by an increase of $0.6 million related to professional fees and operating expenses incurred to prepare for the FDA audit in connection with the resubmission of the BLA.

Administration expenses

Administration expenses decreased by $3.6 million during the year ended December 31, 2021 compared to the corresponding period of 2020 and this is mainly due to the fact that the administration expenses for the plasma collection centers and for the Ryplazim® business ceased to be included in our 2021 results as those activities were sold during the year, whereas in 2020, we have a full year of these expenses. Administration expenses decreased by $5.1 million during the year ended December 31, 2020 compared to the corresponding period of 2019, mainly due to the absence of the administration, marketing and selling expenses from the bioseparations business in 2019 of $3.4 million.

Impairments

During the year ended December 31, 2020, we recorded an impairment of $0.7 million on capital assets, $18.6 million on right of use assets and $0.5 million on intangible assets related to the Ryplazim® cash generating unit, which was part of the plasma-derived therapeutic segment, representing an aggregate impairment of $19.8 million.

During the year ended December 31, 2019, we recorded an impairment of $7.1 million and $4.5 million on capital assets and intangible assets, for an aggregate impairment of $11.6 million following our decision not to pursue any other indication relating to the human-plasma protein plasminogen a part from the plasminogen congenital deficiency.

Comparison of quarters ended December 31, 2021, 2020 and 2019

The consolidated statements of operations for the quarter ended December 31, 2021 compared to the same periods in 2020 and 2019 are presented in the following tables:

	Quarter ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Revenues	$ 238	$ 284	$ 189	$ (46)	$ 95
Expenses					
Research and development expenses	4,539	2,953	5,351	1,586	(2,398)
Administration expenses	5,820	7,505	8,130	(1,685)	(625)
Loss on foreign exchange	226	654	467	(428)	187
Finance costs	1,621	1,621	195	—	1,426
Gain on extinguishments of liabilities	(86)	—	—	(86)	—
Change in fair value of financial instruments measured at fair value through profit or loss	(3,250)	(850)	—	(2,400)	(850)
Impairment losses	—	1,087	763	(1,087)	324
Net loss from continuing operations before income taxes	$ (8,632)	$ (12,686)	$ (14,717)	$ 4,054	$ 2,031
Income tax expense (recovery) from continuing operations:					
Current	—	—	(1,587)	—	1,587
Deferred	118	(65)	111	183	(176)
	118	(65)	(1,476)	183	1,411
Net loss from continuing operations	$ (8,750)	$ (12,621)	$ (13,241)	$ 3,871	$ 620
Discontinued operations					
Gain (loss) on sale of subsidiaries, net of income taxes $nil	$ (134)	$ 3,380	$ 26,346	$ (3,514)	$ (22,966)
Net loss from discontinued operations, net of taxes	(435)	(30,750)	(27,614)	30,315	(3,136)
Total loss from discontinued operations	$ (569)	$ (27,370)	$ (1,268)	$ 26,801	$ (26,102)
Net loss	$ (9,319)	$ (39,991)	$ (14,509)	$ 30,672	$ (25,482)
Net loss (income) attributable to:					
Non-controlling interests - continuing operations	(75)	(268)	(155)	193	(113)
Owners of the parent					
- Continuing operations	(8,675)	(12,353)	(13,086)	3,678	733
- Discontinued operations	(569)	(27,370)	(1,268)	26,801	(26,102)
Total loss per share	(9,244)	(39,723)	(14,354)	30,479	(25,369)
Net loss	$ (9,319)	$ (39,991)	$ (14,509)	$ 30,672	$ (25,482)
Loss per share attributable to the owners of the parent basic and diluted:					
From continuing operations	$ (0.29)	$ (0.51)	$ (0.81)	$ 0.22	$ 0.31
From discontinued operations	(0.02)	(1.12)	(0.08)	1.10	(1.04)
	$ (0.31)	$ (1.63)	$ (0.89)	$ 1.32	$ (0.73)
Weighted average number of outstanding shares (in thousands)	30,164	24,438	16,062	5,726	8,376

Restatement of the consolidated financial statements for the quarter and nine months ended September 30, 2021

During the preparation of our consolidated financial statements for the year ended December 31, 2021, we identified an error in the consolidated financial statements for the quarter and nine months ended September 30, 2021. Consequently, we have determined a restatement of those financial statements is required. The details of the restatement are provided in item 5A - Summary of quarterly consolidated results.

The correction resulted in the recognition a loss of $7.7 million in the third quarter of 2021, increasing the total loss from discontinued operations during that period instead of reflecting that loss in the results from discontinued operations during the fourth quarter of 2021, had the correction not been made. The results of discontinued operations discussed in this section reflect the correction made to the third quarter 2021 financial statements.

Revenues from continuing operations

The following table provides the breakdown of total revenues from continuing operations by source for the quarter ended December 31, 2021 compared to the corresponding periods in 2020 and 2019:

	Quarter ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Royalty revenues	$ 229	$ 241	$ 155	$ (12)	$ 86
Rental revenue	9	43	34	(34)	9
	$ 238	$ 284	$ 189	$ (46)	$ 95

Research and development expenses

R&D expenses increased by $1.6 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020 mainly due to increases in share-based payments expense, payroll and related expenses and intangible amortization expenses of $0.4 million, $0.9 million and $0.6 million, respectively, and a decrease in the CEWS and CERS government grants and R&D tax credits of $0.4 million each. These increases were partially offset by a decrease in laboratory consumables expense of $1.0 million.

R&D expenses during the quarter ended December 31, 2020 decreased by $2.4 million compared to the corresponding period in 2019 mainly due to a decrease in payroll and related expenses of $3.1 million due to a reduction in our workforce dedicated to our small molecule R&D and a reduction of $0.7 million in share-based payments expense explained below. We also recognized credits of $0.4 million for government grants. and These decreases were partially offset by an increase in laboratory consumables expenses and third-party preclinical studies of $0.9 million and $0.7 million, respectively.

Administration expenses

The decrease of $1.7 million in administration expenses during the quarter ended December 31, 2021 compared to the corresponding period in 2020 was mainly attributable to lower directors' and officers' insurance cost of $1.0 million, starting in the fourth quarter of 2021, as a result of a change in the province of our registered office which changed from Quebec to Ontario. The decrease is also due to the fact that in 2020 there was a $2.2 million expense pertaining to the additional warrants issued following an amendment to the private placement agreement completed in November of that year with no equivalent cost in 2021. These decreases were partially offset by an increase in the share-based payments expense of $1.3 million (explained below) and a reduction in the CEWS and CERS government grants of $0.5 million.

The decrease of $0.6 million in administration expenses during the quarter ended December 31, 2020 compared to the corresponding period in 2019 was mainly attributable to a reduction of $2.6 million in share-based payment expense, a decrease of $0.8 bonus expenses and the recognition of $0.5 million in credits pertaining to the government grants. This decrease was partially offset by an increase of $1.7 million in directors’ and officers’ insurance cost following our Nasdaq listing and the recognition of a $2.2 million expense pertaining to the additional warrants issued following an amendment to the private placement agreement completed in November 2020.

Share-based payments expense

Share-based payments expense represents the expense recorded as a result of stock options and RSU issued to employees and board members. This expense has been recorded as follows in the consolidated statements of operations:

	Quarter ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Administration expenses	$ 415	$ (903)	$ 1,698	$ 1,318	$ (2,601)
Research and development expenses	209	(232)	486	441	(718)
Loss from discontinued operations	—	173	786	(173)	(613)
	$ 624	$ (962)	$ 2,970	$ 1,586	$ (3,932)

Share-based payments expenses increased by $1.6 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020 principally because there were no significant stock option forfeitures in the current period as there was in 2020 as we recognized for accounting purposes the impact of the estimated forfeitures of the unvested stock options held by the former CEO following his resignation in the fourth quarter of 2020. This was partially offset by a lower stock option expense in the current quarter since we have less employees but also the fair value of the stock options have gone down reflecting the lower share price.

Share-based payments expenses decreased by $3.9 million during the quarter ended December 31, 2020 compared to the corresponding period in 2019 mainly due to the accounting impact on the estimated forfeitures for the unvested stock options held by the former CEO following his resignation in November 2020.

Finance costs

Finance costs increased by $1.4 million for the quarter ended December 31, 2020 compared to the corresponding period in 2019, reflecting higher interest expense due to an increased debt level following the issuance of secured convertible debentures in July 2020 and of the second term loan, as we drew down our full line of credit with SALP in September 2020. Financing costs remained at the same level during the fourth quarter of 2021 and 2020.

Change in fair value of financial instruments measured at fair value through profit or loss

The gain on the change in fair value of the warrant liability that is measured at FVPL increased by $2.4 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020 due to a decrease in fair value of the warrant liability mainly driven by a higher decrease in the value of the underlying shares between September 30, 2021 and December 31, 2021, than the decrease between the date of issuance of these warrants on November 3 and 25, 2020 and December 31, 2020. The change in fair value between their issuance dates in November 2020 and December 31, 2020 was a gain of $0.9 million.

Net loss from continuing operations

The net loss from continuing operations decreased by $3.9 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020. This was mainly driven by the reduction in administration expenses of $1.7 million and the increase in the gain on the change in fair value of the warrant liability that is measured at FVPL losses of $2.4 million. These decreases were partially offset by an increase in R&D expenses of $1.6 million as explain above.

The net loss from continuing operations increased by $0.6 million during the quarter ended December 31, 2020 compared to the corresponding period in 2019. This was mainly driven by the reduction in R&D expenses of $2.4 million and the increase in finance costs of $1.4 million.

Loss from discontinued operations

The net losses from discontinued operations, net of taxes decreased by $30.3 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020. This decrease was mainly due to the recognition of an impairment of $19.7 million during the fourth quarter of 2020 and due to the fact that we only had a small loss from discontinued operations of $0.4 million since there were only minor expenses incurred from October 1 to October 15, 2021 when PBT was sold compared to having the full operations of the plasma-derived therapeutics segment in during the quarter ended December 31, 2020. The gain on sale of subsidiaries declined by $3.5 million during the quarter ended December 31, 2021 compared to the corresponding period in 2020 as in the 2020 we recognized an additional gain of $3.4 million upon the resolution of a tax uncertainty in relation to the sale of our bioseparation business.

The net losses from discontinued operations increased by $3.1 million during the quarter ended December 31, 2020 compared to the corresponding period in 2019. The increase is explained in part by the absence of the net income contribution from the former bioseparations business of $1.1 million. The gain from the sale of the subsidiaries of $26.3 million during the quarter ended December 31, 2019 comes from the sale of the bioseparations business.

Selected annual information

The following table presents selected audited annual information for the years ended December 31, 2021, 2020 and 2019.

		2021		2020		2019
Revenues	$	643		724		745
Net loss from continuing operations attributable to owners of the parent		(44,394)		(48,189)		(149,628)
Net loss from continuing operations per share attributable to owners of the parent (basic and diluted)		(1.47)		(1.97)		(9.32)
Total assets		126,053		117,784		165,098
Total long-term financial liabilities	$	73,678	$	78,785	$	38,721

Revenues include nominal amounts of royalty and rental revenues which remained fairly consistent over the years ended December 31, 2021, 2020 and 2019. Royalty revenues are dependent on sales made by a third party.

The net loss from continuing operations attributable to the owners of the parent decreased by $3.8 million during the year ended December 31, 2021 compared to the corresponding period of 2020 mainly due to a reduction in the fair value of the warrant liability, presented in the profit and loss as a change in fair value of financial instruments measured at fair value through profit and loss of $9.0 million and a favorable foreign exchange variance of $1.4 million. These were partially offset by an increase in R&D and finance costs of $4.1 million and $3.4 million, respectively, as explained above.

The net loss from continuing operations attributable to the owners of the parent decreased by $101.4 million during the year ended December 31, 2020 compared to the corresponding period in 2019. This decrease is mainly explained by the following:

- the decrease in the loss on extinguishment of liabilities of $92.4 million, related to the debt restructuring that occurred during the second quarter of 2019;
- the decrease in the share-based payments expense of $11.5 million, the majority included in administration expenses, related to the significant changes made to the our long-term equity incentive plan in June 2019;
- an increase of $11.0 million in directors and officers insurance costs;
- the decrease in finance cost of $4.0 million for the year ended December 31, 2020 reflecting the lower average levels of debt since the April 23, 2019 debt restructuring; and
- a reduction in employee compensation expenses in combination with an increase in government grants.

The net loss from continuing operations per share attributable to the owners of the parent on a basic and diluted basis reflects the changes in the net loss from continuing operations attributable to the owner of the parent but also the increase in the number of common shares outstanding from year to year. The number of common shares increased in 2019, as a significant number of common shares were issued in April 2019 upon a debt restructuring transaction and the issuance of equity following private placements; in 2020, the common shares outstanding increased following a private placement which was concluded in November 2020 and finally in 2021, the common shares increased following the conversion of secured convertible debentures into shares in October 2021. The weighted average number of shares increased from 16,062 thousand common shares in 2019 to 24,438 thousand common shares in 2020 and to 30,164 thousand common shares in 2021.

Total assets increased by $8.3 million from $117.8 million at December 31, 2020 to $126.1 million at December 31, 2021 reflecting the increase in cash of $63.4 million as a result of the proceeds we received from the sale of our plasma-derived therapeutic business which was mostly offset by the decrease in all of the assets sold.

Total assets decreased by $47.3 million from $165.1 million at December 31, 2019 to $117.8 million at December 31, 2020 mainly due to a reduction in cash and cash equivalents of $16.2 million, a reduction of income tax receivable of $9.2 million as prior year claims were received and no new claims are being recorded as we are no longer eligible for U.K. R&D tax credit, and a reduction in the long-term assets following the impairment recorded on certain of the plasma-derived therapeutic assets in 2020. Total assets increased by $62.2 million from $102.9 million at December 31, 2018 to $165.1 million at December 31, 2019 mainly due to recognition of the right-of-use assets following the adoption of IFRS 16 and a higher cash and cash equivalents balance at December 31, 2019 by $53.9 million.

Long-term financial liabilities decreased by $5.1 million at December 31, 2021 from December 31, 2020 mainly due to the liabilities disposed of with the sale of the plasma-derived therapeutic business of $5.9 million, the decrease of the warrant liability of $9.9 million and the conversion of the secured convertible debt, in 2021, that had a balance of $2.5 million at December 31, 2020. The decreases were mostly offset by the recognition of a provision for onerous contract of $18.2 million.

Long-term financial liabilities increased by $40.1 million at December 31, 2020 from December 31, 2019, mainly due our drawdown on the non-revolving line of credit of $29.1 million on September 14, 2020 and to the November 2020 warrants recognized as a warrant liability having a balance of $11.6 million at December 31, 2020. Long-term financial liabilities decreased by $88.2 million at December 31, 2019 from December 31, 2018, mainly due to the restructuring of the long-term debt on April 23, 2019, which was partially offset by the recording of the long-term portion of lease liabilities following the adoption of IFRS 16 on January 1, 2019.

Summary of consolidated quarterly results

The following table presents selected quarterly financial information for the last eight quarters:

	2021				2020			
	Q4	Q3 (restated)	Q2	Q1	Q4	Q3	Q2	Q1
Revenues	$ 238	$ 170	$ 25	$ 210	$ 284	$ 202	$ 36	$ 202
R&D expenses	4,539	4,973	3,951	4,884	2,953	3,285	3,981	4,015
Administration expenses	5,820	9,420	8,551	8,137	7,505	7,534	8,503	9,077
Element attributable to the owners of the parent:								
Net loss from continuing operations	(8,675)	(9,797)	(12,504)	(13,418)	(12,353)	(11,079)	(13,101)	(11,656)
Net income (loss) from discontinued operations	(569)	84,228	(19,536)	(6,847)	(27,370)	(12,019)	(14,659)	(15,688)
Basic and diluted earnings per share from continuing operations	(0.29)	(0.33)	(0.42)	(0.45)	(0.45)	(0.47)	(0.56)	(0.50)
Basic and diluted earnings per share from discontinuing operations	(0.02)	2.82	(0.65)	(0.23)	(1.00)	(0.51)	(0.63)	(0.67)

Restatement of the third quarter 2021 financial statements for the quarter and nine months ended September 30, 2021

During the preparation of our consolidated financial statements for the year ended December 31, 2021, we noted that the third quarter 2021 financial statements contained a material misstatement which required a restatement of those financial statements. In the third quarter financial statements, the carrying value of PBT, which was classified as held for sale, exceeded its fair value less costs to sell. We have proceeded to restate the third quarter 2021 financial statements:

- by recording a reduction in the carrying amount of the prepaids and intangible assets, both included in the ''Assets of a disposal group held for sale'' on the consolidated statement of financial position at September 30 2021, by $6.3 million and $1.4 million, respectively; and
- by recognizing an impairment loss on the intangible assets of $1.4 million and a R&D expense of $6.3 million. Both items are included in the net loss from discontinued operations. Corresponding adjustments to the earnings per share amounts were made.

Analysis of the quarterly results

Following the reclassification of the results of the plasma collection centers and the Ryplazim® business as discontinued operations, the revenues include nominal amounts of royalty and rental revenues.

R&D expenses were generally lower in 2020 than in 2021. This was attributable in most part to the fact that we were benefiting from the CEWS and CERS government grants from the second quarter of 2020 up until the middle of the second quarter of 2021. In general, payroll and related expenses recorded in R&D declined between the first quarter of 2020 and the fourth quarter of 2021 due to a reduction in the number of employees. Starting the fourth quarter of 2020 and onwards, we had a general increase in clinical trial expenses as we were conducting our Fezagepras phase 1 MAD study.

Administration expenses where higher during the third quarter of 2021 due to an acceleration of the share-based payments expense following the departure of one of our executive members and 2) the payroll and related expenses were higher due to recognition of termination benefits resulting from a reduction in employees and a transaction bonus following the divestment of our former plasma-derived therapeutics segment. The administration expense for the fourth quarter of 2021 is lower compared to the previous quarter reflecting the lower staff level and lower directors' and officers' insurance by $1.3 million, as a result of a change in the province of our registered office which changed from Quebec to Ontario from the middle of the fourth quarter of 2021.

Both R&D and administration expenses are affected by fluctuations in share-based payment expenses from quarter to quarter.

The variations in the net loss from continuing operations over the last eight quarters were affected by R&D expenses and administration expenses variations as explained above. In addition, the following quarters were impacted by an impairment of intangible assets of $1.1 million for the fourth quarter of 2020 and by gains on the changes in fair value of the warrant liability that is measured at FVPL, which reduced the net loss from continuing operations by $5.1 million and $3.3 million during the third quarter of 2021 and the fourth quarter of 2021, respectively.

Net losses from discontinued operations fluctuated significantly over the last eight quarters in part because of the varying R&D and administration expenses but the main variations are due to significant events impacting the results, including the recognition of 1) impairment losses of $19.8 million in the fourth quarter of 2020; 2) an expense for an onerous contract provision of $21.9 million during the second quarter of 2021; 3) a compensation expense for R&D services of $45.8 million payable during the third quarter of 2021 upon receipt of the PRV proceeds, and 4) the impact of the sale of former businesses.

In this regard, during the fourth quarter of 2020, we recognized a gain on the sale of the bioseparations business of $3.4 million, gains of $10.7 million and $129.8 million on the sale of our subsidiaries in the plasma-derived therapeutics segment during the second quarter and the third quarter of 2021, respectively. The gain of $129.8 million includes the gain recorded on the sale of the PRV.

The basic and diluted loss per share from continuing operations declined over the last eight quarters, particularly during the third quarter and the fourth quarter of 2021 principally reflecting the lower losses from continuing operations while the basic and diluted loss per share from discontinued operations varied in accordance principally with the loss from discontinued operations for each period. In addition, during the fourth quarter of 2020 and 2021, we issued shares which ultimately reduce the basic and diluted loss per share from their date of issuance and for the following quarters because they increase the weighted average number of shares.

Acquisition of Fairhaven Pharmaceuticals Inc.

Pursuant to a share purchase agreement, or SPA, dated July 17, 2020, we acquired 100% of the issued and outstanding common shares of Fairhaven, a company with a preclinical research program of small molecule antagonists. In payment of the initial amount of $3.6 million due upon closing of the acquisition, we issued 202,308 common shares recorded at a fair value of $3.4 million based on the closing price of our common shares at the date of the transaction. Upon achievement of certain pre-determined research and development milestones prior to the fifth anniversary of the closing date of the acquisition, additional payments in the form of common shares totaling up to $4.4 million may become due.

As Fairhaven did not meet the definition of a business under IFRS 3, "Business Combinations", the acquisition has been accounted for as an asset acquisition essentially resulting in the recognition of an intangible asset representing the licensing rights acquired. Refer to note 5 to the consolidated financial statements for the year ended December 31, 2020 for the complete details regarding the accounting for this transaction.

Outstanding share data

We are authorized to issue an unlimited number of common shares. At March 7, 2022, 31,042,560 common shares, 1,776,778 options to purchase common shares and 8,067,469 warrants to purchase common shares were issued and outstanding.

Transactions between related parties (as defined per IAS 24)

Balances and transactions between our subsidiaries, which are related parties, have been eliminated on consolidation and are not reported. These transactions have been recorded at the exchange amount, meaning the amount agreed to between the parties.

At December 31, 2021 and 2020, a former CEO had a balance of $283 and $170, respectively, owing to us under a tax equalization program, the amounts to be repaid once a refund is received from the taxation authority for each of the two years covered by the program.

SALP subsequently became our majority shareholder, or our parent entity, following a debt restructuring completed on April 23, 2019.

All material transactions with SALP are disclosed in notes 16, 18a, 19a, 19c, 28, 30 and 33 in the consolidated financial statements for the year ended December 31, 2021. The key transactions with our parent entity mainly pertain to financing transactions and are for significant amounts. Related party transactions with SALP include:

- the recording and payment of interest on the loans with SALP with cash;
- the reimbursement of the loans;
- the payment of a fixed quarterly royalty;
- the issuance of common shares, with warrants in exchange for cash; and
- the reimbursement of professional fee expenses.

In addition to the above, we revalue our warrant liability, pertaining to warrants that are partly held by SALP, at each reporting period, which results in variations of the liability on the consolidated statement of financial position and in the consolidated statement of operations.

Changes in accounting policies

The accounting policies used in our annual consolidated financial statements are consistent with those we applied in our December 31, 2020 and 2019 audited annual consolidated financial statements except for the amendments to certain accounting standards which were adopted since January 1, 2020 as described below.

Amendments to *IFRS 3, Business Combinations* or IFRS 3 - The amendments to IFRS 3 clarifies the definition of a business and includes an optional concentration test to determine whether an acquired set of activities and assets is a business. These amendments were adopted on January 1, 2020 and are applied prospectively to acquisitions made on or after this date.

Amendment to *IFRS 16*, *Leases* or IFRS 16 for COVID-19-Related Rent Concessions **-** IFRS 16 has been revised to incorporate an amendment issued by the IASB in May 2020. The amendment permits lessees not to assess whether particular COVID-19-related rent concessions are lease modifications and, instead, account for those rent concessions as if they were not lease modifications. In addition, the amendment to IFRS 16 provides specific disclosure requirements regarding COVID-19-related rent concessions. The amendment was adopted by us as of January 1, 2021 and had no impact on the financial statements for the year ended December 31, 2021 since we have not benefited from COVID-19 related rent concessions.

Amendment to *IAS 1, Presentation of Financial statements* or IAS 1 **-** IAS 1 has been revised to require the disclosure of material accounting policies rather significant accounting policies and provides guidance to apply materiality judgments to accounting policy disclosure. We early adopted these amendments, and consequential amendments to other standards, for our annual audited financial statements for the year ended December 31, 2021 resulting in a reduction in our accounting policy disclosures.

New Standards and interpretations not yet adopted

The IFRS accounting standards, amendments, and interpretations that we reasonably expect may have a material impact on our disclosures, financial position or results of operations when applied at a future date are as follows:

Amendments to IAS 37, Provisions, Contingent Liabilities and Contingent Assets (IAS 37) **-** IAS 37 has been revised to specify which costs an entity includes in determining the cost of fulfilling a contract for the purpose of assessing whether the contract is onerous. The amendments are effective for annual reporting periods beginning on or after January 1, 2022. The cumulative effect of initially applying the amendment, if any, will be recorded as an adjustment to the opening retained earnings and comparative periods will not be restated. Earlier application is permitted. We have determined that the adoption of this modification as of January 1, 2022 will not have an impact on the provision presently recorded at December 31, 2021.

Amendment to *IFRS 9 Financial Instruments (*IFRS 9) - IFRS 9 has been revised to clarify the fees an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and is to be applied to financial liabilities that are modified after the date of adoption. Earlier application is permitted.

Amendments to I*AS 8, Accounting policies*, *Changes in Accounting Estimates and Errors* (IAS 8) *and IAS 1, Presentation of Financial Statements* (IAS 1) - The amendments to IAS 8 introduce a definition of accounting estimates and provide clarifications to distinguish accounting policies from accounting estimates. In addition, IAS 1 has been revised to clarify how to classify debt and other liabilities as current or non-current.

The amendments help to determine whether, in the statement of financial position, debt and other liabilities with an uncertain settlement date should be classified as current (due or potentially due to be settled within one year) or non-current. The amendments also include clarifying the classification requirements for debt an entity might settle by converting it into equity. The amendments are applicable retrospectively and is effective for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted.

Amendments to *IAS 12, Income taxes* (IAS 12) - The amendments to IAS 12 clarify the accounting for deferred tax assets or liabilities arising from a single transaction such as leases, namely that the scope of the recognition exemption no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences. The amendments are effective for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted.

We are evaluating the impact the amendments to IAS 8, IAS 1 and IAS 12 will have on our consolidated financial statements.

Significant judgments and estimates

Our management's discussion and analysis of financial condition and results of operations are based on our financial statements, which have been prepared in accordance with IFRS. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in our financial statements. We base our estimates on historical experience, known trends and events and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. In making estimates and judgments, management employs material accounting policies. See Note 2 to our consolidated financial statements for the year ended December 31, 2021 for a description of our material accounting policies.

We believe that the most significant management judgments and assumptions in the preparation of our consolidated financial statements are described below.

Going concern - In assessing whether the going concern assumption is appropriate and whether there are material uncertainties that may cast significant doubt about our ability to continue as a going concern, we must estimate future cash flows for a period of at least twelve months following the end of the reporting period by considering relevant available information about the future. We take into consideration a wide range of factors relating to expected cash inflows such as whether we will earn other revenues, what will be the next steps in our research and development programs and the related expenditures as well as the financing strategy we would like to pursue and the potential sources of debt and equity financing available to us in case further financing is desired. We have also estimated expected cash outflows such as operating and capital expenditures and debt repayment schedules. These cash flow estimates are subject to uncertainty.

Functional currency – We review the functional currency of foreign subsidiaries on an ongoing basis to assess if changes in the underlying transactions, events and conditions have resulted in a change. This assessment is also performed for new subsidiaries. When assessing the functional currency of a foreign subsidiary, we apply our judgment in order to determine, amongst other things, the primary economic environment in which an entity operates, the currency in which the activities are funded and the degree of autonomy of the foreign subsidiary from the reporting entity in its operations and financially. Judgment is also applied in determining whether the inter-company loans denominated in foreign currencies form part of our net investment in the foreign subsidiary. Considering such loans as part of the net investment in the foreign subsidiary results in foreign currency translation gains or losses from the translation of these loans being recorded in other comprehensive loss instead of the consolidated statement of operations.

Share-based compensation **-** On March 23, 2020, our board of directors approved a plan to seek shareholder approval to modify the exercise price of certain stock options as disclosed in note 19b in the consolidated financial statements. In order to determine when the expense related to this modification is recognized in our consolidated statement of operations, we evaluated the timing of notification to option holders, the timing and method of determining the exercise price and the service period. We further considered whether the holders of the stock options had sufficient understanding of the terms and conditions of the potentially revised awards, the degree of certainty of the approval for the repricing and whether the service period for earning the rights to the awards had commenced. We concluded that the definition of the grant date was not met but that the service period had commenced and therefore a preliminary calculation of the incremental fair value of the repricing of the awards was performed using assumptions as of March 31, 2020. On May 26, 2020, the conditions for a grant date were met and the options exercise price was revised to $15.21 and a final calculation to determine the incremental fair value of the repriced options was performed.

COVID-19 – The negative impact of the COVID-19 pandemic on our financial statements for year ended December 31, 2021 and 2020 has been limited. During a portion of those two years, we were eligible for salary and rent subsidy programs from the Government of Canada under which we submitted claims. As of the date of this MD&A, there are no subsidy programs to which we are eligible. Consistent within the global biopharmaceutical sector, some clinical programs may have been and may be impacted by the shift of resources within hospitals and contract research organizations, or CRO, to COVID-19 and related matters, resulting in potential delays to recruitment or site initiation on our clinical and preclinical programs, and potentially causing an adjustment of certain development timelines and activities. The partial disruption caused by COVID-19 may continue to impact our operations, workforce and overall business by delaying the progress of our research and development programs, regulatory submissions and reviews, and business and corporate development activities. There is uncertainty as to the duration of the COVID-19 pandemic and related government restrictions, including travel bans, the impact on our workforce, and the availability of healthy subjects and patients for the conduct of clinical trials and its impact on the global economy. The effects of the COVID-19 pandemic continue to be fluid.

Fair value of financial instruments – The individual fair values attributed to the different components of a financing transaction, are determined using valuation techniques. We use judgment to select the methods used to determine certain inputs/assumptions used in the models and the models used to perform the fair value calculations in order to determine, 1) the values attributed to each component of a transaction at the time of their issuance, 2) the fair value measurements for certain instruments that require subsequent measurement at fair value on a recurring basis and 3) the fair value of financial instruments subsequently carried at amortized cost. When the determination of the fair value of a new loan is required, discounted cash flow techniques which includes inputs that are not based on observable market data and inputs that are derived from observable market data are used. When determining the appropriate discount rates to use, we seek comparable interest rates where available. If unavailable, we use those considered appropriate for the risk profile of a Company in the industry.

In determining the fair value of the warrants issued in November 2020 presented as a warrant liability in the consolidated statements of financial position at December 31, 2021 and 2020, and considered to be a level 3 measurement, we made assumptions on unobservable inputs used in the valuation model that have an important impact on the resulting fair value computed.

Notably, we estimated the timing and the amounts of equity financings we expect to complete before the expiry of those warrants. The fair value computed could be higher if our actual equity financing needs are higher than those expected. We also estimated the future volatility of the common shares of Liminal for the contractual life of the warrants. To do so, we used the historical volatility of our shares and of comparable companies in the same industry as a starting basis for this estimate and also considered whether there are factors that would indicate that the historical volatility is not indicative of the future. In addition, we applied an illiquidity discount rate on the resulting Black-Scholes pricing model to reflect that the November 2020 warrants are not publicly traded instruments and therefore the ability to sell them is limited. In establishing the illiquidity discount rate, we considered the remaining life of the warrants and the volatility assumption for the underlying shares. The fair value of the warrants could be higher if we had selected a higher volatility assumption and/or a lower illiquidity discount rate.

The fair value estimates could be significantly different because of the use of judgment and the inherent uncertainty in estimating the fair value of these instruments that are not quoted in an active market.

Uncertainty over income tax treatments - We measure R&D tax credits for the current and prior periods at the amount we expect to recover, based on our best estimate and judgment, of the amounts we expects to receive from the tax authorities as at the reporting date, either in the form of income tax refunds or refundable grants. However, there are uncertainties as to the interpretation of the tax legislation and regulations, in particular regarding what constitutes eligible R&D activities and expenditures, as well the amount and timing of recovery of these tax credits. In order to determine whether the expenses we incur are eligible for R&D tax credits, we must use judgment in determining whether our complex R&D activities qualify for available tax credits, which makes the recovery of tax credits uncertain. As a result, there may be a significant difference between the estimated timing and amount recognized in the consolidated financial statements in respect of tax credits receivable and the actual amount of tax credits received as a result of the tax administrations' reviews of matters that were subject to interpretation. These uncertainties, relating to entities we have sold may still affect Liminal as certain indemnification obligations may be called upon, subject to contractual limitations, when these entities may be subjected to the tax administrations reviews for taxation periods prior to the sale. The amounts recognized in the consolidated financial statements are based on our best estimates and in our best possible judgment, as noted above.

Assessing the recoverable amount of long-lived assets - We evaluate the recoverable value of long-lived assets when indicators of impairment arise or as part of the annual impairment test, if they are intangible assets not yet available for use. The recoverable value is the higher of the value in use and the FVLCD.

Long-lived assets include capital assets, ROU assets and intangible assets such as patents and licenses and other rights. Some of these rights are considered not available for use until regulatory approval to commercialize the product candidate is obtained.

When calculating the net recoverable amounts for the impairments, we make estimates and assumptions regarding the outcome of certain future events, future cash flows and their timing.

When determining the FVLCD for its Ryplazim® CGU in 2020, significant estimates we made include amongst others, the outcome of the exercise we had undertaken in evaluating the potential alternatives for the Ryplazim® CGU, including the probability of completing a sale or closing those activities; the operating cash outflows to support those operations until one of the alternative strategies was executed; the outcome of the FDA review of the BLA for our Ryplazim® product candidate and the timing of completion of this review; if we will be able to benefit from the monetization of a Priority Review Voucher, if received, and what would be the amount received upon its monetization; and whether some assets, liabilities and commitments could potentially be excluded from the activities sold and for those commitments that could be retained, the possibility of reducing those commitments and what would be their settlement amount.

A plus or minus 10% change in the probability weighted terminal value would have impacted the impairment we recorded on the Ryplazim® CGU by $3,638.

In addition, when calculating the FVLCD of an asset or a group of assets for which selling price information for comparable assets are not readily available, we also must make assumptions regarding the value it may recuperate from its sale.

Share-based compensation – To determine the fair value of stock options on a given date, we must determine the assumptions that will be used as inputs to the Black-Scholes option pricing model, including the assumption regarding the future volatility of our common shares for the expected life of the stock options. We use the historical volatility as a starting basis for the estimate and also consider whether there are factors that would indicate that the past volatility is not indicative of the future volatility. In making this assessment, we consider changes in our activities and other factors such as a significant share consolidation. As the volatility is an assumption that has a significant impact on the calculated value of a stock option, the impact of this estimate can significantly impact the share-based payment expense over the vesting period of an award.

Valuation of deferred income tax assets – To determine the extent to which deferred income tax assets can be recognized, we estimate the amount of probable future taxable profits that will be available against which deductible temporary differences and unused tax losses can be utilized. We exercise judgment to determine the extent to which

realization of future taxable benefits is probable, considering the history of taxable profits, budgets and forecasts and availability of tax strategies.

Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. As of the date of issuance of this MD&A, we are unaware of any specific event or circumstance that would require us to update our estimates, assumptions and judgments or revise the carrying value of our assets or liabilities, and we are unable to estimate the potential impact on our future business or our financial results as of the date of this filing. These estimates may change as new events occur and additional information is obtained and changes in those estimates are recognized in the consolidated financial statements as soon as they become known.

Financial instruments

Use of financial instruments

The financial instruments that we use result from our operating and investing activities, namely in the form of accounts receivables and payables, and from our financing activities resulting usually in the issuance of long-term debt. We do not use financial instruments for trading purposes and have not issued or acquired derivative financial instruments for hedging purposes. The following table presents the carrying amounts of our financial instruments at December 31, 2021 and 2020.

	2021	2020
Financial assets		
Cash	$ 108,490	$ 45,075
Trade and other receivables	788	1,664
Restricted cash	—	178
Long-term deposits	30	137
Financial liabilities		
Trade payables	$ 5,762	$ 9,153
Wages and benefits payable	1,297	3,083
Royalty payment obligations	123	3,355
Provisions	22,195	—
Warrant liability	1,754	11,640
Long-term debt	38,311	40,532

Impact of financial instruments in the consolidated statements of operations

The following line items in the consolidated statement of operations for the quarter and the year ended December 31, 2021 include income, expense, gains and losses relating to financial instruments:

- loss on extinguishments of liabilities;
- change in fair value of financial instruments measured at fair value through profit or loss;
- finance costs; and
- foreign exchange gains.

Liquidity and Capital Resources

Overview

Since completing the divestment of our plasma collection centers and our Ryplazim® business with the sale of the last entity, PBT, on October 15, 2021, our funding needs for our operations will be focused on our small molecules business with the exception of the continuing contractual obligation we have retained from our involvement in the Ryplazim® business towards a CDMO.

We have $108.5 million in cash at December 31, 2021. In February 2022, we repaid the $39.1 million of outstanding long-term debt with SALP. The repayment, despite not being due for another two years, saves us $9.1 million in interest payments over the remaining term of the two loans. The repayment will also provide us additional flexibility in the future in relation to potential deal making around our pipeline assets. Our only remaining significant liability is with the CDMO referred to above, and at the present time, we are unsure about the timing and the amounts that will eventually be disbursed. The total commitment under this contract is $9.0 million per year up until August 2026. We are investigating different avenues to potentially reduce the impact of this contract, which we are unable to benefit from, on our future cash outflows.

In regards to our small molecule research and development activities, we expect our ongoing funding requirements to increase over time as we continue the research and development of our portfolio of compounds and continue or initiate potential clinical trials. Furthermore, we expect to continue to incur costs associated with operating as a public company.

Accordingly, until we can generate sufficient and recurring revenues to finance future cash requirement, it is likely that we will need to secure additional external financing which may include public or private equity offerings, debt financings, strategic collaborations, alliances and licensing arrangements, grant funding or other sources. Despite our efforts to obtain the necessary funding and further reduce the costs of our operations, there can be no assurance of our access to further funding on acceptable terms, if at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, shareholder ownership interest may be diluted, and the terms of any additional securities may include liquidation or other preferences that adversely affect the rights of shareholders.

Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, or declaring dividends.

If we raise funds through additional collaborations, strategic alliances, or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates, or to grant licenses on terms that may not be favorable to us. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce or eliminate our R&D programs, clinical trials or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Liquidity position at December 31, 2021 and analysis of going concern

For the year ended December 31, 2021, we incurred a net loss from continuing operations of $45.1 million. We had a working capital position of $96.1 million which comprised $108.5 million of cash at December 31, 2021. The increase in our liquidities since December 31, 2020 reflects the proceeds received form the divestment of our former plasma-derived therapeutics segment and the lower cash-burn of our small molecules business. Since December 31, 2021, we repaid the entirety of our long-term debt reducing our cash position by $39.1 million as a result.

Considering our main activities continue to be related to the preclinical and clinical stage, our cash runway is dependent on the research programs that are currently underway, the pace of their progression and the results they render, as well as those planned to be undertaken in the short term. As such, there is always a degree of uncertainty in regards to the outcome or cost of those programs. The cash runway is also dependent on decisions we make in terms of managing our capital, including raising capital through the issuance of debt and equity or repaying financial obligations before their maturity, and our ability to conclude such financing transactions at an acceptable cost. As such, there is uncertainty whether our current financial position will be sufficient to fund our operations for at least the next 12 months and it is likely that additional sources of funding will be required during this time. Additional external financing may include public or private equity offerings, debt financings, strategic collaborations, alliances and licensing arrangements, grant funding or other sources. It may also come from the monetization of certain non-core assets.

Despite the Company's efforts to obtain the necessary funding and improve profitability of its operations, there can be no assurance of its success in doing so, especially with respect to its access to further funding on acceptable terms, if at all.

Until we are successful in completing one or more significant financing transactions that may change our financial condition (which may not be available on acceptable terms, if at all), our current circumstances indicate the existence of a material uncertainty that may cast significant doubt about our ability to continue as a going concern. The perception that we may not be able to continue as a going concern may also make it more difficult to operate our business due to concerns about our ability to meet our contractual obligations and may make it more difficult to obtain a reasonable value on assets we may decide to sell. Further, if we are unable to secure additional capital, we may be required to curtail our research and development initiatives and take additional measures to reduce costs in order to conserve our cash in amounts sufficient to sustain operations and meet our obligations. These measures could cause significant delays in our preclinical, clinical and regulatory efforts, which are critical to the realization of our business plan. See "Item 3.D—Risk Factors".

The audited consolidated financial statements as of December 31, 2021 do not include any adjustments to the amounts and classification of assets and liabilities that might be necessary should we be unable to continue as a going concern. Such adjustments could be material.

Tabular Disclosure of Contractual Obligations

The timing and expected contractual outflows required to settle our financial obligations recognized in the consolidated statement of financial position at December 31, 2021 and unrecognized purchase obligations and commitments are presented in the table below:

		Contractual Cash flows				
	Carrying amount	**Less than 1 year**	**1-3 years**	**3 - 5 years**	**More than 5 years**	**Total**
Accounts payable and accrued liabilities [1)]	$ 7,343	$ 7,343	$ —	$ —	$ —	$ 7,343
Other Long-term liabilities	98	—	51	51	197	299
Lease liabilities	22,471	7,369	10,629	8,285	—	26,283
Long-term debt [2)]	38,311	3,945	44,297	—	—	48,242
Provisions	22,195	3,961	9,094	9,544	—	22,599
	$ 90,418	$ 22,618	$ 64,071	$ 17,880	$ 197	$ 104,766

[1)] Short term portions of the royalty payment obligations and of other employee benefit liabilities are included in the account payable and accrued liabilities.

[2)] Under the terms of the consolidated loan agreement, SALP may decide to cancel a portion of the principal value of the loans as payment upon the exercise of their 168,735 warrants and 3,947,367 November 2020 warrants. The maximum repayment due on the loan has been included in the above table. On February 15, 2022, the entirety of the long-term debt was repaid in advance of the maturity date as discussed above.

Royalties

At December 31 2021, SALP had a right to receive a 2% royalty on future revenues relating to patents of a specified small molecule product candidate and analogues, existing as of the date the royalty stream agreement was signed. On February 15, 2022, following the repayment of the entirety of the long-term debt, the royalty stream agreement with SALP was terminated resulting in the derecognition of the royalty payment obligation to SALP.

In the normal course of business, we enter into license agreements for the market launching or commercialization of product candidates, if approved. Under these licenses, including the ones mentioned above, we have committed to pay royalties ranging generally between 0.5% and 12.0% of net sales from products we may commercialize, if approved, and 3% of license revenues in regard to certain small molecule product candidates.

Debt Facility

Line of credit and term loans

On November 11, 2019, we entered into an amendment to our April 23, 2019 consolidated loan agreement with SALP to include a non-revolving $75.0 million secured line of credit, or the LOC. On September 14, 2020, we drew down $29.1 million, which represented the entire balance available on the LOC, which resulted in the issuance of the second term loan. On February 15, 2022, we repaid the entirety of the first and second term loan, for an aggregate amount of $39.1 million, by making a payment in cash, thus terminating the consolidated loan agreement with SALP and releasing of the security interests granted over our assets pursuant to the loan agreement and related documents. The repayment also terminated the royalty stream agreement with SALP resulting in the derecognition of the royalty payment obligation of $0.1 million due to SALP and the 168,735 warrants held by SALP, having an exercise price of $15.21 per common shares were cancelled.

Secured convertible debentures

Concurrently with the Fairhaven acquisition that closed on July 17, 2020, we issued secured convertible debentures, or SCD, to certain former Fairhaven shareholders, for an aggregate principal amount of $2.4 million and bearing an interest rate of 8% per annum, compounded quarterly.

On October 20, 2021, the Company exercised its right to convert the entirety of its SCD, having a balance of $2,664 on the conversion date into 1,098,577 of our common shares, using a conversion price of $2.42 (USD 1.96) calculated as the volume weighted average trading price of the shares in the five trading days immediately preceding the conversion. Our conversion right became exercisable upon the occurrence of an event which resulted in the Company having a cash balance over $75,000. The difference between the carrying value of the SCD and the fair value of the common shares issued and recorded in share capital of $2,589, calculated using the closing trading price on the conversion date, was $75 and was recorded as a gain on extinguishment of a liability. The security on the SCD on the assets of Fairhaven was released when the debt was extinguished.

The other parties to the share purchase agreement dated July 17, 2020 and the Company entered into an amendment to this agreement in November 2021 to terminate 1) the collective rights of certain sellers to purchase additional SCD issued by us for an aggregate principal amount of up to $5,740 with substantially the same terms and conditions as set out in the original SCD and 2) our right, if the pre-determined events allowing us to trigger the conversion of the SCD occur prior to the maturity date, to require certain sellers to purchase additional SCD for an aggregate principal amount of up to $5,740, which would then be converted into our common shares.

Cash flow analysis

The following major cash flow components are presented on a total company basis, inclusive of continuing and discontinued operations.

The summarized consolidated statements of cash flows for continuing and discontinued operations in aggregate, for the year ended December 31, 2021 and the corresponding periods in 2020 and 2019 are presented below.

	Year ended December 31			Change	
	2021	2020	2019	2021 vs 2020	2020 vs 2019
Cash flows used in operating activities	$ (99,603)	$ (75,917)	$ (99,390)	$ (23,686)	$ 23,473
Cash flows (used in) from financing activities	(8,424)	57,405	117,919	(65,829)	(60,514)
Cash flows from investing activities	170,692	2,305	36,096	168,387	(33,791)
Net change in cash during the year	62,665	(16,207)	54,625	78,872	(70,832)
Net effect of currency exchange rate on cash	750	(3)	(729)	753	726
Cash, beginning of the year	45,075	61,285	7,389	(16,210)	53,896
Cash, end of the year	$ 108,490	$ 45,075	$ 61,285	$ 63,415	$ (16,210)

Cash flows used in operating activities increased by $23.7 million during the year ended December 31, 2021 compared to the corresponding period in 2020. The increase is mainly due to the payments made by PBT, to PBP after it became under the ownership of Kedrion for past and future research and development services totaling $45.8 million. This was partially offset by lower operating expenses mainly because the cost of operation for the different entities sold were only there for the portion of 2021, when they were under our ownership. In addition, those operating expenses were reduced while we were awaiting the outcome of the FDA review of the BLA.

Cash flows used in operating activities decreased by $23.5 million during the year ended December 31, 2020 compared to the same period in 2019. The decrease can be explained by a reduction in R&D expenses and by the receipt of grants from the Canadian government through programs to support businesses during the COVID-19 pandemic and a reduction in payments to suppliers compared to in the prior year when we settled payments in arrears following the receipt of funding during the quarter ended June 30, 2019. These decreases were partially offset by an increase in directors' and officers' insurance costs.

Cash flows used in financing activities increased by $65.8 million during the year ended December 31, 2021 compared to the corresponding period in 2020 since we did not receive any proceeds from the issuance of long-term debt in 2021 when in 2020 we received $31.5 million from the combined issuance of the second term loan with SALP and the secured convertible debentures. Similarly, in 2020 we had proceeds from the issuance of shares and warrants of $40.0 million while there were not equity financings in 2021.

Cash flows from financing activities decreased by $60.5 million during the year ended December 31, 2020 compared to the same period in 2019 as gross proceeds raised from equity financing declined by $78.8 million, since in 2020 we raised gross proceeds of $39.9 million in a private placement in November 2020 compared to the gross proceeds raised in the April 2019 private placements and in the rights offering in June 2019 of $75.0 million and $39.4 million respectively. The decline was partially offset by an increase of $11.7 million from financings where long-term debt was issued, mainly due to our draw down of $29.1 million in September 2020 on the non-revolving line of credit we had with SALP, representing the entire balance available, which resulted in the issuance of the second term loan. The second term loan bears an annual interest rate of 10% compounded monthly and payable quarterly and matures on April 23, 2024.

Cash flows from investing activities increased by $168.4 million during the year ended December 31, 2021 compared to the corresponding period in 2020 mainly due to the proceeds, net of selling costs of $170.1 million we received in connection with the divestiture of the plasma-derived therapeutics segment compared to the proceeds we received in 2020 in relation to the sale of our former bioseparations business.

Cash flows from investing activities decreased by $33.8 million during the year ended December 31, 2020 compared to the same period in 2019 as the proceeds we received from the sale of our bioseparations business, net of transaction

costs paid, in 2020, as adjustments to the initial purchase price and following the resolution of a tax matter was significantly lower to the initial payment received upon the closing of the sale, net of the cash divested and transaction costs by $36.0 million.

Research and Development, Patents and Licenses

For a discussion of our research and development activities, see "Item 4.B—Business Overview" and "Item 5.A—Operating Results." of the Annual Report.

Trend Information

Other than as disclosed elsewhere in this MD&A, we are not aware of any trends, uncertainties, demands, commitments or events for the period from January 1, 2021 to December 31, 2021 that are reasonably likely to have a material adverse effect on our net revenues, income, profitability, liquidity or capital resources, or that caused the disclosed financial information to be not necessarily indicative of future operating results or financial conditions. For a discussion of trends, see "Item 4.B.—Business overview," "Item 5.A.—Operating results," and "Item 5.B.—Liquidity and capital resources." of the Annual Report.

Off-balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet financing arrangements or any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Quantitative and Qualitative Disclosures About Market Risk

We have exposure to credit risk, liquidity risk and market risk. Our Board of Directors has the overall responsibility for the oversight of these risks and reviews our policies on an ongoing basis to ensure that these risks are appropriately managed.

i) Credit risk:

Credit risk is the risk of financial loss to our company if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and receivables. The carrying amount of the financial assets represents the maximum credit exposure.

Our exposure to credit risk is generally limited since we have limited revenues and thus limited accounts receivable. We mitigate credit risk through a credit risk assessment, when credit is granted and subsequently at each reporting period.

ii) Liquidity risk:

Liquidity risk is the risk that we will not be able to meet financial obligations as they come due. We manage our liquidity risk by continuously monitoring forecasts and actual cash flows. Our current liquidity situation is discussed in the liquidity and contractual obligation section of this MD&A.

iii) Market risk:

Market risk is the risk that changes in market prices, such as interest rates and foreign exchange rates, will affect our income or the value of its financial instruments.

a) Interest risk:

Our interest-bearing financial liabilities have fixed rates and as such there is limited exposure to changes in interest payments as a result of interest rate risk. In February 2022, our loans were repaid in full.

b) Foreign exchange risk:

We are exposed to the financial risk related to the fluctuation of foreign exchange rates. We have had operations and suppliers in the U.S. and the U.K. during the past years and therefore a portion of our expenses are in USD and in GBP. The majority of the revenues from the sale of products in 2021 and 2020, that are part of its discontinued operations were in USD which served to mitigate a portion of the U.S. foreign exchange risk relating to the expenditures. In 2021, the proceeds received from the divestment of our discontinued operations were in USD resulting in an increased exposure to the USD which is partially mitigated by expenditures denominated in USD from our continuing operations. Financial instruments that have exposed us to foreign exchange risk have been cash, receivables, trade and other payables, lease liabilities, license payment obligations. We manage foreign exchange risk by holding foreign currencies we receive to support forecasted cash outflows in foreign currencies.

Disclosure controls and procedures and internal controls over financial reporting

Evaluation of Disclosure Controls and Procedures

Our chief executive officer and chief financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of December 31, 2021, have concluded that, as of such date, our disclosure controls and procedures were not effective due to a material weakness in internal control over financial reporting, as described below.

Our disclosure controls and procedures are designed to provide reasonable assurance of achieving the desired control objectives. Our management recognizes that any control system, no matter how well designed and operated, is based upon certain judgments and assumptions and cannot provide absolute assurance that its objectives will be met. Similarly, an evaluation of controls cannot provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected.

Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) and for the assessment of the effectiveness of our internal control over financial reporting. Under the supervision and with the participation of our chief executive officer (principal executive officer and principal financial officer), management assessed our internal control over financial reporting based upon the framework in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, our management concluded that, as of December 31, 2021, our internal control over financial reporting was not effective because a material weakness in internal control over financial reporting existed as of that date, as described below.

Material Weakness in Internal Control over Financial Reporting

In connection with the preparation of our financial statements as of December 31, 2021 and 2020 and for the fiscal years ended December 31, 2021, 2020 and 2019, we identified a material weakness in our internal control over financial reporting. A material weakness was identified in our control environment related to an error in the carrying value of our held-for-sale assets. Specifically, the financial statements for the period ended September 30, 2021, contained a misstatement in the carrying value of PBT, which was classified as held for sale, which exceeded the fair value less costs to sell.

The deficiency in internal controls relates to our control regarding the accounting analysis of complex transactions, in this particular instance, the transactions relating to the sale of PBT, a transaction that was not in the ordinary course of business and required significant analysis and research by the Finance team, in addition to the extra workload required for presenting the divested or soon to be divested subsidiaries as discontinued operations. This situation, coupled with the fact that the third quarter financial reporting process was conducted without a Chief Financial Officer from September 3, 2021, exacerbated the resource challenge within the Finance team. Consequently, the accounting analysis for this complex transaction was incomplete and did not go through an exhaustive internal review.

Management and our audit committee concluded that it was appropriate to restate our previously issued financial results for the period ended September 30, 2021, as shown in the Summary of Consolidated Quarterly Results contained in Item 5A of the AIF.

Remediation Plan

The finance team has revisited the close timetable and will ensure any subsequent complex accounting matters are given priority from a timing perspective. In addition, an interim CFO has been hired to ensure the accounting and finance team has the appropriate depth and bandwidth to ensure that this type of error does not occur again. Testing to date of ICFR on complex transactions analysis has indicated that this control appears to be designed appropriately and was otherwise effective for the sample tested. We believe this deficiency occurred given the complexity and timing of the transaction in question.

Changes in Internal Control Over Financial Reporting

Except as described above under Material Weakness in Internal Controls over Financial Reporting and under Remediation Plan, there were no changes in our internal control over financial reporting that occurred during the period covered by this MD&A that have materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

Audited annual consolidated financial statements of Liminal BioSciences Inc.

December 31, 2021

Report of Independent Registered Public Accounting Firm

To the Board of Directors and the Shareholders of Liminal BioSciences Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Liminal BioSciences Inc. and its subsidiaries (together, the Company) as of December 31, 2021 and 2020, and the related consolidated statements of operations, statements of comprehensive income (loss), statements of changes in equity, and statements of cash flows for each of the three years in the period ended December 31, 2021, including 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 of December 31, 2021 and 2020, and its financial performance and its 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.

Substantial Doubt About the Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from continuing operations and has a net deficit, and negative cash outflows from operating activities that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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 Public Company Accounting Oversight Board (United States) (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 of these consolidated financial statements 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

PricewaterhouseCoopers LLP
PwC Centre, 354 Davis Road, Suite 600, Oakville, Ontario, Canada L6J 0C5
T: +1 905 815 6300, F: +1 905 815 6499

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.

/s/PricewaterhouseCoopers

Chartered Professional Accountants, Licensed Public Accountants

Oakville, Canada

March 17, 2022

We have served as the Company's auditor since 2019.

PricewaterhouseCoopers LLP
PwC Centre, 354 Davis Road, Suite 600, Oakville, Ontario, Canada L6J 0C5
T: +1 905 815 6300, F: +1 905 815 6499

LIMINAL BIOSCIENCES INC.
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION
(In thousands of Canadian dollars)

At December 31		**2021**		2020
ASSETS				
Current assets				
Cash	**$**	**108,490**	$	45,075
Accounts receivable and others (note 7)		**1,068**		4,081
Inventories (note 8)		**—**		9,377
Prepaids		**5,071**		14,486
Total current assets		**114,629**		73,019
Other long-term assets (note 9)		**362**		1,353
Capital assets (note 10)		**5,483**		18,791
Right-of-use assets (note 11)		**1,609**		8,557
Intangible assets (note 12)		**3,516**		15,492
Deferred tax assets (note 26)		**454**		572
Total assets	**$**	**126,053**	$	117,784
LIABILITIES				
Current liabilities				
Accounts payable and accrued liabilities (note 13)	**$**	**7,343**	$	16,835
Current portion of lease liabilities (note 14)		**7,194**		6,946
Current portion of provisions (note 15)		**3,957**		—
Total current liabilities		**18,494**		23,781
Long-term portion of lease liabilities (note 14)		**15,277**		26,506
Provisions (note 15)		**18,238**		—
Warrant liability (note 16)		**1,754**		11,640
Long-term debt (note 17)		**38,311**		40,532
Other long-term liabilities (note 18)		**98**		313
Total liabilities	**$**	**92,172**	$	102,772
EQUITY				
Share capital (note 19a)	**$**	**979,849**	$	977,261
Contributed surplus (note 19b)		**44,109**		39,877
Warrants (note 19c)		**95,856**		95,856
Accumulated other comprehensive loss		**(3,010)**		(3,030)
Accumulated other comprehensive income of disposal group held for sale		**—**		184
Deficit		**(1,074,167)**		(1,087,049)
Equity attributable to owners of the parent		**42,637**		23,099
Non-controlling interests (note 20)		**(8,756)**		(8,087)
Total equity		**33,881**		15,012
Total liabilities and equity	**$**	**126,053**	$	117,784

Going concern (note 1), Commitments (note 30), Subsequent event (note 33)
The accompanying notes are an integral part of the consolidated financial statements.

LIMINAL BIOSCIENCES INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands of Canadian dollars except for per share amounts)

Years ended December 31		**2021**		2020		2019
Revenues (note 22)	**$**	**643**	$	724	$	745
Expenses						
Research and development expenses		**18,347**		14,234		15,873
Administration expenses		**31,928**		32,619		37,661
Gain on foreign exchange		**(1,397)**		(35)		(756)
Finance costs (note 23a)		**6,330**		2,899		6,867
Loss (gain) on extinguishments of liabilities (note 17)		**(75)**		—		92,374
Change in fair value of financial instruments measured at fair value through profit or loss (note 16)		**(9,886)**		(850)		(1,140)
Impairment losses (note 25)		**341**		1,087		763
Loss from continuing operations before income taxes	**$**	**(44,945)**	$	(49,230)	$	(150,897)
Current income tax	**$**	**—**	$	(144)	$	(336)
Deferred income tax		**118**		(65)		111
Income tax expense (recovery) on continuing operations (note 26)		**118**		(209)		(225)
Net loss from continuing operations	**$**	**(45,063)**	$	(49,021)	$	(150,672)
Discontinued operations						
Gain on sale of subsidiaries, net of income taxes $nil (note 6)		**140,403**		3,380		26,346
Loss from discontinued operations, net of income taxes (note 6)		**(83,127)**		(73,116)		(82,427)
Total income (loss) from discontinued operations		**57,276**		(69,736)		(56,081)
Net income (loss)	**$**	**12,213**	$	(118,757)	$	(206,753)
Net income (loss) attributable to:						
Non-controlling interests - continuing operations (note 20)	**$**	**(669)**	$	(832)	$	(1,044)
Owners of the parent						
- Continuing operations		**(44,394)**		(48,189)		(149,628)
- Discontinued operations		**57,276**		(69,736)		(56,081)
	$	**12,882**	$	(117,925)	$	(205,709)
Net income (loss)	**$**	**12,213**	$	(118,757)	$	(206,753)
Income (Loss) per share attributable to the owners of the parent basic and diluted:						
From continuing operations	**$**	**(1.47)**	$	(1.97)	$	(9.32)
From discontinued operations		**1.90**		(2.85)		(3.49)
Total income (loss) per share	**$**	**0.43**	$	(4.83)	$	(12.81)
Weighted average number of outstanding shares (in thousands) (note 27)		**30,164**		24,438		16,062

The accompanying notes are an integral part of the consolidated financial statements.

LIMINAL BIOSCIENCES INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

Years ended December 31		**2021**		2020		2019
Net income (loss)	**$**	**12,213**	$	(118,757)	$	(206,753)
Other comprehensive (loss) income						
Items that may be subsequently reclassified to profit and loss:						
Exchange differences on translation of foreign operations from continuing operations		**20**		104		180
Exchange differences on translation of foreign operations from discontinued operations		**(140)**		149		(578)
Reclassification of exchange differences on translation of foreign operations sold to consolidated statement of operations (note 6)		**(44)**		—		(1,449)
Total other comprehensive (loss) income	**$**	**(164)**	$	253	$	(1,847)
Total comprehensive income (loss)	**$**	**12,049**	$	(118,504)	$	(208,600)
Total comprehensive income (loss) attributable to:						
Non-controlling interests	**$**	**(669)**	$	(832)	$	(1,044)
Owners of the parent						
- Continuing operations		**(44,374)**		(48,085)		(149,448)
- Discontinued operations		**57,092**		(69,587)		(58,108)
Total comprehensive income (loss)	**$**	**12,049**	$	(118,504)	$	(208,600)

The accompanying notes are an integral part of the consolidated financial statements.

LIMINAL BIOSCIENCES INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In thousands of Canadian dollars)

	Equity (deficiency) attributable to owners of the parent							
	Share capital $	Contributed surplus $	Warrants $	Foreign currency translation reserve $	Deficit $	Total $	Non-controlling interests $	Total equity (deficiency) $
Balance at January 1, 2019	583,117	21,923	95,296	(1,252)	(755,688)	(56,604)	(6,542)	(63,146)
Net loss	—	—	—	—	(205,709)	(205,709)	(1,044)	(206,753)
Foreign currency translation reserve	—	—	—	(398)	—	(398)	—	(398)
Reclassification of exchange differences on translation of foreign operations to consolidated statement of operations (note 6)	—	—	—	(1,449)	—	(1,449)	—	(1,449)
Issuance of shares (note 19a)	349,834	—	—	—	—	349,834	—	349,834
Share-based payments expense (note 19b)	—	22,030	—	—	—	22,030	—	22,030
Share-based compensation paid in cash (note 19b)	—	(421)	—	—	—	(421)	—	(421)
Issuance of warrants (note 19c)	—	—	560	—	—	560	—	560
Share and warrant issuance cost	—	—	—	—	(5,323)	(5,323)	—	(5,323)
Effect of changes in the ownership of a subsidiary and funding arrangements on non-controlling interests (note 20)	—	—	—	—	(331)	(331)	331	—
Balance at December 31, 2019	932,951	43,532	95,856	(3,099)	(967,051)	102,189	(7,255)	94,934
Net loss	—	—	—	—	(117,925)	(117,925)	(832)	(118,757)
Foreign currency translation reserve	—	—	—	253	—	253	—	253
Issuance of shares (note 19a)	31,755	—	—	—	—	31,755	—	31,755
Share-based payments expense (note 19b)	—	6,234	—	—	—	6,234	—	6,234
Exercise of stock options (note 19b)	167	(85)	—	—	—	82	—	82
Share-based compensation paid in cash (note 19b)	—	(40)	—	—	—	(40)	—	(40)
Shares issued pursuant to restricted share unit plan (note 19b)	9,764	(9,764)	—	—	—	—	—	—
Share issuance cost	—	—	—	—	(2,073)	(2,073)	—	(2,073)
Issuance of warrants (note 19c)	—	—	2,623	—	—	2,623	—	2,623
Exercise of warrants (note 19c)	2,624	—	(2,623)	—	—	1	—	1
Balance as of December 31, 2020	**977,261**	**39,877**	**95,856**	**(2,846)**	**(1,087,049)**	**23,099**	**(8,087)**	**15,012**
Net income	**—**	**—**	**—**	**—**	**12,882**	**12,882**	**(669)**	**12,213**
Foreign currency translation reserve	**—**	**—**	**—**	**(120)**	**—**	**(120)**	**—**	**(120)**
Reclassification of exchange differences on translation of foreign operations to consolidated statement of operations (note 6)	**—**	**—**	**—**	**(44)**	**—**	**(44)**	**—**	**(44)**
Share-based payments expense (note 19b)	**—**	**4,252**	**—**	**—**	**—**	**4,252**	**—**	**4,252**
Share-based compensation paid in cash (note 19b)	**—**	**(20)**	**—**	**—**	**—**	**(20)**	**—**	**(20)**
Shares issued upon conversion of debt (note 17)	**2,588**	**—**	**—**	**—**	**—**	**2,588**	**—**	**2,588**
Balance at December 31, 2021	**979,849**	**44,109**	**95,856**	**(3,010)**	**(1,074,167)**	**42,637**	**(8,756)**	**33,881**

The accompanying notes are an integral part of the consolidated financial statements

LIMINAL BIOSCIENCES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands of Canadian dollars)

Years ended December 31	2021	2020	2019
Cash flows used in operating activities			
Net loss from continuing operations during the year	**$ (45,063)**	$ (49,021)	$ (150,672)
Net income (loss) from discontinued operations during the year	**57,276**	(69,736)	(56,081)
Adjustments to reconcile net loss to cash flows used in operating activities:			
Finance costs and foreign exchange	**4,317**	8,307	12,809
Loss (gain) from disposition of capital and intangible assets	**(6)**	(15)	196
Non-cash issuance of warrants (note 16)	**—**	2,228	**—**
Gain on sale of subsidiaries (note 6)	**(140,403)**	(3,380)	(26,346)
Change in fair value of financial instruments measured at fair value through profit or loss (note 16)	**(9,886)**	(850)	(1,140)
Impairment losses (notes 6, 25)	**1,752**	20,859	12,366
Deferred income taxes (note 26)	**118**	—	87
Gain (loss) on extinguishments of liabilities (note 17)	**(75)**	(79)	92,374
Provision expense (note 15)	**22,367**	—	—
Share-based payments expense (note 19b)	**4,232**	6,194	21,609
Depreciation of capital assets (note 10)	**1,368**	2,779	3,734
Depreciation of right-of-use assets (note 11)	**1,013**	4,578	4,913
Amortization of intangible assets (note 12)	**1,963**	1,090	1,259
	(101,027)	(77,046)	(84,892)
Change in non-cash working capital items	**1,424**	1,129	(14,498)
	$ (99,603)	$ (75,917)	$ (99,390)
Cash flows from (used in) financing activities			
Proceeds from share issuances (with or without warrants) (note 19a)	**—**	39,960	118,785
Proceeds from long-term debt (with or without warrants) (note 17)	**—**	31,533	19,859
Repayment of principal on long-term debt (note 17)	**—**	(165)	(988)
Repayment of interest on long-term debt (note 17)	**(3,945)**	(1,879)	(3,540)
Exercise of options (note 19b)	**—**	82	**—**
Proceeds from exercise of pre-funded warrants (note 19c)	**—**	1	**—**
Payments of principal on lease liabilities (note 14)	**(3,241)**	(7,069)	(7,563)
Payment of interest on lease liabilities (note 14)	**(1,080)**	(2,098)	(1,767)
Debt, share and warrants issuance costs	**(158)**	(2,960)	(6,867)
	$ (8,424)	$ 57,405	$ 117,919
Cash flows from (used in) investing activities			
Additions to capital assets	**(293)**	(966)	(2,741)
Additions to intangible assets	**(170)**	(1,080)	(1,703)
Proceeds from sale of discontinued operations business (note 6)	**173,357**	4,555	43,958
Transaction costs paid relating to the sale of discontinued operations business	**(2,492)**	(787)	(4,228)
Proceeds from disposal of capital assets	**52**	133	**—**
Release of restricted cash	**165**	—	65
Interest received	**73**	450	745
	$ 170,692	$ 2,305	$ 36,096
Net change in cash and cash equivalents during the year	**62,665**	(16,207)	54,625
Net effect of currency exchange rate on cash and cash equivalents	**750**	(3)	(729)
Cash and cash equivalents, beginning of year	**45,075**	61,285	7,389
Cash and cash equivalents, end of year	**$ 108,490**	$ 45,075	$ 61,285
Comprising of:			
Cash	**108,490**	45,075	41,761
Cash equivalents	**—**	—	19,524
	$ 108,490	$ 45,075	$ 61,285

Cash flows from discontinued operations presented in note 6

The accompanying notes are an integral part of the consolidated financial statements.

1. Nature of operations and going concern

Liminal BioSciences Inc. or Liminal, or the Company, is incorporated under the Canada Business Corporations Act and is a publicly traded clinical stage biopharmaceutical company (Nasdaq symbol: LMNL) focused on developing distinctive novel small molecule therapeutics for inflammatory, fibrotic and metabolic diseases using our drug discovery platform and data driven approach. Our lead small molecule product candidate, fezagepras, has completed a Phase 1 multi-ascending dose, or MAD, clinical trial and we anticipate conducting a comparative Phase 1a single ascending dose clinical trial to provide comparative data to support our development plan. In addition, the Company is currently developing a selective G-protein-coupled receptor 84, or GPR84 antagonist candidate and an oral, selective OXER1 antagonist candidate. The GPR84 and OXER1 antagonist programs are currently at the preclinical stage.

The Company previously operated a segment devoted to the development of plasma-derived therapeutics, leveraging Liminal's experience in bioseparation technologies used to isolate and purify biopharmaceuticals from human plasma and received approval, from the U.S. Food and Drug Administration or FDA in June 2021 for its plasma-derived product Ryplazim® (plasminogen) or Ryplazim®, a highly purified glu-plasminogen derived from human plasma that acts as a plasminogen replacement therapy for patients deficient in plasminogen protein. The Company has completed the divestment of this segment in October 2021. These activities are also presented as discontinued operations in the audited annual consolidated financial statements for the years ended December 31, 2021 and 2020 (note 6).

The Company's registered office is located at 231 Dundas Street East, Belleville, Ontario, K8N 1E2 and its principal executive office is located at 440, Boul. Armand-Frappier, suite 300, Laval, Québec, Canada, H7V 4B4. Liminal has active business operations in Canada and the United Kingdom.

Structured Alpha LP or SALP has been Liminal's majority and controlling shareholder since the debt restructuring on April 23, 2019 (note 17) and is considered Liminal's parent entity for accounting purposes. Thomvest Asset Management Ltd., or Thomvest, is the general partner of SALP and the ultimate controlling parent, for accounting purposes, of Liminal is The 2003 TIL Settlement.

The consolidated financial statements for the year ended December 31, 2021 have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting standards Board, or IASB, on a going concern basis, which presumes the Company will continue its operations for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the ordinary course of business.

During the year ended December 31, 2021, the Company incurred a net loss from continuing operations of $45.1 million ($49.0 million for the year ended December 31, 2020) and had negative operating cash flows, including continuing and discontinued operations, of $99.6 million ($75.9 million for the year ended December 31, 2020). At December 31, 2021, the Company had an accumulated deficit of $1,074.2 million ($1,087.0 million at December 31, 2020) and a working capital of $96.1 million ($49.2 million at December 31, 2020). The December 31, 2021 working capital position reflects the proceeds the Company received as a result of the various transactions it concluded as part of the divestment of the plasma-derived therapeutics segment (note 6). In February 2022, the Company used $39.1 million of the proceeds from the divestment to repay the full amount of its long-term debt (note 33).

Considering Liminal's main activities continue to be related to the preclinical and clinical stage, the Company's cash runway is dependent on the research programs currently underway, the pace of their progression and the results they render, as well as those planned to be undertaken in the short term. As such, there is always a degree of uncertainty in regards to the outcome or cost of those programs. The cash runway is also dependent on decisions the Company makes in terms of managing its capital, including raising capital through the issuance of debt and equity or repaying financial obligations before their maturity, and the Company's ability to conclude such financing transactions at an acceptable cost. As such, there is uncertainty whether the Company's current financial position will be sufficient to fund its operations for at least the next 12 months and it is likely that additional sources of funding will be required during this time. Additional external financing may include public or private equity offerings, debt financings, strategic collaborations, alliances and licensing arrangements, grant funding or other sources.

Despite the Company's efforts to obtain the necessary funding and improve profitability of its operations, there can be no assurance of its success in doing so, especially with respect to its access to further funding on acceptable terms, if at all.

These circumstances indicate the existence of a material uncertainty that may cast substantial doubt about the Company's ability to continue as a going concern. If the Company is unable to secure additional capital, it may be required to curtail its research and development initiatives and take additional measures to reduce costs in order to conserve its cash in amounts sufficient to sustain operations and meet its obligations. These measures could cause significant delays in the Company's preclinical, clinical and regulatory efforts, which are critical to the realization of its business plan. These consolidated financial statements do not include any adjustments to the amounts and classification of assets and liabilities that might be necessary should the Company be unable to continue as a going concern. Such adjustments could be material.

(In thousands of Canadian dollars, except for per share amounts)

2. Material accounting policies

Statement of compliance

These audited annual consolidated financial statements for the year ended December 31, 2021, or consolidated financial statements, have been prepared in accordance with IFRS as issued by the IASB and were approved by the Board of Directors on March 17, 2022.

Functional and presentation currency

The consolidated financial statements are presented in Canadian dollars, ($ or CAD) which is also the Company's functional currency. The use of other currencies will be specified.

Basis of consolidation

The consolidated financial statements include the accounts of Liminal BioSciences Inc., and those of its subsidiaries. The Company's subsidiaries at December 31, 2021, 2020 and 2019 are as follows:

Name of subsidiary	Segment activity	Place of incorporation and operation	Proportion of ownership interest held by group		
			2021	2020	2019
Fairhaven Pharmaceuticals Inc.	Small molecule therapeutics	Quebec, Canada	**100%**	100%	nil
Liminal R&D BioSciences Inc.	Small molecule therapeutics	Quebec, Canada	**100%**	100%	100%
Liminal BioSciences Holdings Limited	Small molecule therapeutics	Cambridge, United Kingdom	**100%**	100%	100%
Liminal BioSciences Limited	Small molecule therapeutics	Cambridge, United Kingdom	**100%**	100%	100%
Prometic Pharma SMT B.V	Small molecule therapeutics	Amsterdam, Netherlands	**100%**	100%	N/A
Prometic Bioproduction Inc.	Plasma-derived therapeutics	Quebec, Canada	**nil***	100%	100%
Prometic Plasma Resources Inc.	Plasma-derived therapeutics	Winnipeg, Canada	**nil***	100%	100%
Telesta Therapeutics Inc.	Plasma-derived therapeutics	Quebec, Canada	**100%**	100%	100%
NantPro Biosciences, LLC	Plasma-derived therapeutics	Delaware, U.S.	**73%**	73%	73%
Prometic Biotherapeutics Inc.	Plasma-derived therapeutics	Delaware, U.S.	**nil***	100%	100%
Prometic Plasma Resources USA Inc.	Plasma-derived therapeutics	Delaware, U.S.	**nil***	100%	100%
Prometic Biotherapeutics Ltd	Plasma-derived therapeutics	Cambridge, United Kingdom	**100%**	100%	100%
Prometic Biotherapeutics B.V.	Plasma-derived therapeutics	Amsterdam, Netherlands	**100%**	100%	N/A
Pathogen Removal and Diagnostic Technologies Inc.	Corporate	Delaware, U.S.	**77%**	77%	77%

* Entity sold in 2021 as part of our divestment of the plasma-derived therapeutics segment.

The Company consolidates investees when, based on the evaluation of the substance of the relationship with the Company, it concludes that it controls the investees. The financial statements of the subsidiaries are prepared for the same reporting period as the parent Company, using consistent accounting policies. All intra-group transactions, balances, income and expenses are eliminated in full upon consolidation.

When a subsidiary is not wholly-owned the Company recognizes the non-controlling interests' share of the net assets and results of operations in the subsidiary.

Financial instruments

Recognition and derecognition

Financial instruments are recognized in the consolidated statement of financial position when the Company becomes a party to the contractual obligations of the instrument. On initial recognition, financial instruments are recognized at their fair value plus, in the case of financial instruments not at fair value through profit or loss ("FVPL"), transaction costs that are directly attributable to the acquisition or issue of financial instruments. Financial assets are subsequently derecognized when payment is received in cash or other financial assets or if the debtor is discharged of its liability.

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing liability is replaced by another from the same creditor on substantially different terms, or the terms of the liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in the consolidated statement of operations.

Classification

Subsequent to initial recognition, financial instruments are measured according to the category to which they are classified. Financial instruments are measured at amortized cost unless they are classified as fair value through other comprehensive income, or FVOCI, classified as FVPL or designated as FVPL, in which case they are subsequently measured at fair value.

The classification of financial asset debt instruments is driven by the Company's business model for managing the financial assets and their contractual cash flow characteristics. Assets that are held to collect contractual cash flows where those cash flows represent solely payments of principal and interest are measured at amortized cost. Equity instruments that are held for trading (including all equity derivative instruments) are classified as FVPL. Financial liabilities are measured at amortized cost, unless they are required to be measured at FVPL (such as instruments held for trading or derivatives) or the Company has opted to measure them at FVPL.

The Company classifies cash, trade receivables, other receivables, restricted cash, and long-term deposits as financial assets measured at amortized cost and trade payables, wages and benefits payable, royalty payment obligations and long-term debt as financial liabilities measured at amortized cost.

The Company classifies the warrant liability as a financial liability at FVPL for which the variation in fair value is recorded in consolidated statement of operations.

Inventories

Inventories of raw materials and finished goods are valued at the lower of cost and net realizable value. Cost is determined on a first in, first out basis. The cost of manufactured inventories comprises all costs that are directly attributable to the manufacturing process, such as raw materials, direct labour and manufacturing overhead based on normal operating capacity. Net realizable value is the estimated selling price in the ordinary course of business and the estimated selling costs except for raw materials for which it is determined using replacement cost.

Capital assets

Capital assets are recorded at cost less any government assistance, accumulated depreciation and accumulated impairment losses, if any. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets, as described below.

Capital asset	Period
Buildings and improvements	20 years
Leasehold improvements	The lower of the lease term and the useful life
Production and laboratory equipment	5 - 20 years
Furniture	5 - 10 years
Computer equipment	3 - 5 years

Government assistance

Government assistance programs, including investment tax credits on research and development expenses and salary and rent subsidies are reflected as reductions to the cost of the assets or to the expenses to which they relate and are recognized when there is reasonable assurance that the assistance will be received and all attached conditions are complied with.

Right-of-use assets

The Company recognizes a right-of-use, or ROU, asset at the commencement date of a lease which is when the date at which the underlying asset is available for use. Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. Unless the Company is reasonably certain to obtain ownership of the leased asset at the end of the lease term, the recognized right-of-use asset is depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

Intangible assets

Intangible assets are carried at cost less accumulated amortization. Amortization commences when the intangible asset is available for use and is calculated over the estimated useful lives of the intangible assets acquired using the straight-line method. The maximum period used for each category of intangible asset are presented in the table below.

Intangible asset	Period
Licenses and other rights	30 years
Donor lists	10 years
Patents	20 years
Software	5 years

Impairment of long-lived assets

At the end of each reporting period, the Company reviews the carrying amounts of its capital, ROU and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If impairment indicators exist, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss, if any. For intangible assets not yet available for use, an impairment test is performed annually at November 30, until amortization commences, whether or not there are impairment indicators.

The recoverable amount is the higher of the fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

An impairment loss is recognized when the carrying amount of an asset or a cash-generating unit, or CGU, exceeds its recoverable amount by the amount of this excess. An impairment loss is recognized immediately in profit or loss in the period during which the loss is incurred. An impairment loss can be subsequently reversed, if certain conditions are met and the amount of the reversal will not exceed the carrying amount that would have been determined had an impairment loss not been recognized for the asset or CGU in prior periods. A reversal of an impairment loss is recognized immediately in profit or loss.

Lease liabilities

At the commencement date of a lease, the Company recognizes a lease liability measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Company and payments of penalties for terminating a lease, if the lease term reflects the Company exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognized as expense in the period on which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Company uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of a lease liability is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of a lease liability is remeasured if there is a modification, a change in the lease term, a change in the in-substance fixed lease payments or a change in the assessment whether the underlying asset will be purchased.

The Company applies the short-term lease recognition exemption to leases of 12 months or less, as well as the lease of low-value assets recognition exemption. Lease payments on short-term leases and leases of low-value assets are recognized as expense on a straight-line basis over the lease term.

The Company has elected, for the class of assets related to the lease of building space, not to separate non-lease components from lease components, and instead account for each lease component and any associated non-lease components as a single lease component.

Provisions

If changes in circumstances render a contract to be onerous, meaning the unavoidable cost of meeting the contract exceeds the economic benefits expected under it, the Company recognizes the present value of the obligations as a provision. Before a separate provision for an onerous contract is established, an entity recognizes any impairment loss that has occurred on assets dedicated to that contract. The amount recognized as a provision is the best estimate of the cash disbursements required to settle the present obligation at the end of a reporting period and as such, a provision will change if the estimate changes. The discount rate used is the pre-tax rate that reflects the market assessment of the time value of money and the risks specific to the liability.

Revenue recognition

Sale of goods

Revenue from sale of goods is recognized when the terms of a contract with a customer have been satisfied. This occurs when:

- The control over the product has been transferred to the customer; and
- The product is received by the customer or transfer of title to the customer occurs upon shipment.

Following delivery, the customer bears the risks of obsolescence and loss in relation to the goods. Revenue is recognized based on the price specified in the contract, net of estimated sales discounts and returns. Revenue from the sale of goods is presented as part of the results from discontinued operations.

Royalty revenue

Royalty revenues are recognized once the sale of products to which the royalties gives rise occurs.

Rental revenue

The Company accounts for the lease or sub-lease with its tenant as an operating lease when the Company has not transferred substantially all of the risks and benefits of ownership of its property or leased property. Revenue recognition under an operating lease commences when the tenant has a right to use the leased asset, and the total amount of contractual rent to be received from the operating lease is recognized on a straight-line basis over the term of the lease. Rental revenue also includes recoveries of operating expenses and property taxes.

Research and development expenses

Expenditure on research activities is recognized as an expense in the period during which it is incurred. An internally generated intangible asset arising from development (or from the development phase of an internal project) is recognized if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditures attributable to the intangible asset during its development.

To date, the Company has not capitalized any development costs.

Foreign currency translation

Transactions and balances

Transactions in foreign currencies are initially recorded by the Company and its entities at their respective functional currency rates prevailing at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date. All differences are taken to the consolidated statement of operations. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates when the initial transactions took place.

Group companies

The assets and liabilities of foreign operations are translated into Canadian dollars at the rate of exchange prevailing at the reporting date and their statements of operations are translated at exchange rates prevailing at the dates of the transactions. The exchange differences arising on the translation are recognized in other comprehensive loss. On disposal of a foreign operation, the component of other comprehensive loss relating to that particular foreign operation is reclassified from the consolidated statement of comprehensive loss to the consolidated statement of operations as part of the gain or loss on the disposal of the foreign operation.

Share-based payments

The fair value of stock options granted by the Company is determined at the grant date using the Black-Scholes option pricing model and is expensed over the vesting period of the options. Grants with graded vesting are considered to be multiple awards for fair value measurement. An estimate of the number of awards that are expected to be forfeited is also made at the time of grant and revised periodically if actual forfeitures differ from those estimates.

The Company also made use of a restricted share unit plan as part of its long-term incentive plan up until the end of 2020. The fair value of Restricted Share Units, or RSU, is determined using the market value of the Company's shares on the grant date. The expense associated with RSU awards that vest over time are recognized over the vesting period. When the vesting of RSU is dependent on meeting performance targets as well as a service requirement, the Company will estimate the outcome of the performance targets to determine the expense to recognize over the vesting period, and revise those estimates until the final outcome is determined.

An estimate of the number of awards that are expected to be forfeited is also made at the time of grant and revised periodically if actual forfeitures differ from those estimates.

The Company's policy is to issue new shares upon the exercise of stock options and the release of RSU for which conditions have been met.

Assets held for sale and discontinued operations

The Company classifies non-current assets and disposal groups as held for sale at the end of a given reporting period if their carrying amounts will be recovered principally through a sale rather than through continuing use. Such non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and their fair value less cost to sell. Costs to sell are the incremental costs directly attributable to the sale, excluding finance costs and income tax expense. Such assets are only presented as held for sale when the sale is highly probable and the assets or disposal group are available for immediate sale in their present condition. Actions required to complete the sale should indicate that it is unlikely that significant changes to the sale will be made or that the sale will be withdrawn. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Capital assets included as part of the assets held for sale are not depreciated once classified as held for sale. Assets and liabilities classified as held for sale are presented separately as current items in the consolidated statement of financial position.

The results of discontinued operations are presented net of tax in the consolidated statement of operations. Incremental cost related to the disposition and income taxes are allocated to discontinued operations. The discontinued operations also include the gain or loss on the disposal, which will also include the reclassification of historical exchange differences on translation of foreign operations sold. The results of discontinued operations exclude the allocation of the corporate finance costs and general corporate overhead in the form of management fees if the costs will continue to be incurred by Liminal following the disposition. The prior period results from discontinued operations are reclassified and presented in the consolidated statements of operations.

Share and warrant issue expenses

The Company records share and warrant issue expenses as an increase to the deficit.

3. Significant accounting judgements and estimation uncertainty

The preparation of these consolidated financial statements requires the use of judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities and the accompanying disclosures. The uncertainty that is often inherent in estimates and assumptions could result in material adjustments to assets or liabilities affected in future periods. The significant judgments made and estimates used in the preparation of these consolidated financial statements are explained below.

Significant judgments

Going concern - In assessing whether the going concern assumption is appropriate and whether there are material uncertainties that may cast significant doubt about the Company's ability to continue as a going concern, management must estimate future cash flows for a period of at least twelve months following the end of the reporting period by considering relevant available information about the future. Management has considered a wide range of factors relating to expected cash inflows such as whether the Company will earn other significant revenues, what will be the next steps in its research and development programs and the related expenditures as well as the financing strategy it would like to pursue and the potential sources of debt and equity financing available to it in case further financing is desired. Management has also estimated expected cash outflows such as operating and capital expenditures and debt repayment schedules. These cash flow estimates are subject to uncertainty.

Functional currency – The functional currency of foreign subsidiaries is reviewed on an ongoing basis to assess if changes in the underlying transactions, events and conditions have resulted in a change. This assessment is also performed for new subsidiaries. When assessing the functional currency of a foreign subsidiary, management's judgment is applied in order to determine, amongst other things, the primary economic environment in which an entity operates, the currency in which the activities are funded and the degree of autonomy of the foreign subsidiary from the reporting entity in its operations and financially. Judgment is also applied in determining whether the inter-company loans denominated in foreign currencies form part of the parent Company's net investment in the foreign subsidiary. Considering such loans as part of the net investment in the foreign subsidiary results in foreign currency translation gains or losses from the translation of these loans being recorded in other comprehensive loss instead of the consolidated statement of operations. During the year ended December 31, 2020, the functional currency of the Pathogen Removal and Diagnostic Technologies Inc., or PRDT, subsidiary changed from GBP to USD.

Share-based compensation - On March 23, 2020, the board of directors of the Company approved a plan to seek shareholder approval to modify the exercise price of certain stock options as disclosed in note 19b. In order to determine when the expense related to this modification is recognized in the consolidated statement of operations, management evaluated the timing of notification to option holders, the timing and method of determining the exercise price and the service period. Management further considered whether the holders of the stock options had sufficient understanding of the terms and conditions of the potentially revised awards, the degree of certainty of the approval for the repricing and whether the service period for earning the rights to the awards had commenced. Management concluded that the definition of the grant date was not met but that the service period had commenced and therefore a preliminary calculation of the incremental fair value of the repricing of the awards was performed using assumptions as of March 31, 2020. On May 26, 2020, the conditions for a grant date were met and the options exercise price was revised to $15.21 and a final calculation to determine the incremental fair value of the repriced options was performed.

Estimates and assumptions

COVID-19 – The negative impact of the COVID-19 pandemic on the financial statements for years ended December 31, 2021 and 2020 has been limited. During a portion of those two years, however, the Company was eligible for salary and rent subsidy programs from the Government of Canada under which it submitted claims (note 22). As of the date of these consolidated financial statements, there are no subsidy programs to which the Company is eligible. Consistent within the global biopharmaceutical sector, some clinical programs may have been and may be impacted by the shift of resources within hospitals and contract research organizations, or CRO, to COVID-19 and related matters, resulting in potential delays to recruitment or site initiation on our clinical and preclinical programs, and potentially causing an adjustment of certain development timelines and activities. The partial disruption caused by COVID-19 may continue to impact the Company's operations, workforce and overall business by delaying the progress of our research and development programs, regulatory submissions and reviews, and business and corporate development activities. There is uncertainty as to the duration of the COVID-19 pandemic and related government restrictions, including travel bans, the impact on our workforce, the availability of healthy subjects and patients for the conduct of clinical trials and its impact on the global economy. The effects of the COVID-19 pandemic continue to be fluid.

Fair value of financial instruments – The individual fair values attributed to the different components of a financing transaction, are determined using valuation techniques. Management uses judgment to select the methods used to determine certain inputs/assumptions used in the models and the models used to perform the fair value calculations in order to determine, 1) the values attributed to each component of a transaction at the time of their issuance, 2) the fair value measurements for certain instruments that require subsequent measurement at fair value on a recurring basis and 3) the fair value of financial instruments subsequently carried at amortized cost. When the determination of the fair value of a new loan is required, discounted cash flow techniques which includes inputs that are not based on observable market data and inputs that are derived from observable market data are used.

When determining the appropriate discount rates to use, Management seeks comparable interest rates, where available. If unavailable, it uses those considered appropriate for the risk profile of a Company in the industry.

In determining the fair value of the warrants issued in November 2020 (note 16), which are presented as a warrant liability in the consolidated statement of financial position and considered to be a level 3 measurement, the Company made assumptions on unobservable inputs used in the valuation model that have an important impact on the resulting fair value computed.

Notably, the Company estimated the timing and the amounts of equity financings it expects to complete before the expiry of those warrants. The fair value computed could be higher if the actual equity financing needs of the Company are higher than those expected. The Company also estimated the future volatility of the common shares of Liminal for the contractual life of the warrants. To do so, the Company used the historical volatility of its own shares and of comparable companies in the same industry as a starting basis for this estimate and also considered whether there are factors that would indicate that the historical volatility is not indicative of the future. In addition, the Company applied an illiquidity discount rate on the resulting Black-Scholes pricing model to reflect that the November 2020 warrants are not publicly traded instruments and therefore the ability to sell them is limited. In establishing the illiquidity discount rate, the Company considered the remaining life of the warrants and the volatility assumption for the underlying shares. Had the Company selected a higher volatility rate and/or a lower illiquidity discount rate, the fair value of the warrant liability would have been higher.

The fair value estimates could be significantly different because of the use of judgment and the inherent uncertainty in estimating the fair value of these instruments that are not quoted in an active market.

Uncertainty over income tax treatments - R&D tax credits for the current and prior periods are measured at the amount the Company expects to recover, based on its best estimate and judgment, of the amounts it expects to receive from the tax authorities as at the reporting date, either in the form of income tax refunds or refundable grants. However, there are uncertainties as to the interpretation of the tax legislation and regulations, in particular regarding what constitutes eligible R&D activities and expenditures, as well as the amount and timing of recovery of these tax credits. In order to determine whether the expenses it incurs are eligible for R&D tax credits, the Company must use judgment in determining whether its complex R&D activities qualify for available tax credits, which makes the recovery of tax credits uncertain. As a result, there may be a significant difference between the estimated timing and amount recognized in the consolidated financial statements in respect of tax credits receivable and the actual amount of tax credits received as a result of the tax administrations' review of matters that were subject to interpretation. These uncertainties, relating to entities the Company has sold may still affect Liminal as certain indemnification obligations may be called upon, subject to contractual limitations, when these entities may be subjected to the tax administrations reviews for taxation periods prior to the sale. The amounts recognized in the consolidated financial statements are based on the best estimates of the Company and in its best possible judgment, as noted above.

Assessing the recoverable amount of long-lived assets - The Company evaluates the recoverable value of long-lived assets when indicators of impairment arise or as part of the annual impairment test, if they are intangible assets not yet available for use. The recoverable value is the higher of the value in use and the fair value less costs of disposal, or FVLCD.

Long-lived assets include capital assets, ROU assets and intangible assets such as patents and licenses and other rights. Some of these rights are considered not available for use until regulatory approval to commercialize the product candidate is obtained. When calculating the net recoverable amounts for the impairments on continuing operations (note 24) and discontinued operations (note 6), management made estimates and assumptions regarding the outcome of certain future events, future cash flows and their timing.

When determining the FVLCD for its Ryplazim® CGU (note 6), significant estimates made included amongst others, the outcome of the exercise it had undertaken in evaluating the potential alternatives for the Ryplazim® CGU, including the probability of completing a sale or closing those activities; the operating cash outflows to support those operations until one of the alternative strategies was executed; the outcome of the FDA review of the Company's Biological License Application, or BLA for its Ryplazim® product candidate and the timing of completion of the review; if the Company would be able to benefit from the monetization of a Priority Review Voucher, if received, and what would be the amount received upon its monetization; and whether some assets, liabilities and commitments could potentially be excluded from the activities sold and for those commitments that could be retained, the possibility of reducing those commitments and what would be their settlement amount. A 10% change in the probability weighted terminal value would have impacted the impairment recorded on the Ryplazim® CGU by $ 3,638.

When calculating the FVLCD of an asset or a group of assets for which selling price information for comparable assets are not readily available, management also must make assumptions regarding the value it may recuperate from its sale.

Share-based compensation - To determine the fair value of stock options on a given date, the Company must determine the assumptions that will be used as inputs to the Black-Scholes option pricing model, including the assumption regarding the future volatility of the common shares of Liminal for the expected life of the stock options. The Company uses the historical volatility as a starting basis for the estimate and also considers whether there are factors that would indicate that the past volatility is not indicative of the future volatility. In making this assessment, management considers changes in the Company's activities and other factors such as a significant share consolidation. As the volatility is an assumption that has a significant impact on the calculated value of a stock option, the impact of this estimate can significantly impact the share-based payment expense over the vesting period of an award.

Valuation of deferred income tax assets – To determine the extent to which deferred income tax assets can be recognized, management estimates the amount of probable future taxable profits that will be available against which deductible temporary differences and unused tax losses can be utilized. Management exercises judgment to determine the extent to which realization of future taxable benefits is probable, considering the history of taxable profits, budgets and forecasts and availability of tax strategies.

Estimates and assumptions about future events and their effects cannot be determined with certainty and therefore require the exercise of judgment. As of the date of issuance of these financial statements, the Company is not aware of any specific event or circumstance that would require it to update its estimates, assumptions and judgments or revise the carrying value of its assets or liabilities, and the Company is unable to estimate the potential impact on its future business or its financial results as of the date of this filing. These estimates may change as new events occur and additional information is obtained and changes in those estimates are recognized in the consolidated financial statements as soon as they become known.

4. Change in standards, interpretations and accounting policies

a) Adoption of new accounting standards

The accounting policies used in these annual consolidated financial statements are consistent with those applied by the Company in its December 31, 2020 and 2019 audited annual consolidated financial statements except for the amendments to certain accounting standards which are relevant to the Company and were adopted by the Company since January 1, 2020 as described below.

Amendments to *IFRS 3, Business Combinations or IFRS 3*

The amendments to IFRS 3 clarifies the definition of a business and includes an optional concentration test to determine whether an acquired set of activities and assets is a business. These amendments were adopted on January 1, 2020 and are applied prospectively to acquisitions made on or after this date.

Amendment to *IFRS 16, Leases or* IFRS 16 for COVID-19-Related Rent Concessions - IFRS 16 has been revised to incorporate an amendment issued by the IASB in May 2020. The amendment permits lessees not to assess whether particular COVID-19-related rent concessions are lease modifications and, instead, account for those rent concessions as if they were not lease modifications. In addition, the amendment to IFRS 16 provides specific disclosure requirements regarding COVID-19-related rent concessions. The amendment was adopted as of January 1, 2021 and had no impact on the financial statements for the year ended December 31, 2021 since the Company has not benefited from COVID-19 related rent concessions.

Amendment to *IAS 1, Presentation of Financial statements* or IAS 1 - IAS 1 has been revised to require the disclosure of material accounting policies rather than significant accounting policies and provides guidance to apply materiality judgments to accounting policy disclosure. The Company early adopted these amendments, and consequential amendments to other standards, for its annual audited financial statements for the year ended December 31, 2021 resulting in a reduction of its accounting policy disclosure in note 2 - Material accounting policies.

b) New Standards and interpretations not yet adopted

The IFRS accounting standards, amendments, and interpretations that the Company reasonably expects may have a material impact on the disclosures, the financial position or results of operations of the Company when applied at a future date are as follows:

Amendments to *IAS 37, Provisions, Contingent Liabilities and Contingent Assets* (IAS 37) - IAS 37 has been revised to specify which costs an entity includes in determining the cost of fulfilling a contract for the purpose of assessing whether the contract is onerous. The amendments are effective for annual reporting periods beginning on or after January 1, 2022. The cumulative effect of initially applying the amendment, if any, will be recorded as an adjustment to the opening retained earnings and comparative periods will not be restated. Earlier application is permitted. The Company has determined that the adoption of this modification as of January 1, 2022 will not have an impact on the provision presently recorded at December 31, 2021.

Amendment to *IFRS 9 Financial Instruments (*IFRS 9) - IFRS 9 has been revised to clarify the fees an entity includes when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability. The amendment is effective for annual reporting periods beginning on or after January 1, 2022 and is to be applied to financial liabilities that are modified after the date of adoption. Earlier application is permitted.

Amendments to I*AS 8, Accounting policies, Changes in Accounting Estimates and Errors* (IAS 8) and IAS 1, Presentation of Financial Statements (IAS 1) - The amendments to IAS 8 introduce a definition of accounting estimates and provide clarifications to distinguish accounting policies from accounting estimates. In addition, IAS 1 has been revised to clarify how to classify debt and other liabilities as current or non-current. The amendments help to determine whether, in the statement of financial position, debt and other liabilities with an uncertain settlement date should be classified as current (due or potentially due to be settled within one year) or non-current. The amendments also include clarifying the classification requirements for debt an entity might settle by converting it into equity. The amendments are applicable retrospectively and is effective for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted.

Amendments to IAS 12, *Income taxes* (IAS 12) - The amendments to IAS 12 clarify the accounting for deferred tax assets or liabilities arising from a single transaction such as leases, namely that the scope of the recognition exemption no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences. The amendments are effective for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted.

The Company is evaluating the impact of the amendments to IAS 8, IAS 1 and IAS 12 on its consolidated financial statements.

5. Acquisition of Fairhaven Pharmaceuticals Inc.

Pursuant to a share purchase agreement, or SPA, dated July 17, 2020, the Company acquired 100% of the issued and outstanding common shares of Fairhaven Pharmaceuticals Inc., or Fairhaven, a company with a preclinical research program of small molecule antagonists. As consideration for the acquisition, the Company issued 202,308 common shares. Upon achievement of certain pre-determined research and development milestones prior to July 17, 2025, the Company may be obligated to make additional payments in the form of common shares totalling up to $4,374. The number of shares to be issued, if any, upon completion of a milestone, will be calculated using the five-trading day volume weighted average trading price, or VWAP of the Company's common shares on Nasdaq prior to the achievement of such milestone events.

As Fairhaven did not meet the definition of a business under IFRS 3, the acquisition has been accounted for as an asset acquisition, the total cost of the net assets acquired being the fair value of the consideration paid. The shares issued were recorded at a fair value of $3,441, based on the closing price of Liminal's common shares at the date of the transaction. The transaction costs of $308 incurred by the Company were capitalized and allocated to the net assets acquired. Any future milestone payments would be recognized if and when the triggering event occurs.

(In thousands of Canadian dollars, except for per share amounts)

The consideration paid and the allocation thereof to the net assets acquired were as follows:

Cost of acquisition		
Fair value of common shares issued	$	3,441
Cash payment		50
Total consideration paid	$	3,491
Transaction fees		308
Total cost of acquisition	$	3,799

Net assets acquired		
Current assets	$	217
Licenses and other rights (note 12)		3,796
Current liabilities		(214)
Total net assets acquired	$	3,799

6. Discontinued operations

The Company has entered into several share purchase agreement(s), or SPA(s), in 2019 and in 2021 for the sale of businesses that were no longer part of its core strategy.

2019 and 2020

On November 25, 2019, the Company sold two subsidiaries in its bioseparations segment, Prometic Bioseparations Ltd and Prometic Manufacturing Inc., to Gamma Biosciences GP LLC, representing the majority of its bioseparations operations and all of the bioseparations revenues.

As of December 31, 2019, the Company had received $50,752 in cash and recorded an amount receivable of $1,175. This amount was received in the beginning of 2020 and then later during the year, an additional amount of $3,380 in proceeds was recorded and received upon resolution of a taxation matter. In the event the operations sold achieve certain yearly performance criteria during the four years following the transaction, additional cash payments will be received; for the two first years following the sale, the performance criteria were not met. As of the date of these consolidated financial statements, the aggregate cash consideration that could still be earned until the end of 2023 is $13,724 (£8,000,000). At the time of the sale and since then the fair value of the contingent consideration available has been evaluated as $nil as its receipt is dependent on future target achievement that is out of the Company's influence and is primarily dependent on the growth of the operations sold.

2021

The Company entered into two SPAs with Kedrion S.p.A., or Kedrion, during the quarter ended June 30, 2021: the first for the sale of Prometic Plasma Resources Inc. and Prometic Plasma Resources USA Inc., operating the plasma collection centers, and the second for the sale of its Ryplazim® business operated through its subsidiaries Prometic Bioproduction Inc., or PBP, and the Company's plasma-derived therapeutics manufacturing facility and PBT, the holder of the biologicals license application or BLA and intellectual property rights for Ryplazim®. Additionally, the Company's subsidiary PBT entered into an agreement, during the quarter ended September 30, 2021, with another party for the sale of the Priority Review Voucher, or PRV, it received on June 4, 2021, in conjunction with FDA approval of its BLA. These disposals cover the majority of Liminal's plasma-derived therapeutics segment.

(In thousands of Canadian dollars, except for per share amounts)

The sale of the plasma collection centers was closed on May 21, 2021. Concurrently with the closing of this transaction, the Company entered into an option agreement, or Option, which granted Kedrion the right to acquire the Ryplazim® business by June 15, 2021 which was subsequently extended to June 22, 2021. The SPA for the Ryplazim® business was signed on June 22, 2021, with the sale of PBP subsequently closing on July 9, 2021. Between the original expiry date of the Option and the sale of PBP, the Company received additional proceeds compensating the Company for the extension of the Option and the operating costs of PBP until that date. On August 6, 2021, PBT entered into a definitive agreement for the sale of the PRV with another party for proceeds of USD 105 million. The sale of the PRV closed on September 28, 2021 with PBT receiving $130,966 (net of selling costs of $1,891). The sale of PBT to Kedrion closed on October 15, 2021.

As part of the SPAs signed with Kedrion, the Company could be required to indemnify the buyer if certain events occur following the closing of each sale transactions, the whole subject to contractual limitations on such indemnifications. Estimates of potential payments and actual payments, if any, will be recorded against the gain on sale of subsidiaries.

Gain on sale of subsidiaries

The details of the gain on sale of subsidiaries during the years ended December 31, 2021, 2020 and 2019 is provided in the table below:

Year ended December 31	**2021**	2020	2019
Sale of bioseparation business			
Proceeds received	**$ —**	$ 3,380	$ 51,927
Less:			
Carrying amount of net assets sold	**—**	—	22,015
Transaction costs	**—**	—	5,015
Reclassification of foreign currency translation reserve from other comprehensive income into the statement of operations	**—**	—	(1,449)
Gain on sale of bioseparation business	**$ —**	$ 3,380	$ 26,346
Sale of plasma collection centers			
Proceeds received	**$ 13,570**	$ —	$ —
Less:			
Carrying amount of net assets sold	**10,849**	—	—
Transaction costs	**204**	—	—
Reclassification of foreign currency translation reserve from other comprehensive income into the statement of operations	**(44)**	—	—
Gain on sale of plasma collection centers	**$ 2,561**	$ —	$ —
Sale of Ryplazim business			
Proceeds received	**$ 159,787**	$ —	$ —
Less:			
Carrying amount of net assets sold	**19,541**	—	—
Indemnification adjustments	**116**		
Transaction costs	**2,288**	—	—
Gain on sale of Ryplazim business	**$ 137,842**	$ —	$ —
Gain on sale of subsidiaries, net of income taxes $nil	**$ 140,403**	$ 3,380	$ 26,346

(In thousands of Canadian dollars, except for per share amounts)

The carrying amounts of the assets and liabilities of the entities sold during the year ending December 31, 2021, as part of the sale of the plasma collection centers and the Ryplazim® business, on the dates control of the entities were transferred to the purchaser, are as follows:

	Bioseparation business	Plasma collection centers	Ryplazim business
Cash	$ 6,794	$ —	$ —
Accounts receivable	1,148	137	1,879
Inventories	8,313	8,441	4,640
Prepaids	236	21	399
Other long-term assets	48	54	50
Capital assets	8,483	2,376	9,304
Right-of-use assets	3,300	2,000	3,795
Intangible assets	370	1,092	7,277
Deferred tax assets	12	—	—
Total assets	$ 28,704	$ 14,121	$ 27,344
Accounts payable and accrued liabilities	2,163	639	2,887
Deferred revenue	370	—	—
Current portion of lease liabilities	809	665	986
Long-term portion of deferred revenues	87	—	—
Long-term portion of lease liabilities	3,260	1,968	3,930
Total liabilities	$ 6,689	$ 3,272	$ 7,803
Net assets sold	$ 22,015	$ 10,849	$ 19,541

Results and cash flows from discontinued operations

During the quarter ended March 31, 2021, the Company had determined that the plasma collection centers met the criteria to be presented as discontinued operations and therefore the results of operations and other comprehensive loss of that disposal group have been presented as discontinued operations since that quarter. Following the signing of the SPA for the Ryplazim® business during the quarter ended June 30, 2021, the results of PBP and PBT have also been presented as discontinued operations since that quarter and as well as the results of Prometic Biotherapeutics Ltd, a subsidiary that was also part of the plasma-derived therapeutics segment but was not sold and which operations will cease. The results of the former bioseparation entities have been presented as discontinued operations since the disposal on November 25, 2019.

The revenues and costs relating to all the above entities were reclassified and presented retrospectively in the consolidated statements of operations, statement of comprehensive loss for the years ended December 31, 2021, 2020 and 2019 and notes to the consolidated financial statements as discontinued operations. When presenting the result of discontinued operations, certain adjustments are made to past cost allocations if those costs are expected to be retained by the continuing operations. As such, the results from discontinued operations will not equal the historical losses from the plasma-derived therapeutic segment.

Effective with the period ended June 30, 2021, Liminal is no longer presenting segmented information as the Company's continuing operations all pertain to the small molecule segment.

(In thousands of Canadian dollars, except for per share amounts)

The net loss from discontinued operations for the years ended December 31, 2021, 2020 and 2019 are presented below:

Year ended December 31	**2021**	2020	2019
Revenues	**$ 949**	$ 2,593	$ 27,233
Expenses			
Cost of sales and other production expenses	**1,465**	1,868	14,012
Research and development expenses [1) 2)]	**76,733**	42,757	65,840
Administration expenses	**2,360**	5,933	11,009
Gain on foreign exchange	**(136)**	(633)	(759)
Impairment losses [3)]	**1,411**	19,772	11,603
Gain on extinguishment of liabilities	**—**	(79)	—
Finance costs	**2,242**	6,083	7,926
Loss from discontinued operations, net of taxes	**$ (83,126)**	$ (73,108)	$ (82,398)
Current income tax (note 26)	**1**	8	53
Deferred income tax (note 26)	**—**	—	(24)
Net loss from discontinued operations	**$ (83,127)**	$ (73,116)	$ (82,427)

1) The expense relating to an agreement with a contract development and manufacturing organization, or CDMO, which is considered an onerous contract (note 15) is included in research and development expenses for the year ended December 31, 2021.

2) On September 29, 2021 prior to the closing of the sale of PBT, PBT paid PBP, which ownership had already passed to Kedrion, $39,457 representing 30% of the net proceeds it received from the sale of the PRV, as compensation for past research and development services. A second payment made by PBT to PBP of $6,357 in prepayment for future R&D services on the same date was recognized as R&D expense since this amount would not be recoverable upon the sale of PBT.

3) During the year 2019, the Company, evaluated its intellectual property and the related market opportunities in the context of the Company's financial situation and has made further decisions about the areas the Company will or will not pursue.

One of these decisions affecting our plasma-derived therapeutic segment was to no longer pursue further indications relating to the human-plasma protein plasminogen. As such, the Company decided it would retain sufficient staff to complete and resubmit a BLA, for congenital plasminogen deficiency and to build ongoing manufacturing supply, but then it would cease all R&D activities in the plasma-derived therapeutics segment not relating to Ryplazim®. Because of this, the Company's long-term production forecasts for plasminogen were reduced and it was decided that one of its planned manufacturing facilities and a technical transfer facility would no longer be required. The Company also decided to close its R&D facility in Rockville, MD by the end of 2020. Consequently, the capital and intangible assets in the Plasma-derived therapeutics segment that were no longer to be used as originally planned were reviewed for impairment and written-down to their net recoverable value determined as the FVLCD using a market approach. The Company assessed the resale value of the property, plant and equipment, the licenses and patents, in their present condition, less cost of disposal and consequently, recorded an impairment of $7,070 and $4,535 on capital assets and intangible assets, respectively for the year ended December 31, 2019.

(In thousands of Canadian dollars, except for per share amounts)

At September 30, 2021, the carrying amount of the net assets of PBT, presented as assets of disposal group held for sale, exceeded the amount of the proceeds to be received upon the closing of the sale transaction that occurred on October 15, 2021. As assets held for sale must be carried at the lowest of their carrying amount or their fair value less cost to sell, an impairment of $1,389 was recorded on the intangible assets during the quarter ended September 30, 2021 (note 12).

At the beginning of 2021, the Company announced it had undertaken to evaluate potential alternatives aimed at minimizing the plasma-derived therapeutics segment cash burn which may result in divestment in whole or part of this business, or other courses of action including but not limited to the closure of the Ryplazim® related operations, in order to focus our resources on the small molecules segment. As the capital, intangible and ROU assets in the Ryplazim® CGU were no longer to be used as originally planned, management proceeded to review them for impairment and writing them down to their net recoverable value determined as the FVLCD using a market approach. The Ryplazim® CGU includes the assets involved in production, R&D and commercialization activities relating to the Ryplazim® product candidate that has yet to receive regulatory approval for commercialization. The Ryplazim® CGU evaluated excluded the assets pertaining to the plasma collection activities since these can generate distinct cash inflows and could potentially be divested separately from the Ryplazim® assets. The plasma collection assets were not considered impaired.

The FVLCD was calculated using a discounted cash flow model for one year and a terminal value of $58.1 million using a post-tax discount rate of 7.75%. The fair value computed by management is considered as a level 3 computation in the fair value hierarchy under *IFRS 13, Fair value measurement*. As part of this valuation exercise, management needed to make several key assumptions which affected the cash inflows and outflows considered in the model. The significant estimates used in determining the FVLCD are disclosed in note 3.

As a result of this exercise, the Company recorded impairment of $665 on capital assets (note 10), $18,553 on ROU assets (note 11) and $480 on intangible assets (note 12), respectively, representing an aggregate impairment of $19,698 on these plasma-derived therapeutic assets for the year ended December 31, 2020. Also during the year, the Company recorded other impairments on ROU assets amounting to $74.

The consolidated statements of cash flows for the years ended December 31, 2021 and 2020 were not restated to present the cash flows from the discontinued operations separately as the Company selected to provide this information in the present note. The cash flows from the discontinued operations and the gain on sale of subsidiaries for the years ended December 31, 2021 and 2020 are presented in the following table:

Year ended December 31	**2021**	2020	2019
Cash flows from (used in) in operating activities [1)]	**$ (43,089)**	$ 8,015	$ 19,493
Cash flows used in financing activities	**(3,470)**	(7,943)	(8,446)
Cash flows from (used in) investing activities	**171,225**	(729)	36,275
Net effect of currency exchange rate on cash	**(30)**	76	(3)
Cash flows generated during the year	**$ 124,636**	$ (581)	$ 47,319
Total cash flows generated from discontinued operations	**$ 124,636**	$ (581)	$ 47,319

1) When compiling the cash flows from discontinued operations which include only certain entities from the Liminal group of companies, intra-group cash transfers between entities in the discontinued operations group and those part of continuing activities, for example the funding provided by Liminal to the discontinued operations, have been classified as part of the operating activities cash flows.

(In thousands of Canadian dollars, except for per share amounts)

7. Accounts receivable and others

		December 31, 2021		December 31, 2020
Trade receivables	**$**	**229**	$	943
Tax credits and government grants receivable		**—**		1,808
Sales taxes receivable		**280**		431
Restricted cash		**—**		178
Other receivables		**559**		721
	$	**1,068**	$	4,081

8. Inventories

		December 31, 2021		December 31, 2020
Raw materials	**$**	**—**	$	9,138
Finished goods		**—**		239
	$	**—**	$	9,377

Inventories sold in the amount of $376, $1,102 and $12,441 were recognized in cost of sales and other production expenses from discontinued operations during the years ended December 31, 2021, 2020 and 2019, respectively. Inventory write-downs affecting the results from discontinued operations were $nil, $nil and $642 during the years ended December 31, 2021, 2020 and 2019, respectively.

9. Other long-term assets

		December 31, 2021		December 31, 2020
Long-term deposits	**$**	**30**	$	137
Tax credits receivable		**332**		1,216
	$	**362**	$	1,353

(In thousands of Canadian dollars, except for per share amounts)

10. Capital assets

	Land and Buildings	Leasehold improvements	Production and laboratory equipment	Furniture and computer equipment	Total
Cost					
Balance at January 1, 2020	$ 4,567	$ 8,558	$ 32,417	$ 3,223	$ 48,765
Additions	—	214	295	550	1,059
Disposals	—	(1,380)	(2,791)	(404)	(4,575)
Effect of foreign exchange differences	—	(43)	(17)	(4)	(64)
Balance at December 31, 2020	$ 4,567	$ 7,349	$ 29,904	$ 3,365	$ 45,185
Additions	—	—	99	13	112
Disposals	—	(399)	(1,516)	(306)	(2,221)
Sold - discontinued operations (note 6)	—	(6,324)	(21,525)	(2,256)	(30,105)
Effect of foreign exchange differences	—	(107)	(45)	(9)	(161)
Balance at December 31, 2021	**$ 4,567**	**$ 519**	**$ 6,917**	**$ 807**	**$ 12,810**
Accumulated depreciation					
Balance at January 1, 2020	$ 609	$ 3,429	$ 20,796	$ 2,460	$ 27,294
Depreciation expense	195	710	1,450	424	2,779
Disposals	—	(1,380)	(2,527)	(404)	(4,311)
Impairments (note 25)	—	167	498	—	665
Effect of foreign exchange differences	—	(25)	(9)	1	(33)
Balance at December 31, 2020	$ 804	$ 2,901	$ 20,208	$ 2,481	$ 26,394
Depreciation expense	195	268	662	243	1,368
Impairments (note 6)	—	—	22	—	22
Disposals	—	(400)	(1,301)	(306)	(2,007)
Sold - discontinued operations (note 6)	—	(2,400)	(14,281)	(1,744)	(18,425)
Effect of foreign exchange differences	—	(12)	(7)	(6)	(25)
Balance at December 31, 2021	**$ 999**	**$ 357**	**$ 5,303**	**$ 668**	**$ 7,327**
Carrying amounts					
At December 31, 2021	**$ 3,568**	**$ 162**	**$ 1,614**	**$ 139**	**$ 5,483**
At December 31, 2020	3,763	4,448	9,696	884	18,791

Impairment losses of $22, $665 and $7,070 were recorded on capital assets that were part of the discontinued operations (note 6) during the years ended December 31, 2021, 2020 and 2019, respectively.

The depreciation expense for the year ended December 31, 2019 was $3,734.

(In thousands of Canadian dollars, except for per share amounts)

11. Right-of-use assets

	Buildings	Production and laboratory equipment	Other	Total
Balance at January 1, 2020	$ 32,246	$ 912	$ 96	$ 33,254
Additions	378	151	15	544
Lease modifications and other remeasurements	(1,998)	—	—	(1,998)
Depreciation expense	(3,956)	(561)	(61)	(4,578)
Impairments (note 6)	(18,553)	(70)	(4)	(18,627)
Effect of foreign exchange differences	(31)	(6)	(1)	(38)
Net book value at December 31, 2020	$ 8,086	$ 426	$ 45	$ 8,557
Lease modifications and other remeasurements	3	(53)	(2)	(52)
Sold - discontinued operations (note 6)	(5,497)	(272)	(26)	(5,795)
Depreciation expense	(906)	(95)	(12)	(1,013)
Effect of foreign exchange differences	(77)	(6)	(5)	(88)
Net book value at December 31, 2021	**$ 1,609**	**$ —**	**$ —**	**$ 1,609**

The depreciation expense for the year ended December 31, 2019 was $4,913.

(In thousands of Canadian dollars, except for per share amounts)

12. Intangible assets

	Licenses and other rights	Patents	Software	Total
Cost				
Balance at January 1, 2020	$ 158,268	$ 6,309	$ 3,648	$ 168,225
Additions (note 5)	3,796	668	29	4,493
Disposals	—	(179)	(362)	(541)
Effect of foreign exchange differences	—	(15)	(9)	(24)
Balance at December 31, 2020	$ 162,064	$ 6,783	$ 3,306	$ 172,153
Additions	—	114	(1)	113
Disposals	(1,300)	(61)	(33)	(1,394)
Sold - discontinued operations (note 6)	(15,006)	(1,403)	(2,963)	(19,372)
Effect of foreign exchange differences	1	(2)	(19)	(20)
Balance at December 31, 2021	**$ 145,759**	**$ 5,431**	**$ 290**	**$ 151,480**
Accumulated amortization				
Balance at January 1, 2020	$ 149,870	$ 3,039	$ 1,470	$ 154,379
Amortization expense	242	289	559	1,090
Disposals	—	(23)	(333)	(356)
Impairments (notes 6, 25)	480	1,072	15	1,567
Effect of foreign exchange differences	—	(12)	(7)	(19)
Balance at December 31, 2020	$ 150,592	$ 4,365	$ 1,704	$ 156,661
Amortization expense	316	1,248	399	1,963
Disposals	(1,298)	(51)	(34)	(1,383)
Sold - discontinued operations (note 6)	(8,698)	(533)	(1,772)	(11,003)
Impairments (notes 6, 25)	1,389	341	—	1,730
Effect of foreign exchange differences	16	(13)	(7)	(4)
Balance at December 31, 2021	**$ 142,317**	**$ 5,357**	**$ 290**	**$ 147,964**
Carrying amounts				
At December 31, 2021	**$ 3,442**	**$ 74**	**$ —**	**$ 3,516**
At December 31, 2020	11,472	2,418	1,602	15,492

Impairment losses of $341, $1,087 and $763 were recorded on certain licenses and patents pertaining to continuing operations (note 6) during the years ended December 31, 2021, 2020 and 2019, respectively, while impairment losses of $1,389, $480 and $4,533 were recorded on intangible assets pertaining to discontinued operations during the years ended December 31, 2021, 2020 and 2019, respectively.

The amortization expense for the year ended December 31, 2019 was $1,259.

(In thousands of Canadian dollars, except for per share amounts)

13. Accounts payable and accrued liabilities

	December 31, 2021	December 31, 2020
Trade payables	**$ 5,762**	$ 9,153
Wages and benefits payable	**1,297**	3,083
Refundable tax credits	**113**	**—**
Current portion of royalty payment obligations (note 18)	**25**	3,248
Current portion of other employee benefit liabilities (note 18)	**146**	1,351
	$ 7,343	$ 16,835

14. Lease liabilities

The transactions affecting the lease liabilities during the years ended December 31, 2021 and 2020 were as follows:

	2021	2020
Balance at January 1	**$ 33,452**	$ 38,237
Additions	**—**	544
Interest expense	**3,754**	6,030
Payments	**(4,321)**	(9,167)
Derecognized - discontinued operations (note 6)	**(7,549)**	—
Lease modification and other remeasurements	**(2,588)**	(1,934)
Effect of foreign exchange differences	**(277)**	(258)
Balance at December 31	**$ 22,471**	$ 33,452
Less current portion of lease liabilities	**(7,194)**	(6,946)
Long-term portion of lease liabilities	**$ 15,277**	$ 26,506

Interest expense on lease liabilities is included as part of finance costs in the consolidated statement of operations. Interest on the lease liabilities was $7,068 for the year ended December 31, 2019.

On August 12, 2021, the Company gave a notice of early termination of a master services agreement entered into with a CDMO with whom it has a contract pertaining to its former plasma-derived therapeutics business, using the available 5-year early cancellation notification period set forth under the CDMO contract which resulted in a decrease in the term of the contract by 3.8 years. A portion of the commitments under this CDMO contract are accounted for as a lease liability while the non-lease commitment is being accounted for as an onerous contract provision since June 2021 (note 15). The financial impact of revising the lease term to reflect the effect of exercising the termination option was a decrease in lease liabilities of $2,529 and the gain on this transaction was recorded as part of the net loss from discontinued operations for the year ended December 31, 2021.

(In thousands of Canadian dollars, except for per share amounts)

15. Provisions

Initial recognition of provisions at June 30, 2021	$	21,928
Increase to provisions during the period		439
Effect of foreign exchange difference		(262)
Interest expense		90
Balance at December 31, 2021	$	22,195
Less current portion of provisions		(3,957)
Long-term portion of provisions	$	18,238

The Company has a long-term contract with a CDMO for which it has no use following its decision to exit the plasma-derived therapeutics business (note 14). As such, the Company recorded in June 2021, an initial provision for onerous contract for the non-lease portion of the contract calculated as the discounted value of the estimated purchase commitment set forth under the contract using the available 5-year early cancellation notification period. In August 2021, the Company sent the CDMO an early termination notice and the provision was adjusted to reflect the revised maturity date of the contract. The payments under the lease and non-lease portions are variable since there is a CAD/USD foreign exchange variation component that affects each portion, however the total purchase commitment under the lease remains the same at $9,000 per year. As such, the effects the foreign exchange differences have on the computation of the carrying value of the provision from period to period essentially offset by the opposite variation of the foreign exchange differences on the lease portion, or the lease liability, of this same contract (note 14).

The Company is investigating different avenues to potentially reduce the impact of this contract on its future cash outflows. Changes in the provision expense are included as part of the net loss from discontinued operations. The gain or losses on foreign exchange and the interest expense recorded on this CDMO contract are included in the results from continuing operations.

16. Warrant liability

2019

As consideration for the modification of the terms of the loan agreements between Liminal and SALP on November 14, 2018, the Company had a commitment to issue warrants, or Warrants #9, to SALP on or before March 20, 2019. The exact number of warrants to be issued was based on the number of warrants necessary to increase the ownership of SALP to 19.99% on a fully diluted basis at the date of issuance.

On February 22, 2019, the Company further amended the fourth loan agreement with SALP with the addition of two tranches, one of US$10 million and another one of US$5 million, that were drawn on February 22, 2019 and March 22, 2019, respectively. As consideration for the modification to the fourth loan agreement, the Company amended the terms applicable at the time of issuance of Warrants #9 to reduce the originally agreed exercise price from $1,000.00 to $156.36 per preferred share and to issue the Warrants #9 concurrently with this modification. Accordingly, the Company issued 19,402 warrants on February 22, 2019. Each warrant entitled the holder to acquire one preferred share at a price of $156.36 per preferred share expiring on February 22, 2027. The Warrants #9 did not meet the definition of an equity instrument since the underlying preferred shares qualify as a liability instrument, and therefore they were accounted for as a financial instrument carried at fair value through profit or loss and were presented in the consolidated statement of financial position as a warrant liability.

The change in fair value of the warrant liability between December 31, 2018, when it was valued at $157 and prior to its modification on February 22, 2019, in the amount of $218 was recorded in the consolidated statement of operations. The Company recorded the increase in fair value of the warrants of $1,137 resulting from the reduction of the exercise price of Warrants #9 on February 22, 2019 against the two additional tranches of the credit facility, treating the increase as financing fees. The change in fair value of the warrant liability between February 22, 2019, after the modification, and March 31, 2019 was an increase of $11 and a decrease in fair value of $1,369 (a gain) between March 31, 2019 to April 23, 2019. Both variations were recorded in the consolidated statements of operations. The estimated fair value of these warrants at April 23, 2019 was $153.

As part of the debt restructuring agreement entered into on April 23, 2019 (note 17), all the outstanding warrants belonging to SALP, including the Warrants #9, were cancelled and replaced by 168,735 warrants having an exercise price of $15.21 (note 19c). The cancellation and the issuance of new warrants was treated as a modification. Following this modification, the Warrants #9 no longer meet the definition of a liability instrument and the Company reclassified the fair value of the Warrants #9 as of April 23, 2019 of $153 from warrant liability to warrants classified as equity.

2020 and 2021

As part of the consideration for the private placement completed on November 3, 2020 (note 19a) where SALP and another investor participated equally, and a subsequent amendment to this private placement agreement made on November 25, 2020, the Company issued a total of 7,894,734 warrants that expire on November 3, 2025. Both of these issuances combined are referred to as the November 2020 warrants. Each warrant can be exercised to acquire one common share at an exercise price initially set at USD 5.50 and that can be reduced if equity financings are completed at a lower price before its expiry. The November 2020 warrants do not meet the definition of an equity instrument since the exercise price is denominated in USD which is different than the functional currency of Liminal which is the CAD. Consequently, they are accounted for as a financial instrument, presented as a warrant liability in the consolidated statement of financial position and carried at fair value through profit or loss.

The fair value of the warrants issued on November 3, 2020 and November 25, 2020 were $10,263 and $2,227, respectively. The portion of the total issuance cost pertaining to the private placement allocated to the issuance of the November 3, 2020 warrants of $709 and the fair value of the additional warrants issued on November 25, 2020 were recorded in the consolidated statement of operation transactions in financing costs and administration, selling and marketing expenses respectively. The fair value of the warrant liability of the November 2020 warrants was $11,640 at December 31, 2020. The gain of $850 resulting from the change in fair value of the warrants since their issuance was recognized in the statement of operations for the year ended December 31, 2020. The fair value of the November 2020 warrants was $1,754 at December 31, 2021 and the gain of $9,886, resulting from the change in fair value of the November 2020 warrants during the year ended December 31, 2021 was recognized in the consolidated statement of operations. The fair value for the November 2020 warrants held by SALP was $877 and $5,820 at December 31, 2021 and 2020.

(In thousands of Canadian dollars, except for per share amounts)

The fair value of the November 2020 warrants on the various dates discussed above was calculated using a Black-Scholes option pricing model in a Monte Carlo simulation in order to evaluate the downward adjustment mechanism to the exercise price. The assumptions used at the different valuation dates are provided in the table below:

		December 31, 2021		December 31, 2020
Underlying common share fair value (in USD)	**$**	**1.09**	$	4.20
Remaining life until expiry		**3.8**		4.8
Volatility		**56.0%**		49.0%
Risk-free interest rate		**1.13%**		0.34%
Expected dividend rate		**—**		—
Fair value of a warrant calculated using a Black-Sholes pricing model (in USD)	**$**	**0.08**	$	1.41
Fair value of exercise price adjustment mechanism (in USD)	**$**	**0.16**	$	0.22
Illiquidity discount		**28.0%**		29.0%
Fair value of a warrant (in USD)	**$**	**0.18**	$	1.16
Fair value of a warrant (in CAD)	**$**	**0.22**	$	1.47

17. Long-term debt

		2021		2020
Balance at January 1	**$**	**40,532**	$	8,834
Stated and accreted interest		**4,388**		2,209
Drawdown on non-revolving line of credit (second term loan)		**—**		29,123
Issuance of secured convertible debentures		**—**		2,410
Conversion of secured convertible debt into shares		**(2,664)**		—
Repayment of principal		**—**		(165)
Repayment of stated interest		**(3,945)**		(1,879)
Balance at December 31	**$**	**38,311**	$	40,532

At December 31, 2021 and 2020, the carrying amount of the debt comprised the following loans:

		December 31, 2021		December 31, 2020
First term loan having a principal of $10,000 maturing on April 23, 2024 bearing stated interest of 10% per annum (effective interest rate of 15.05%) [1)]	**$**	**9,188**	$	8,910
Second term loan having a principal of $29,123 maturing on April 23, 2024 bearing stated interest of 10% per annum (effective interest rate of 10.47%) [1)]		**29,123**		29,123
Secured convertible debentures having an aggregate principal amount of $2,410 maturing on March 31, 2022 bearing stated interest of 8% per annum (effective interest rate of 8.24%) [2)]		**—**		2,499
	$	**38,311**	$	40,532
Less current portion of long-term debt		**—**		—
Long-term portion of long-term debt	**$**	**38,311**	$	40,532

1) The first and second term loans issued under the consolidated loan agreement with SALP are secured by all the assets of the Company and require that certain covenants be respected including maintaining an adjusted working capital ratio. In February 2022, these loans were repaid in full (note 33).

2) The secured convertible debentures were secured by all the assets of Fairhaven. The Company's security interest granted in connection with its consolidated loan agreement with SALP, its parent, was subordinated to the security interest on the Fairhaven assets granted in favor of the holder of the secured convertible debentures.

2019

On April 23, 2019, the Company entered into a debt restructuring agreement with the long-term debt holder whereby the entirety of the principal on the Credit Facility plus a portion of the interest due, the entirety of the First and Second Original Issue Discount ("OID") loans and the majority of the Third OID loan would be repaid by Liminal by the issuance of common shares, at a conversion price, rounded to the nearest two decimals, of $15.21 per common share. Consequently, the US$95 million of principal plus interest due on the Credit Facility was reduced to $663 and the aggregate face value of the three OID loans was reduced by $99,552 to $10,000 with the remaining balance of the Third OID loan modified into an interest-bearing loan at a stated interest of 10% payable quarterly.

This resulted in the reduction of the long-term debt recorded on the consolidated statement of financial position by $141,536. The Company issued 15,050,312 common shares on that date which were recorded in share capital at a value of $228,915. The difference between the carrying amount of the debt converted into common shares and the increase in the value of the share capital is recognized as a loss on extinguishment of a loan of $87,379. The balance of interest due on the credit facility of $663 was paid in cash. The deferred financing fees pertaining to the extinguished loans of $653 was expensed.

The 15,050,312 common shares issued as part of the debt restructuring contained trading restrictions and accordingly, the Company determined that their quoted price did not fairly represent the value of the shares issued. As such, the issued shares were recorded at fair value using a market approach under a level 2 fair value measurement of $15.21 per share, resulting in a value of the shares issued of $228,915. The fair value was based on a share issuance for cash on the same date with a non-related party.

Pursuant to the debt restructuring, the Company cancelled the warrants previously held by SALP and replaced them with 168,735 new warrants having an exercise price rounded to the nearest two decimals of $15.21 per common share, expiring on April 23, 2027 (note 19c). The incremental fair value of the replacement warrants of $408 was recognized in warrants equity and as part of the loss on the debt extinguishment together with the legal fees incurred to finalize all the related legal agreements.

The modification in terms of the remaining balance of the Third OID loan of $10,000 was accounted for as an extinguishment of the long-term debt and the re-issuance of a new interest-bearing loan, the first term loan. The difference between the carrying amount of the loan extinguished of $4,667 and the $8,521 recognized as the fair value of the new loan with the parent was recorded as a loss on debt extinguishment of $3,854. The fair value of the modified loan was determined using a discounted cash flow model with a market interest rate of 15.1%.

(In thousands of Canadian dollars, except for per share amounts)

As a result of this transaction and the extinguishments of liabilities that occurred earlier in the beginning of 2019 following payments made to suppliers by the issuance of equity (note 19a), the consolidated statement of operations for the year ended December 31, 2019, includes a loss on extinguishment of liabilities of $92,374 detailed as follows:

Loss on extinguishment of liabilities due to April 23, 2019 loan modification		
Comprising the following elements:		
Debt to equity conversion	$	87,379
Expensing of financing fees on loan extinguishment		653
Extinguishment of previous loan		(4,667)
Recognition of modified loan		8,521
Expensing of increase in the fair value of the warrants (note 19c)		408
Loss on extinguishment of liabilities due to April 23, 2019 loan modification	$	92,294
Loss on extinguishment of liabilities to suppliers (note 19a)		80
Loss on extinguishments of liabilities	$	92,374

During the year ended December 31, 2019, the aggregate stated and accreted interest on the long-term debt was $7,874.

2020

Concurrently with the Fairhaven acquisition that closed on July 17, 2020, the Company issued secured convertible debentures, or SCD, to certain former Fairhaven shareholders, for an aggregate principal amount of $2,410 and bearing an interest rate of 8% per annum, compounded quarterly. The SCD are due on the earlier of i) March 31, 2022, the maturity date, unless converted into common shares of the Company prior to the maturity date or ii) upon a change of control event. At any time prior to the maturity date, the SCD holders have the right to convert the SCD into common shares of the Company. Liminal has the right to convert the SCD into common shares under certain pre-determined events. The five-trading day VWAP of Liminal's common shares immediately preceding the date of any conversion will be used to determine the number of common shares of the Company that will be issued. The SCD were recorded as financial liabilities. The conversion features were determined to have no value.

At any time prior to the maturity date and until the amendment discussed below, the holders had a collective right to purchase additional SCD issued by the Company for an aggregate principal amount of up to $5,740 with substantially the same terms and conditions as set out in the original SCD. If the pre-determined events allowing the Company to trigger the conversion of the SCD occur prior to the maturity date, the Company has the right to require the holders of the SCD to purchase additional SCD for an aggregate principal amount of up to $5,740, which would then be converted into common shares.

On November 11, 2019, the consolidated loan agreement with SALP was amended to provide for a non-revolving line of credit bearing the same terms and conditions as the first term loan. On September 14, 2020, the Company drew down $29,123 on the non-revolving line of credit representing the entire balance available, which resulted in the issuance of the second term loan. The second term loan bears an annual interest rate of 10% compounded monthly , is payable quarterly and matures on April 23, 2024.

(In thousands of Canadian dollars, except for per share amounts)

2021

On October 20, 2021, the Company exercised its right to convert the entirety of its SCD, having a balance of $2,664 on the conversion date into 1,098,577 common shares of Liminal, using a conversion price of $2.42 (USD 1.96) calculated as the volume weighted average trading price of the shares in the five trading days immediately preceding the conversion. Liminal's conversion right became exercisable upon the occurrence of an event which resulted in the Company having a cash balance over $75,000. The difference between the carrying value of the SCD and the fair value of the common shares issued and recorded in share capital of $2,589, calculated using the closing trading price on the conversion date, was $75 and was recorded as a gain on extinguishment of a liability.

The Company and the parties to the share purchase agreement dated July 17, 2020 entered into an amendment to this agreement in November 2021 to terminate 1) the collective rights of certain sellers to purchase additional SCD issued by the Company for an aggregate principal amount of up to $5,740 with substantially the same terms and conditions as set out in the original SCD and 2) the Company's right, if the pre-determined events allowing the Company to trigger the conversion of the SCD occur prior to the maturity date, to require certain sellers to purchase additional SCD for an aggregate principal amount of up to $5,740, which would then be converted into common shares.

At December 31, 2021, the Company was in compliance with all of its covenants under its long-term debt agreement.

Subsequent to December 31, 2021, the consolidated loan agreement with SALP was terminated and the first and second term loans were repaid (note 33).

18. Other long-term liabilities

		December 31, 2021		December 31, 2020
Royalty payment obligations (a)	**$**	**123**	$	3,355
Other employee benefit liabilities		**146**		1,557
	$	**269**	$	4,912
Less:				
Current portion of royalty payment obligations (note 13)		**(25)**		(3,248)
Current portion of other employee benefit liabilities (note 13)		**(146)**		(1,351)
	$	**98**	$	313

a) Royalty payment obligations

i) Royalty payment obligations to SALP

During 2018, the Company signed a royalty stream agreement with SALP at the same time as certain conditions pertaining to the second advance of the credit facility were modified. The financial commitments that remain under this agreement at December 31, 2021 and 2020 include 1) a minimum royalty payment of USD 5,000,000 per quarter until approximately 2034 and a liability of $123 was recognized in the consolidated statement of financial position at December 31, 2021 ($132 at December 31, 2020), and 2) a net sales royalty commitment (note 30) for which no liabilities have yet to be recorded in the consolidated financial statements. On February 15, 2022, the royalty stream agreement was terminated (note 33).

(In thousands of Canadian dollars, except for per share amounts)

ii) Royalty payment obligation for reacquired rights

As part of the consideration given by the Company in 2016 for the reacquisition of the rights to 50% of the worldwide profits pertaining to the sale of plasminogen for the treatment of plasminogen congenital deficiency which were previously granted to a licensee under a license agreement, the Company agreed to make royalty payments on the sales of plasminogen for congenital deficiency, using a rate of 5% up to a total of USD 2.5 million, the unpaid balance becoming due at December 31, 2020. At December 2020, the Company recognized a royalty payment obligation of $3,223 (USD 2.5 million) in the consolidated statement of financial position. The balance was paid in 2021.

19. Share capital and other equity instruments

a) Share capital

Authorized and without par value

Common shares: unlimited number authorized, participating, carrying one vote per share, entitled to dividends.

Preferred shares: unlimited number authorized, issuable in one or more series.

- Series A preferred shares: unlimited number authorized, no par value, non-voting, ranking in priority to the common shares, entitled to the same dividends as the common shares, non-transferable, redeemable at the redemption amount offered for the common shares upon a change in control event.

Changes in the issued and outstanding common shares during the year ended December 31, 2021 and 2020 were as follows:

	2021			2020	
	Number	**Amount**	Number		Amount
Balance - beginning of year	**29,943,839**	**$ 977,261**	23,313,164	$	932,951
Issued to acquire assets	**—**	**—**	299,141		4,681
Exercise of stock options (note 19b)	**—**	**—**	5,391		167
Exercise of pre-funded warrants (note 19c)	**—**	**—**	557,894		2,624
Shares issued pursuant to a restricted share units plan (note 19b)	**144**	**—**	10,355		9,764
Shares issued for cash	**—**	**—**	5,757,894		27,074
Shares issued upon conversion of debt	**1,098,577**	**2,588**	—		—
Balance - end of year	**31,042,560**	**$ 979,849**	29,943,839	$	977,261

2021

On October 20, 2021, the Company exercised its right to convert, the entirety of its secured convertible debt (note 17) into 1,098,577 of its common shares.

2020

On January 29, 2020, the Company issued 96,833 common shares as a consideration for the final payment for a license acquired in January 2018. This transaction was accounted for as an extinguishment of the license acquisition payment obligation and the difference between the carrying value of the liability of $1,319 and the amount recorded for the shares issued of $1,240, which were valued at the market price of the shares on their date of issuance, was recorded as a gain on extinguishment of liabilities of $79 during the year ended December 31, 2020.

On July 17, 2020 the Company issued 202,308 common shares in payment for the acquisition of Fairhaven, which has been accounted for as an asset acquisition (note 5). The common shares issued were valued at the market price of the shares, on their date of issuance for an aggregate value of $3,441.

On November 3, 2020, the Company completed a private placement for a total gross proceed of $39,960 in exchange for the issuance of 5,757,894 common shares, 557,894 prefunded warrants (note 19c) and 6,315,788 warrants (note 16, 19c). SALP's participation in the private placement was for gross proceeds of $19,980.

The total gross proceeds were allocated to the warrant liability based on its fair value of $10,263 on that date with the residual value being allocated between the common shares and the pre-funded warrants. The value attributed to the common share was $27,074. The total transaction costs of $2,755 were allocated to the three instruments issued based on their relative fair values. The amount allocated to the common shares and the pre-funded warrants, of $2,048, was recognized in the deficit.

On December 30, 2020, the 557,894 pre-funded warrants were exercised resulting in the issuance of 557,894 common shares and the receipt of $1 in cash. An amount of $2,623 was reclassified from warrants to common shares.

2019

On February 25 and 27, 2019, the Company issued a total of 1,472 common shares in payment for amounts due to certain suppliers. This transaction was accounted for as an extinguishment of liabilities and the difference between the carrying value of the accounts payable of $465 and the amount recorded for the shares issued of $545, which were valued at the market price of the shares on their date of issuance, was recorded as a loss on extinguishment of liabilities of $80 (note 17).

As part of the settlement agreement concluded in April 2019 with the former CEO of the Company, common shares held in escrow as security for a share purchase loan of $400 to the former CEO were released and the loan extinguished in exchange for the receipt of a payment of $137, representing the fair value of the shares at the time of the settlement.

In May 2019, the Company announced a Rights Offering to the holders of its common shares at the close of business on May 21, 2019 to subscribe for up to 20 additional common shares, for each share they held, for a subscription price rounded to the nearest two decimals of $15.21 per common share. The Right Offering was subject to a proration to ensure that no more than $75,000 was raised. In June 2019, the Company issued 2,592,628 common shares for gross proceeds of $39,434 as part of the Right Offerings less transactions costs of $271 recorded in deficit, for total net proceeds of $39,163.

b) Contributed surplus (Share-based payments)

Stock options

The Company has established a stock option plan for its directors, officers, employees and service providers. The plan provides that the aggregate number of shares reserved for issuance at any time under the plan may not exceed 3,749,714 common shares and the maximum number of common shares, which may be reserved for issuance to any individual, may not exceed 5% of the outstanding common shares. The stock options issued under the plan may be exercised over a period not exceeding ten years from the date they were granted. Most of the stock options outstanding have a contractual life of 10 years.

(In thousands of Canadian dollars, except for per share amounts)

The vesting period of the stock options varies from immediate vesting to vesting over a period not exceeding six years, most of them vesting over four years. Participants meeting certain service and age requirements may see the vesting of certain awards accelerate upon retirement. The vesting conditions are established by the Board of Directors on the grant date. The exercise price is based on the weighted average share price for the five business days prior to the grant.

For stock options having a CAD exercise price, the changes in the number of stock options outstanding during the years ended December 31, 2021 and 2020 were as follows:

	2021			2020		2019	
	Number	**Weighted average exercise price ($)**	Number	Weighted average exercise price ($)	Number	Weighted average exercise price ($)
Balance - beginning of year	**2,485,555**	**$ 18.70**	2,209,864	$ 38.72	21,625	$ 1,464.49
Granted	**—**	**—**	436,570	14.06	2,218,810	33.13
Forfeited	**(1,321,651)**	**14.34**	(153,982)	19.33	(16,774)	159.61
Exercised	**—**	**—**	(5,391)	15.21	—	—
Cancelled	**—**	**—**	—	—	(11,713)	1,237.94
Expired	**(136,126)**	**40.70**	(1,506)	2,462.46	(2,084)	1,176.20
Repriced - options before repricing	**—**	**—**	(1,929,685)	35.14	—	—
Repriced - options after repricing	**—**	**—**	1,929,685	15.21	—	—
Balance - end of year	**1,027,778**	**$ 21.39**	2,485,555	$ 18.70	2,209,864	$ 38.72

For options having a USD exercise price, the changes in the number of stock options outstanding during the years ended December 31, 2021 and 2020 were as follows:

	2021		2020	
	Number	**Weighted average exercise price (USD)**	Number	Weighted average exercise price (USD)
Balance - beginning of year	**305,000**	**$ 4.70**	—	$ —
Granted	**492,000**	**2.80**	305,000	4.70
Forfeited	**(38,000)**	**4.10**	—	**—**
Expired	**(10,000)**	**4.27**	—	**—**
Balance - end of year	**749,000**	**$ 3.49**	305,000	$ 4.70

(In thousands of Canadian dollars, except for per share amounts)

2021

In January 2021, 40,000 stock options having an exercise price of USD 5.34, of which 20,000 stock options vested immediately and the remaining stock options vest over a period up to one year, were issued to a member of the Board of Directors. In June 2021, 50,000 stock options having an exercise price of USD 4.09, of which 25,000 stock options vested immediately and the remaining stock options vest over a period up to one year, were issued to a member of the Board of Directors. In July 2021, 50,000 stock options having an exercise price of USD 3.93, of which 12,500 stock options vested on October 1, 2021 and the remaining stock options vest over a period up to one year, were issued to members of the Board of Directors. In October 2021, 352,000 stock options, having an exercise price of USD 2.17 and vesting over a period of up to four years, were issued to employees.

2020

In March 2020, Liminal's board of directors approved a plan to reduce the exercise price of the stock options issued in June 2019, held by active employees and directors at the time of the repricing. On May 26, 2020, a revised exercise price, pending approval, of $15.21 was determined, changing the exercise price to the higher of (i) $15.21 and (ii) the five trading-day VWAP of Liminal common shares on the repricing date. On June 8, 2020, the repricing of 1,929,685 of the outstanding stock options having exercise prices of $27.00 and $36.00 to the revised exercise price was approved at the Company's annual shareholder meeting.

Although the stock options were not repriced until May 26 2020, management concluded that the service period for employees and directors to earn the modified awards had commenced from the date the Company informed the holders of these stock options of the repricing proposal and the expense resulting from the repricing plan should be recognized starting from that date. Using the revised exercise price of $15.21, the Company calculated the final incremental fair value of the repricing on the grant date of May 26, 2020 to be $3,000. This incremental fair-value will be amortized from the services commencement date of March 25 over the remaining vesting period of the repriced options. The incremental grant date fair value of the repriced options was estimated based on the Black-Scholes option-pricing model calculated before and after the effect of the repricing. The following Black-Scholes assumption were used:

Expected dividend rate		—
Expected volatility of share price		93.2%
Risk-free interest rate		0.4%
Expected life in years		6.3
Weighted average grant date incremental fair value	$	1.55

In June 2020, 436,570 stock options, having an exercise price of $14.06 and vesting over a period of up to four years, were issued to employees and directors. In October 2020, 20,000 stock options, having an exercise price of US$10.80 and vesting over a period of three years were issued to a new director. In December 2020, 285,000 stock options having an exercise price of US$4.27, of which 95,000 stock options vested immediately and the remaining stock options vest over a period up to three years, were issued to key management.

During the year ended December 31, 2020, 5,391 stock options were exercised resulting in cash proceeds of $82 and a transfer from contributed surplus to share capital of $85. The weighted average share price on the date of exercise of the stock options during the year ended December 31, 2020 was $18.47.

(In thousands of Canadian dollars, except for per share amounts)

2019

On January 24, 2019, 1,622 stock options were granted at an exercise price of $300.00 and vesting on December 31, 2019. On June 4, 2019, 1,794,224 stock options were granted to management at a strike price of $36.00 of which 248,825 stock options vested immediately and the remaining vest over a period up to six years. On June 19, 2019, 251,714 stock options were issued at a strike price of $27.00 of which 60,717 stock options vested immediately and the remaining vest over a period up to four years. On September 3, 2019, 71,250 stock options were issued at a strike price of $11.99 and on December 3, 2019, 100,000 stock options were issued at a strike price of $7.86, both of these grants having a vesting period of up to four years. The weighted average grant date fair value of the stock options issued in 2019 was $12.74.

In June and August 2019, the Company cancelled the options that were issued prior to June 2019, as the exercise price of these options were so above the market price at the time, that it was highly unlikely that they would ever be exercised. In compensation for their agreement to the cancellation, key management and employees, received the new options granted to them in June 2019 discussed above. Consequently, 11,084 stock options with a weighted average exercise price of $1,256.73 were cancelled. There was no exercise of stock options in 2019.

The Company uses the Black-Scholes option pricing model to calculate the fair value of stock options at the date of grant. The weighted average inputs into the model and the resulting grant date fair values during the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Expected dividend rate	**—**	—	—
Expected volatility of share price	**115.0%**	100.5%	45.0%
Risk-free interest rate	**1.21%**	0.5%	1.4%
Expected life in years	**6.7**	6.7	7.2
Weighted average grant date fair value	**$ 2.85**	$ 8.66	$ 12.74

At December 31, 2021, stock options issued and outstanding denominated in CAD and USD by range of exercise price are as follows:

Range of exercise price for stock option issued in CAD	**Number outstanding**	**Weighted average remaining contractual life (in years)**	**Weighted average exercise price ($)**	**Number exercisable**	**Weighted average exercise price ($)**
$7.86-$11.99	30,000	7.7	$ 11.99	16,875	$ 11.99
$14.06	141,650	8.4	14.06	78,112	14.06
$15.21	800,778	7.4	15.21	522,862	15.21
$27.00-$2,220.00	55,350	7.3	134.61	54,985	130.88
	1,027,778	7.6	$ 21.39	672,834	$ 24.45

Range of exercise price for stock option issued in USD	**Number outstanding**	**Weighted average remaining contractual life (in years)**	**Weighted average exercise price (USD)**	**Number exercisable**	**Weighted average exercise price (USD)**
$2.17	349,000	9.8	$ 2.17	—	$ —
$3.93-$5.34	380,000	9.1	4.31	192,500	4.34
$10.80	20,000	8.8	10.80	6,666	10.80
	749,000	9.4	$ 3.49	199,166	$ 4.55

(In thousands of Canadian dollars, except for per share amounts)

A share-based payment compensation expense of $4,252 was recorded for the stock options for the year ended December 31, 2021 ($6,169 and $12,212 for the year ended December 31, 2020 and 2019 respectively).

Restricted share units

The Company has established an equity-settled RSU plan for executive officers of the Company, as part of its incentive program designed to align the interests of its executives with those of its shareholders, and in accordance with its long-term incentive plan. The vesting conditions are established by the Board of Directors on the grant date. Participants meeting certain service and age requirements may see the vesting of certain awards accelerate upon retirement. Each vested RSU gives the right to receive a common share. There have been no RSU grants since 2018 and all the RSU that were earned have since been settled.

Changes in the number of RSU outstanding during the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Balance - beginning of year	**4,216**	17,565	18,299
Granted	**—**	—	12,564
Forfeited	**(48)**	(46)	(409)
Released	**(144)**	(10,355)	—
Paid in cash	**(4,024)**	(2,948)	(8,396)
Cancelled	**—**	—	(4,493)
Balance - end of year	**—**	4,216	17,565

2021

There was $nil share-based payment compensation expense recorded in regards to the RSU during the year ended December 31, 2021.

During the year ended December 31, 2021, 4,024 RSU were paid in cash resulting in a reduction to contributed surplus of $20.

2020

During the year ended December 31, 2020, 2,948 RSU were paid in cash resulting in a reduction to contributed surplus of $40. As at December 31, 2020, all 4,216 outstanding RSU were vested. A share-based payment compensation expense of $65 was recorded during the year ended December 31, 2020.

2019

On January 31, 2019, the Company granted 12,564 RSU at a grant price of $300.00 and a one-year vesting period. On May 30, 2019, the Company decided to vest the 12,564 RSU and the employees were given the choice to receive the then current value of the shares in cash or to receive the shares at a later date. As a result, 8,396 RSU were released and paid in cash resulting in a reduction to contributed surplus of $421.

On May 7, 2019 the 12,886 performance based RSU pertaining to the "2017-2019" cycle and the "2018-2020" cycle were modified by removing the performance conditions and converting them into time-vesting RSU. The quantity modified into time-vesting units was equivalent to the 100% achievement range whereby in the past, the outcome of the performance conditions could go from zero to 150%. Historically, the Company has always reported the quantity of RSU outstanding as the maximum number of shares that could be issued under the plan. This change resulted in the cancellation of 4,305 units.

(In thousands of Canadian dollars, except for per share amounts)

At December 31, 2019, 13,262 vested RSU and 4,303 unvested RSU were outstanding. Share-based payments compensation expense of $9,818 was recorded during the year ended December 31, 2019.

Share-based payments expense

The total share-based payments compensation expense, comprising the above-mentioned expenses for stock options and RSU, has been included in the consolidated statements of operations for the years ended December 31, 2021, 2020 and 2019 as indicated in the following table:

	2021	2020	2019
Administration expenses	**$ 3,760**	$ 3,248	$ 14,315
Research and development expenses	**936**	2,430	2,836
Loss from discontinued operations	**(444)**	556	4,879
	$ 4,252	$ 6,234	$ 22,030

c) Warrants

The following table presents the number of warrants outstanding with an exercise price in CAD during the years ended December 31, 2021 and 2020:

	2021		2020	
	Number	**Weighted average exercise price ($)**	Number	Weighted average exercise price ($)
Balance of warrants - end of year	**172,735**	**$ 84.33**	172,735	$ 84.33

The following table presents the changes in the number of warrants outstanding with an exercise price in USD during the years ended December 31, 2021 and 2020:

	2021		2020	
	Number	**Weighted average exercise price (USD)**	Number	Weighted average exercise price (USD)
Balance of warrants - beginning of year	**7,894,734**	**$ 5.50**	—	$ —
Issued for cash	**—**	**—**	6,873,682	5.05
Issued for no consideration	**—**	**—**	1,578,946	5.50
Exercised	**—**	**—**	(557,894)	—
Balance of warrants - end of year	**7,894,734**	**$ 5.50**	7,894,734	$ 5.50

The 7,894,734 warrants shown in the table above, are those accounted for as a warrant liability (note 16) and are included in this note in order that all the outstanding warrants are presented in aggregate in the tables above.

(In thousands of Canadian dollars, except for per share amounts)

2020

As a consideration to the private placement on November 3, 2020 (note 19a), the Company issued 6,315,788 warrants and 557,894 pre-funded warrants. The gross proceeds allocated to the pre-funded warrants was $2,623. The pre-funded warrants exercise price was US$0.001 and a term of five years.

On November 25, 2020, the Company issued 1,578,946 additional warrants with the same terms and conditions as described above, following an amendment to the private placement agreement, for a total of 7,894,734 warrants (note 16). On December 30, 2020, the pre-funded warrants were fully exercised and 557,894 common shares were issued (note 19a).

The warrants outstanding as at December 31, 2021, their exercise price in CAD or in USD, expiry rate and the overall weighted average exercise price in both currency are as follows:

	Number	Expiry date	Exercise price (CAD)
	4,000	January 2023	$ 3,000.00
	168,735	April 2027	15.21
Warrants outstanding with an exercise price in CAD	172,735		$ 84.33

	Number	Expiry date	Exercise price (USD)
Warrants outstanding with an exercise price in USD	7,894,734	November 2025	$ 5.50

On February 15, 2022, the 168,735 warrants having an exercise price of $15.21 were cancelled (note 33).

(In thousands of Canadian dollars, except for per share amounts)

20. Non-controlling interests

The Company held less than 100% interest in the following two entities during the last three fiscal years. The Company's interest in these subsidiaries at December 31, 2021 and 2020 was as follows:

Name of subsidiary	Segment activity	Place of incorporation and operation	Proportion of ownership interest held by group
Pathogen Removal and Diagnostic Technologies Inc.	Corporate	Delaware, U.S.	**77%**
NantPro Biosciences, LLC	Plasma-derived therapeutics	Delaware, U.S.	**73%**

NantPro Biosciences, LLC or Nantpro, wound up its activities in 2019. There have been no operating costs since 2020. The carrying value of NantPro's assets and liabilities was $nil at December 31, 2021 and 2020 and consequently, the share of the NCI in the NantPro statement of financial position is $nil at December 31, 2021 and 2020.

The summarized statements of financial position for Pathogen Removal and Diagnostic Technologies Inc, or PRDT, and the summarized statements of operations for PRDT are provided below. This information is based on amounts before inter-company eliminations.

Summarized statements of financial position for PRDT:

	December 31, 2021	December 31, 2020
Receivables (current)	**$ 227**	$ 233
Capital and intangible assets (long-term)	**74**	113
Trade and other payables (current)	**(987)**	(877)
Intercompany loan	**(17,329)**	(16,846)
Total equity (negative equity)	**$ (18,015)**	$ (17,377)
Attributable to non-controlling interests	**$ (8,756)**	$ (8,087)

The share of the NCI in PRDT's statement of financial position represents an asset on the Company's consolidated statement of financial position.

Summarized statement of operations of PRDT:

Year ended December 31	**2021**	2020	2019
Royalty revenues	**$ 565**	$ 572	$ 585
Royalty expenses	**(88)**	(128)	(132)
Research and development expenses	**(244)**	(196)	(215)
Administration expenses	**(946)**	(1,506)	(896)
Impairment loss	**—**	—	(129)
Net loss and comprehensive loss	**$ (713)**	$ (1,258)	$ (787)
Attributable to non-controlling interests	**$ (669)**	$ (832)	$ (713)

(In thousands of Canadian dollars, except for per share amounts)

21. Capital management

The Company defines its capital as shareholders' equity including warrants presented as a liability and financial instruments of a long-term nature (including the current portion) less cash.

	December 31, 2021	December 31, 2020
Warrant liability	**$ 1,754**	$ 11,640
Lease liabilities	**22,471**	33,452
Provisions	**22,195**	**—**
Long-term debt	**38,311**	40,532
Total equity	**33,881**	15,012
Cash	**(108,490)**	(45,075)
Total capital	**$ 10,122**	$ 55,561

The Company manages its capital resources to fund the growth and development of its business and to ensure it has sufficient liquidities to support the working capital required to maintain its ability to continue as a going concern and to pay long-term obligations upon maturity. The Company monitors its ability to meet its financial obligations and evaluates funding requirements by forecasting cash requirements. Financial covenants of existing debt agreements, including capital requirements (note 17) are reviewed by management on an ongoing basis to monitor compliance.

At the present time, the Company favors financing by issuing equity instruments in order to minimize future financial obligations, however it considers all sources of financing reasonably available, including but not limited to the issuance of equity instruments, debt and the sale of assets. The Company considers the cost of capital, the terms and conditions and the dilutive effect on shareholders when considering the different forms financings that it may prevail upon.

22. Revenues from continuing operations

	2021	2020	2019
Royalty revenues	**$ 565**	$ 572	$ 575
Rental revenue	**78**	152	170
	$ 643	$ 724	$ 745

All the rental revenues are generated from subleasing right-of-use assets.

(In thousands of Canadian dollars, except for per share amounts)

23. Supplemental information

a) Supplemental information regarding the consolidated statements of operations

i) Government assistance

For the years ended December 31, 2021 and 2020, the Company recognized, government grants in connection with the Canada Emergency Wage Subsidy program and the Canada Emergency Rent Subsidy program, two subsidies program created by the Government of Canada in 2020 in response to the COVID-19 pandemic that the Company benefits from. Following the sale of its plasma-derived business in the middle of the second quarter of 2021, the Company was no longer eligible to these programs.

The Company also recognized research and development tax credits during the years ended December 31, 2021 and 2020. These grants were recorded as a reduction of salary expenses and other related charges and are recognized as follows in the consolidated statement of operations:

Year ended December 31	**2021**	2020	2019
Government grants recognized in research and development expenses, continuing operations:			
Salary subsidy	**$ 372**	$ 1,017	$ —
Rent subsidy	**140**	108	—
Research and development tax credits	**124**	426	572
	$ 636	$ 1,551	$ 572
Government grants recognized in administration expenses, continuing operations:			
Salary subsidy	**$ 325**	$ 1,457	$ —
Rent subsidy	**86**	63	—
	$ 411	$ 1,520	**$ —**
Government grants recognized in loss from discontinued operations:			
Salary subsidy	**$ 2,502**	$ 4,758	$ —
Rent subsidy	**682**	426	—
Research and development tax credits	**116**	1,332	—
	$ 3,300	$ 6,516	**$ —**

ii) Finance costs

Year ended December 31	**2021**	2020	2019
Interest accretion on long-term debt	**$ 4,388**	$ 2,209	$ 7,874
Amortization of fees for credit facility	**—**	—	10
Financing fees on warrant liability	**—**	709	—
Interest expense on provisions	**90**	—	—
Other interest expense, transaction and bank fees	**413**	485	594
Interest expense on lease liabilities	**3,754**	6,030	7,068
Interest income	**(73)**	(451)	(753)
	$ 8,572	$ 8,982	$ 14,793

The table above includes financing costs from continuing and discontinued operations. Financing costs from discontinued operations for the years ended December 31, 2021, 2020 and 2019 were $2,242, $6,083 and $7,926, respectively, and mainly represented interest expense on lease liabilities (note 6).

(In thousands of Canadian dollars, except for per share amounts)

iii) Employee compensation expense

Year ended December 31	2021	2020	2019
Wages and salaries	**$ 19,731**	$ 32,410	$ 48,846
Employer's benefits	**3,201**	5,443	8,263
Share-based payments expense	**4,252**	6,234	22,030
	$ 27,184	$ 44,087	$ 79,139

The table above includes employee compensation expense from continuing and discontinued operations. Employee compensation expenses from discontinued operations for the year ended December 31, 2021, 2020 and 2019 were $9,958, $23,146 and $40,536, respectively.

b) Information by geographic area

i) Capital, intangible and right-of-use assets by geographic area

	2021	2020
Canada	**$ 10,041**	$ 28,231
United Kingdom	**567**	2,092
United States	**—**	12,517
	$ 10,608	$ 42,840

ii) Revenues by location from continuing operations

	2021	2020	2019
Canada	**78**	152	170
United Kingdom	**565**	572	575
	$ 643	$ 724	$ 745

Revenues are attributed to countries based on the location of the third party.

24. Pension Plan

The Company maintains a defined contribution pension plan for its permanent employees. The Company matches the contributions made by employees who elect to participate in the plan up to a maximum percentage of their annual salary. The Company's contributions recognized as an expense, for continuing and discontinued operations in aggregate, for the year ended December 31, 2021 amounted to $598 ($1,055 and $1,495 for the years ended December 31, 2020 and 2019, respectively).

25. Impairment losses

2021

During the quarter ended June 30, 2021, the Company decided it would not be moving fezagepras into a Phase 2 clinical study in Idiopathic Pulmonary Fibrosis or IPF, and a phase 1a/2b study in hypertriglyceridemia following its analysis of the interim PK results from the ongoing fezagepras phase 1 MAD clinical trial. As a result of these decisions which were considered impairment indicators, the Company recorded an impairment on the carrying value of the intangible assets for the related patents of $341 reducing their value to their estimate recoverable value of $nil. Other fezagepras patents were unaffected by the above decisions.

2020

At the end of 2020, in reviewing its portfolio of compounds in the small molecule therapeutics segment, the Company identified impairment indicators for certain patents. One of the patent families impaired concerned a molecule that had entered into a phase 1 clinical trial in 2019 that was subsequently discontinued after the review of the pharmacokinetic data for the first three cohorts obtained. Following additional pre-clinical studies conducted in 2020 to further the Company's understanding of the mechanism of action, or MOA, lead to findings that the MOA included engaging a receptor which has been known in other products which engage the same receptor to occasionally cause undesirable side effects. Subsequently, management decided that the preclinical and clinical development activities associated with demonstrating that such molecule did not induce such side effects would be both time-consuming and costly and therefore the future development has been suspended. Another patent family impaired concerned another molecule that is licensed for development with a third party, whose research and development work we believe to be delayed from the agreed upon timelines and is unlikely to perform significant development in the near future. Further, the development of another compound was deprioritized, as the Company wishes to prioritize development of its lead compound fezagepras, as well as GPR84 and OXER1 drug candidates, which led to the impairment of the related patents. These small molecules patents were written down to their net recoverable amount of $nil, as both the FVLCD and the value in use were determined to be insignificant, resulting in an impairment of $1,072 for the year ended December 31, 2020 (note 12). During the year, the Company also recorded software impairments amounting to $15 (note 12).

2019

In reviewing its portfolio of compounds in the small molecule therapeutics segment, the Company identified compounds that where not within the areas of fibrosis on which it intends to focus and evaluated the net recoverable value of those related patents as $nil, determined as the fair value less cost of disposal using a market approach. An impairment on intangible assets of $634 was recognized for the year ended December 31, 2019.

As a result of the bioseparations business sale, some intellectual property including patents retained by the company are no longer expected to be developed. The company evaluated the net recoverable value of those patents is $nil, using a FVLCD using a market approach. An impairment on intangible assets of $127 was recognized for the year ended December 31, 2019.

(In thousands of Canadian dollars, except for per share amounts)

26. Income taxes

The income tax expense (recovery) reported in the consolidated statement of operations for the years ended December 31, 2021, 2020 and 2019 are as follows:

	2021	2020	2019
Current income tax expense (recovery)	**$ —**	$ (144)	$ (336)
Deferred income tax expense (recovery)	**118**	(65)	111
Income tax expense (recovery) from continuing operations	**118**	(209)	(225)
Current income tax expense (recovery) from discontinued operations (note 6)	**1**	8	53
Deferred income tax expense (recovery) from discontinued operations (note 6)	**—**	—	(24)
Total income tax expense (recovery)	**$ 119**	$ (201)	$ (196)

The following table provides a reconciliation of the income tax expense (recovery) calculated at the combined statutory income tax rate to the income tax expense (recovery) for both continuing and discontinued operations, recognized in the consolidated statements of operations.

	2021	2020	2019
Net loss before tax from continuing operations	**$ (44,945)**	$ (49,230)	$ (150,897)
Net income before tax from discontinued operations	**57,277**	(69,728)	(56,052)
Combined Canadian statutory income tax rate	**26.5%**	26.5%	26.6%
Income tax expense (recovery) at combined income tax rate	**3,268**	(31,524)	(55,048)
Increase (decrease) in income taxes resulting from:			
Unrecorded potential tax benefit arising from current-period losses and other deductible temporary differences	**1,658**	33,238	31,962
Effect of tax rate differences in foreign subsidiaries	**9,756**	1,101	4,989
Non-deductible or taxable items	**(6,149)**	(157)	(696)
Change in tax rate	**(5,354)**	(1,455)	1,609
Non-deductible loss (taxable gain) on debt renegotiation	**—**	—	24,572
Research and development tax credit	**(3,012)**	(494)	(740)
Non-taxable gain on disposition of subsidiary (note 6)	**—**	(896)	(6,903)
Other	**(48)**	(14)	59
Income tax expense (recovery)	**$ 119**	$ (201)	$ (196)

The following table presents the deferred tax assets (recoveries) related to R&D expenditures at December 31, 2021 and 2020.

	2021	2020
Balance - beginning of year	**$ (572)**	$ (507)
Credited to profit and loss	**118**	(65)
Balance - end of year	**$ (454)**	$ (572)

(In thousands of Canadian dollars, except for per share amounts)

Available temporary differences not recognized at December 31, 2021 and 2020 are as follows:

		2021		2020
Tax losses (non-capital)	**$**	**371,146**	$	569,542
Tax losses (capital)		**185,085**		305
Unused research and development expenses		**25,170**		84,556
Undeducted financing expenses		**16,914**		27,053
Interest expenses carried forward		**22,616**		32,475
Trade and other payable		**22,592**		1,640
Capital assets		**4,575**		3,392
Intangible assets		**2,578**		68,329
Start-up expense		**1,908**		5,358
Unrealized loss on exchange rate		—		5,430
Lease obligations		**21,583**		15,494
Other		**51**		1,071
	$	**674,218**	$	814,645

At December 31, 2021, the Company has non-capital losses of $439,706 of which $371,146 are available to reduce future taxable income for which the benefits have not been recognized. These non-capital losses expire at various dates from 2022 to 2041 except for the non-capital losses in the United Kingdom and US losses that arose after 2017 which do not expire. Capital losses arising in Canada can only be utilized to shelter future capital gains. At December 31, 2021, the Corporation also has federal unused research and development expenses of $33,283 (provincial $17,552), of which $31,570 are available to reduce future taxable income for which the benefits have not been recognized. These expenses can be carried forward indefinitely.

At December 31, 2021, the Corporation also has unused federal tax credits available to reduce future income tax in the amount of $8,980 expiring between 2024 and 2041. Those credits have not been recorded and no deferred income tax assets have been recognized in respect to those tax credits.

(In thousands of Canadian dollars, except for per share amounts)

The unused non-capital losses expire as indicated in the table below:

	Canada		Foreign
At December 31, 2021	Federal	Provincial	Countries
Losses carried forward expiring in:			
2027	$ 3,510	$ 3,495	$ —
2028	—	—	$ —
2029	—	—	—
2030	—	—	—
2031	—	—	—
2032	1,001	995	—
2033	4,610	4,606	—
2034	7,760	9,807	—
2035	12,565	12,563	—
2036	14,468	22,678	—
2037	7,393	7,394	—
2038	7,003	6,595	—
2039	26,441	26,305	—
2040	37,884	37,751	—
2041	39,933	39,904	—
	$ 162,568	$ 172,093	$ —
Not expiring - UK	—	—	270,144
Not expiring - US (post 2017) [1)]	—	—	2,821
	$ 162,568	$ 172,093	$ 272,965

[1)] US tax rules impose restrictions that will impact how $114,107 of losses are available to shelter income in future taxation years. As a result, approximately $111,286 of losses will no longer be available to the company and are not presented in the available tax loss table presented above.

27. Basic and diluted earnings per share

The Company presents basic and diluted earnings per share, or EPS, data for its common shares. Basic EPS is calculated by dividing the profit or loss attributable to common shareholders of the Company by the weighted average number of common shares outstanding during the period.

For the years ended December 31, 2021, 2020 and 2019, all warrants, stock options and RSU were anti-dilutive since the Company reported net losses from continuing operations. The secured convertible debentures issued in 2020 and subsequently converted into common shares in 2021 were also anti-dilutive during the period they were outstanding.

The numbers for the average basic and diluted shares outstanding presented in the consolidated statements of operations for the year ended December 31, 2019 have been adjusted in order to reflect the effect of the bonus element of the Rights Offering that occurred in June 2019 (note 19a).

(In thousands of Canadian dollars, except for per share amounts)

28. Related party transactions

Balances and transactions between the Company and its subsidiaries, which are related parties of the Company, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Company and other related parties are disclosed below and in other notes according to the nature of the transactions. These transactions have been recorded at the exchange amount, meaning the amount agreed to between the parties.

At December 31, 2021 and 2020, a former CEO had a balance of $283 and $170, respectively, owing to the Company under a tax equalization program, the amounts to be repaid once a refund is received from the taxation authority for each of the two years covered by the program.

All material transactions with SALP are disclosed in notes 16, 17, 18a, 19a, 19c, and 33 where the particular transactions are disclosed, and otherwise in this note.

During the year ended December 31, 2021, the Company recorded an interest expense and paid interest on the loan with its parent, SALP, of $4,222 and of $3,945, respectively ($2,121 and $1,879, respectively, for the year ended December 31, 2020).

During the year ended December 31, 2021, the Company also recorded and paid legal expenses of $326 and of $181 respectively ($nil for the year ended December 30, 2020), incurred by SALP that it is required to reimburse pursuant to the subscription agreement signed with SALP on April 14, 2019. On October 1, 2021, the Company entered into a forbearance agreement with SALP and Thomvest to forbear the reimbursement of such legal fees incurred between October 1, 2021 and June 30, 2022, until the latter date.

In February 2022, the Company repaid its loan with SALP (note 33).

29. Compensation of key management personnel

The Company's key management personnel comprise the external directors, officers and executives which included 16 individuals in 2021, 20 individuals in 2020 and 28 individuals in 2019. The remuneration of the key management personnel during the years ended December 31, 2021 and 2020 was as follows:

	2021	2020	2019
Current employee benefits[1)]	**$ 5,466**	$ 6,153	$ 10,083
Pension costs	**78**	115	267
Share-based payments	**4,351**	4,917	16,842
Termination benefits	**406**	319	2,919
	$ 10,301	$ 11,504	$ 30,111

1) Current employee benefits include salaries, bonuses, other employee benefits other than those listed in the table and director fees paid in cash.

30. Commitments

In the normal course of business, the Company enters into license agreements for the market launching or commercialization of products. Under a royalty stream agreement entered into January 2022, the Company has made a minimum upfront payment of $400 which can be used to reduce future royalty payments calculated as a low-single digit percentage of net sales on products and a low-single digit percentage of license revenues in regard to certain small molecule product candidates targeted by the agreement. A licensing agreement requires a royalty calculated as a low-single digit percentage of net sales on products for a certain small molecule drug candidate. Under licensing agreements pertaining to the Company's former bioseparations business, the Company must pay royalties ranging from a low-single digit to a mid-double digit percentage on the royalty revenues it earns from a sub-licensing agreement.

At December 31, 2021, SALP had the right to receive, under a royalty stream agreement, minimum royalty payments (note 18) and a 2% royalty on future revenues relating to patents of a specified small molecule product candidate and analogues. The obligations under this royalty agreement were secured by all the assets of the Company until the expiry of the last patent covered by this agreement. In the case where royalties based on revenues became payable, the minimum royalty previously paid would be deducted from future remittances. In February 2022, the royalty stream agreement was terminated (note 33).

31. Legal proceedings

The Company is, in the course of its business, subject to lawsuits and other claims. On April 15, 2019, the Company announced its intention to enter into a series of related arrangements to restructure its outstanding indebtedness, reduce its interest and certain other payment obligations, and raise sufficient cash to build a robust balance-sheet for the next phase of its development (collectively, the "Refinancing Transactions").

On March 2, 2021, Liminal was served with an action instituted by multiple individual shareholder plaintiffs (the "Plaintiffs") against Liminal, SALP, Thomvest, Consonance Capital Management LP ("Consonance"), as well as the directors (the "Directors") that were on the Company's Board on March 31, 2019 or on April 15, 2019 and certain officers of the Company (the "D&Os", together with Liminal, SALP, Thomvest and Consonance, the "Defendants"). Such action was publicly disclosed on March 24, 2021. On November 2, 2021, Liminal received service of an amended proceeding.

The Plaintiffs's request in damages has gone from almost $700 million initially to almost $950 million in damages, approximately $905 million of which is based on the loss of future value of the Company's shares.

The Company believes that the Plaintiffs' claims are completely without merit and intends to vigorously defend itself. Defense and settlement costs associated with such lawsuits and claims can be substantial, even when these lawsuits and claims have no merit. Due to the inherent uncertainty of the litigation process, the resolution of any particular legal proceeding could have an adverse effect on the Company's operating results or financial performance. No provisions have been recorded in the interim financial statements in regards to these claims.

32. Financial instruments and financial risk management

a) Fair value

As at December 31, 2021, the fair value of financial liabilities for which fair value disclosure is required include the royalty payment obligation, the license acquisition payment obligations and the long-term debt. The fair value of those liabilities approximate the carrying amount of such instruments, except for the long-term debt at December 31, 2021, where the fair value of the debt was estimated at $39,132 while the carrying amount was $38,311 (at December 31, 2020 the fair value was estimated at $41,922 while the carrying amount was $40,532).

The fair value of the long-term debt at December 31, 2021 was calculated using a discounted cash flow model and the market interest rates specific to the term of the debt instruments of 10.47% (2020 - 10%).

Fair value hierarchy

Financial instruments recorded at fair value on the consolidated statements of financial position are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Level 1 – valuation based on quoted prices observed in active markets for identical assets or liabilities.

Level 2 – valuation techniques based on inputs that are quoted prices of similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; inputs other than quoted prices used in a valuation model that are observable for that instrument; and inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – valuation techniques with significant unobservable market inputs.

A financial instrument is classified to the lowest level of the hierarchy for which a significant input has been considered in measuring fair value.

Cash and restricted cash are considered to be level 1 fair value measurements.

The long-term deposits, royalty payment obligation, license acquisition payment obligations, provisions and long-term debt are level 2 measurements.

The warrant liability is considered to be a level 3 measurements. Further discussion regarding assumptions used in determining its fair value are discussed in notes 3 and 16.

b) Financial risk management

The Company has exposure to credit risk, liquidity risk and market risk. The Company's Board of Directors has the overall responsibility for the oversight of these risks and reviews the Company's policies on an ongoing basis to ensure that these risks are appropriately managed.

Credit risk:

Credit risk is the risk of financial loss to the Company if a customer, partner or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's cash and receivables. The carrying amount of the financial assets represents the maximum credit exposure.

(In thousands of Canadian dollars, except for per share amounts)

The Company's exposure to credit risk is generally limited since it has limited revenues and thus limited accounts receivable. Liminal mitigates credit risk through a credit risk assessment, when credit is granted and subsequently at each reporting period.

Following the sale of its bioseparations business and its plasma-derived business, the Company no longer has product sales and as such the Company's exposure to customer credit risk is limited.

Liquidity risk:

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages its liquidity risk by continuously monitoring forecasts and actual cash flows. The Company's current liquidity situation is discussed in note 1.

The following table presents the contractual maturities of the financial liabilities as of December 31, 2021:

		Contractual Cash flows				
	Carrying amount	**Less than 1 year**	**2-3 years**	**4 - 5 years**	**More than 5 years**	**Total**
Accounts payable and accrued liabilities [1]	$ 7,343	$ 7,343	$ —	$ —	$ —	$ 7,343
Long-term portion of royalty payment obligations	98	—	51	51	197	299
Lease liabilities	22,471	7,369	10,629	8,285	—	26,283
Provisions	22,195	3,961	9,094	9,544	—	22,599
Long-term debt [2]	38,311	3,945	44,297	—	—	48,242
	$ 90,418	$ 22,618	$ 64,071	$ 17,880	$ 197	$ 104,766

[1] Short-term portions of the royalty payment obligations and of other employee benefit liabilities are included in the account payable and accrued liabilities.

[2] The Company has fully repaid its long-term debt in February 2022 (note 33).

Market risk:

Market risk is the risk that changes in market prices, such as interest rates and foreign exchange rates, will affect the Company's income or the value of its financial instruments.

i) Interest risk

The Company's interest-bearing financial liabilities have fixed rates and as such, there is limited exposure to changes in interest payments as a result of interest rate risk. In February 2022, the Company fully repaid its interest bearing long-term debt (note 33).

(In thousands of Canadian dollars, except for per share amounts)

ii) Foreign exchange risk:

The Company is exposed to the financial risk related to the fluctuation of foreign exchange rates. The Company has had operations and suppliers in the U.S. and the U.K. during the past years and therefore a portion of its expenses incurred are in USD and in GBP. The majority of the Company's revenues from the sale of products in 2021 and 2020, that are part of its discontinued operations were in USD which served to mitigate a portion of the U.S. foreign exchange risk relating to the expenditures. In 2021, the proceeds received from the divestment of its discontinued operations (note 6) were in USD resulting in an increased exposure to the USD which is partially mitigated by expenditures denominated in USD from its continuing operations. Financial instruments that have exposed the Company to foreign exchange risk have been cash, receivables, trade and other payables, lease liabilities, license payment obligations. The Company manages foreign exchange risk by holding foreign currencies it received to support forecasted cash outflows in foreign currencies.

As at December 31, 2021 and 2020, the Company's net exposure to currency risk through financial assets and financial liabilities denominated respectively in USD and GBP was as follows:

	2021		2020	
Exposure in USD	**Amount in USD**	**Equivalent in full CAD**	Amount in USD	Equivalent in full CAD
Cash	**78,045,915**	**99,094,899**	17,281,338	22,018,153
Accounts receivable	**185,954**	**236,106**	886,211	1,129,121
Other long-term assets	**—**	—	45,428	57,880
Accounts payable and accrued liabilities	**(951,284)**	**(1,207,845)**	(6,023,877)	(7,675,022)
Lease liabilities	**—**	**—**	(10,918,525)	(13,911,293)
Other long-term liabilities	**(77,075)**	**(97,862)**	(162,000)	(206,404)
Long-term derivatives	**(1,381,603)**	**(1,754,221)**	—	—
Net exposure	**75,821,907**	**96,271,077**	1,108,575	1,412,435

	2021		2020	
Exposure in GBP	**Amount in GBP**	**Equivalent in full CAD**	Amount in GBP	Equivalent in full CAD
Cash	**2,832,439**	**4,859,049**	4,619,225	8,032,832
Accounts receivable	**134,605**	**230,914**	230,588	400,993
Accounts payable and accrued liabilities	**(1,026,984)**	**(1,761,791)**	(983,697)	(1,710,649)
Lease liabilities	**(203,186)**	**(348,566)**	(271,623)	(472,352)
Net exposure	**1,736,873**	**2,979,606**	3,594,493	6,250,824

Based on the above net exposures as at December 31, 2021, and assuming that all other variables remain constant, a 10% depreciation or appreciation of the CAD against the USD would result in a decrease or an increase of the consolidated total comprehensive loss of approximately $9,627 while a 10% depreciation or appreciation of the CAD against the GBP would result in a decrease or an increase of the consolidated total comprehensive loss of approximately $298. If we exclude cash denominated in USD from our net exposure at December 31, 2021, a 10% depreciation or appreciation of the CAD against the USD would result in a decrease or an increase of the consolidated net loss of approximately $282. The Company has not hedged its exposure to currency fluctuations.

33. Subsequent event

On February 15, 2022, the Company repaid the entirety of the first and second term loans, for an aggregate amount of $39,123 (note 17), thus terminating the consolidated loan agreement with SALP and releasing of the security interests granted by the Company over its assets pursuant to the loan agreement and related documents. The repayment also terminated the royalty stream agreement with SALP resulting in the derecognition of the royalty payment obligation to SALP (note 18a) and the 168,735 warrants held by SALP, having an exercise price of $15.21 per common share (note 19c), were cancelled. The Company is presently evaluating the accounting for these transactions.