Consolidated Financial Statements
(Expressed in Canadian Dollars)

KANE BIOTECH INC.

Years ended December 31, 2022 and 2021

Independent Auditor's Report

To the Shareholders of Kane Biotech Inc.:

Opinion

We have audited the consolidated financial statements of Kane Biotech Inc. (the "Company"), which comprise the consolidated statements of financial position as at December 31, 2022 and December 31, 2021, and the consolidated statements of loss and other comprehensive loss, changes in deficit and cash flows for the years then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consoldiated financial statements present fairly, in all material respects, the consolidated financial position of the Company as at December 31, 2022 and December 31, 2021, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards.

Basis for Opinion

We conducted our audits in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audits of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Material Uncertainty Related to Going Concern

We draw attention to Note 2(c) in the financial statements, which indicates that the Company incurred operating losses and negative cash flows from operating activities during the year ended December 31, 2022. As stated in Note 2(c), these events or conditions, along with other matters as set forth in Note 2(c), indicate that a material uncertainty exists that may cast significant doubt on the Company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

In addition to the matter described in the Material Uncertainty Related to Going Concern section, we have determined the matters described below to be the key audit matters to be communicated in our report.

MNP LLP
True North Square - 242 Hargrave Street, Suite 1200, Winnipeg MB, R3C 0T8 1.877.500.0795 T: 204.775.4531 F: 204.783.8329

Intangible assets

Key Audit Matter Description

Impairment of intangible assets

Given the changing nature of the industry in which the Company operates, there is a risk that there could be a material impairment to intangible asset balances. The determination as to whether or not there is impairment relating to the assets of a Cash Generating Unit ("CGU") involves significant judgment about the future cash flows and plans for these assets and CGUs. Refer to Note 3 Significant Accounting Policies and Note 9 Intangible Assets for disclosures regarding the Company's policy for accounting for intangible assets and further information on their composition.

Audit Response

We responded to this matter by performing procedures over the valuation of intangible assets. Our audit work in relation to this included, but was not restricted to, the following:

- We obtained an understanding of management's impairment analysis process;
- We obtained and evaluated management's assessment of impairment of intangible assets including their calculation of the recoverable amount of its CGUs;
- We assessed the reasonableness of management's cash flow projections used in the impairment models as well as the reliability of their historical cash flow forecasts;
- We developed a point estimate for the recoverable amount of the intangible assets through preparing an independent calculation using projected cashflows specific to the intangible assets;
- We involved our valuation specialists to assess the reasonableness of key assumptions including the discount rate; and
- We assessed the appropriateness and completeness of related disclosures in the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises Management’s Discussion and Analysis.

Our opinion on the consolidateed financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audits of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audits or otherwise appears to be materially misstated. We obtained Management’s Discussion and Analysis prior to the date of this auditor’s report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Company to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits and significant audit findings, including any significant deficiencies in internal control that we identify during our audits.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Matthew S. Pilloud.

Winnipeg, Manitoba

MNP LLP

April 19, 2023

Chartered Professional Accountants

KANE BIOTECH INC.

Consolidated Statement of Financial Position

	Note		December 31, 2022		December 31, 2021
Assets					
Current assets:					
Cash and cash equivalents		**$**	**1,104,901**	$	1,153,090
Trade and other receivables	**6,17**		**582,089**		595,608
Inventory	**7**		**763,471**		519,228
Capital contributions receivable - current	**4**		**475,261**		475,261
Other current assets			**171,023**		137,223
Total current assets			**3,096,745**		2,880,410
Non-current assets:					
Property and equipment	**8**		**1,252,469**		1,435,959
Intangible assets	**9**		**826,452**		828,643
Capital contributions receivable	**4**		**444,169**		859,281
Loan receivable	**18(b)**		**-**		130,000
Total non-current assets			**2,523,090**		3,253,883
Total assets		**$**	**5,619,835**	$	6,134,293
Liabilities and Shareholders' Deficit					
Current liabilities:					
Accounts payable and accrued liabilities	**10**	**$**	**1,847,695**	$	2,057,774
Deferred license revenue - current	**5**		**207,644**		143,488
Due to related party	**11**		**8,066**		8,066
Loan payable	**12(a)**		**4,000,000**		2,379,040
Government loans - current	**12(b)**		**173,911**		-
Lease liability - current	**13**		**104,246**		132,641
Total current liabilities			**6,341,562**		4,721,009
Non-current liabilities:					
Deferred license revenue	**5**		**837,301**		777,028
Government loans	**12(b)**		**1,595,295**		1,115,635
Lease liability	**13**		**983,388**		1,087,635
Total non-current liabilities			**3,415,984**		2,980,298
Shareholders' Deficit					
Share capital	**15(b)**		**23,132,932**		22,156,228
Contributed surplus			**7,444,668**		5,505,684
Warrants	**15(e)**		**-**		1,662,385
Minority interest in Stem Animal Health Inc.			**2,384,862**		2,318,970
Deficit			**(37,100,173)**		(33,210,281)
Total			**(4,137,711)**		(1,567,014)
Going concern	**2(c)**				
Commitments and contingencies	**16**				
Subsequent events	**24**				
Total liabilities and shareholders' deficit		**$**	**5,619,835**	$	6,134,293

The notes on pages 5 to 33 are an integral part of these consolidated financial statements.

KANE BIOTECH INC.

Consolidated Statement of Loss and Comprehensive Loss

	Note		Year ended December 31, 2022		Year ended December 31, 2021
Revenue					
License	**4,5**	**$**	**674,919**	$	136,884
Royalty			**257,613**		146,178
Sales of goods and services			**1,735,820**		1,324,713
Total Revenue			**2,668,352**		1,607,775
Cost of sales-sales of goods and services	**7**		**1,255,123**		1,039,334
Gross Profit			**1,413,229**		568,441
Expenses					
General and administration	**17, 18(b)**		**3,723,046**		4,074,748
Research	**17**		**1,053,992**		1,377,250
			4,777,038		5,451,998
Loss from operations			**(3,363,809)**		(4,883,557)
Other expenses (income):					
Finance income			**(100,351)**		(121,929)
Finance costs			**822,213**		416,057
Fair value adjustment - government loans			**(254,898)**		(323,798)
Foreign exchange gain			**(6,773)**		(3,975)
Net other expenses (income)			**460,191**		(33,645)
Loss and comprehensive loss for the period		**$**	**(3,824,000)**	$	(4,849,912)
Income (loss) and comprehensive income (loss) attributable to:					
Shareholders			**(3,889,892)**		(4,604,566)
Minority interest			**65,892**		(245,346)
Loss and comprehensive loss for the period			**(3,824,000)**		(4,849,912)
Basic and diluted loss per share for the period	**15(f)**	**$**	**(0.03)**	$	(0.04)

The notes on pages 5 to 33 are an integral part of these consolidated financial statements.

KANE BIOTECH INC.

Consolidated Statement of Changes in Deficit

	Note	Share Capital	Contributed Surplus	Warrants	Minority Interest	Deficit	Total
Balance as of January 1, 2021		$ 20,858,419	$ 4,412,956	$ 1,844,760	$ 2,564,316	$ (28,605,715)	$ 1,074,736
Loss and comprehensive loss for the period					(245,346)	(4,604,566)	(4,849,912)
Transactions with owners, recorded directly in equity							
Share based payments	15(c,d)	-	1,092,162	-	-	-	1,092,162
Warrants exercised	15(e)	1,297,809	(50,232)	(131,577)	-	-	1,116,000
Warrants expired	15(e)	-	50,798	(50,798)	-	-	-
Total transactions with owners		1,297,809	1,092,728	(182,375)	-	-	2,208,162
Balance as of December 31, 2021		$ 22,156,228	$ 5,505,684	$ 1,662,385	$ 2,318,970	$ (33,210,281)	$ (1,567,014)
Income (loss) and comprehensive income (loss) for the period					65,892	(3,889,892)	(3,824,000)
Transactions with owners, recorded directly in equity							
Issuance of common shares	15(b)	973,704	-	-	-	-	973,704
Share based payments	15(c,d)	-	279,599	-	-	-	279,599
Restricted share units redeemed	15(d)	3,000	(3,000)	-	-	-	-
Warrants expired	15(e)	-	1,662,385	(1,662,385)	-	-	-
Total transactions with owners		976,704	1,938,984	(1,662,385)	-	-	1,253,303
Balance as of December 31, 2022		$ 23,132,932	$ 7,444,668	$ -	$ 2,384,862	$ (37,100,173)	$ (4,137,711)

KANE BIOTECH INC.
Consolidated Statement of Cash Flows

	Note		Year ended December 31, 2022		Year ended December 31, 2021
Cash provided by (used in):					
Operating activities:					
Loss and comprehensive loss for the period		$	**(3,824,000)**	$	(4,849,912)
Adjustments for:					
Provision for loan receivable	**18(b)**		**178,203**		-
Depreciation of property and equipment	**8**		**186,180**		138,988
Amortization of intangible assets	**9**		**77,190**		48,982
Derecognition of property and equipment	**8**		**9,860**		-
Derecognition of intangible assets	**9**		**-**		66,172
Derecongnition of lease	**13**		**(5,205)**		-
Accretion income	**4**		**(84,888)**		(112,046)
Interest on loans and finance leases	**12,13**		**772,864**		357,723
Fair value adjustment - government loan	**12(b)**		**(254,898)**		(323,798)
Share based compensation	**15(c,d)**		**279,599**		1,092,162
Change in the following:					
Trade and other receivables			**(14,684)**		44,400
Inventory			**(244,243)**		(47,294)
Other current assets			**(33,800)**		6,261
Accounts payable and accrued liabilities			**(210,079)**		782,268
Deferred license revenue	**5**		**124,429**		506,904
Cash used in operating activities			**(3,043,472)**		(2,289,190)
Financing activities:					
Capital contributions received for minority interest	**4**		**500,000**		500,000
Issuance of common shares	**15(b)**		**973,704**		-
Interest paid on loans and finance leases	**12,13**		**(620,595)**		(54,664)
Warrants exercised	**15(e)**		**-**		1,116,000
Repayment of due to related party	**11**		**-**		(13,775)
Repayment of loan payable	**12(a)**		**(400,000)**		(450,000)
Proceeds from loan payable	**12(a)**		**2,100,000**		1,104,087
Proceeds from long-term government loans	**12(b)**		**677,160**		692,105
Repayment of lease liability	**13**		**(127,437)**		(85,851)
Cash provided by financing acivities			**3,102,832**		2,807,902
Investing activities:					
Purchase of property and equipment	**8**		**(12,550)**		(186,673)
Advances of loan receivable	**18(b)**		**(20,000)**		(20,000)
Additions to intangible assets	**9**		**(74,999)**		(166,872)
Cash used in investing activities			**(107,549)**		(373,545)
Increase (decrease) in cash			**(48,189)**		145,167
Cash, beginning of period			**1,153,090**		1,007,923
Cash, end of period		$	**1,104,901**	$	1,153,090

The notes on pages 5 to 33 are an integral part of these consolidated financial statements.

1. Reporting entity:

Kane Biotech Inc. and its subsidiary STEM Animal Health Inc. (the "Company") is a biotechnology company engaged in the research, development and commercialization of technologies and products that prevent and remove microbial biofilms. The Company is domiciled and incorporated in Canada. Its registered office is 290-100 Innovation Drive, Winnipeg, Manitoba, Canada, R3T 6G2.

2. Basis of preparation of consolidated financial statements:

(a) Statement of compliance

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

The consolidated financial statements were authorized for issue by the Board of Directors on April 19, 2023.

(b) Basis of measurement

The consolidated financial statements have been prepared on the historical cost basis except for the following items:

- financial instruments at fair value at the issue date
- equity settled share-based payment awards are measured at fair value at the grant date

(c) Going concern

These consolidated financial statements have been prepared using IFRSs that are applicable to a going concern, which contemplates that the Company will continue in operation for the foreseeable future and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business. There is material uncertainty about the appropriateness of the use of the going concern assumption because the Company has experienced operating losses and net cash outflows from operations since inception and has not yet achieved profitability from the commercialization of its products which casts significant doubt on the Company's ability to continue as a going concern. For the year ended December 31, 2022, the Company had a loss and comprehensive loss of $3,824,000 and negative cash flow from operating activities of $3,043,472, and as of that date had a working capital deficit of $3,244,817 and deficit of $37,100,173.

The Company's future operations are completely dependent upon its ability to negotiate collaboration or licence agreements with upfront and milestone payments as well as royalties, generate product and services revenue, obtain grant funding and/or secure additional funds. While the Company is striving to achieve this, there is no assurance that such sources of funds will be available or obtained on favourable terms. If the Company cannot negotiate collaboration or licence agreements, generate product and services revenue, obtain grant funding, or if it cannot secure additional financing on acceptable terms, the Company will have to consider additional strategic alternatives. These may include, among other strategies, exploring the monetization of certain tangible and intangible assets as well as seeking to license assets, potential asset divestitures, winding up, dissolution or liquidation of the Company.

The ability of the Company to continue as a going concern and to realize the carrying value of its assets and discharge its liabilities and commitments when due is dependent on the successful completion of the actions taken or planned, some of which are described above, which management believes will mitigate the adverse conditions and events which raise doubt about the validity of the going concern assumption used in preparing these financial statements. There is no certainty that these and other strategies will be sufficient to permit the Company to continue as a going concern.

These consolidated financial statements do not reflect adjustments in the carrying values of the Company's assets and liabilities, revenue and expenses, and the statement of financial position classifications used, that would be necessary if the going concern assumption were not appropriate. Such adjustments could be material.

(d) Functional and presentation currency

The consolidated financial statements are presented in Canadian dollars, which is the Company's functional currency. All financial information presented has been rounded to the nearest dollar except where indicated otherwise.

2. Basis of preparation of consolidated financial statements (continued):

(e) Use of estimates and judgments

The preparation of these financial statements in conformity with IFRSs requires management to make significant judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements and information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial years are included in the following notes:

- Note 2(c) Going concern. The determination that the Company will continue as a going concern.
- Note 3(a) Revenue recognition. The determination of the exclusive right to access a license representing the primary performance obligation in the Company's license and distribution agreements as well as when milestone revenue becomes highly probable. The determination of the duration of a contract where renewal terms may exist.
- Note 3(c) Fair value of long-term government loans. The determination of the effective interest rate for measuring the fair value of loan advances when received and the estimated repayment term.
- Note (3d) Inventory. The determination of net realizable value for the purpose of assessing inventory impairment.
- Note 3(f)(i) Research and development costs. The determination of research and development expenditures that meet the criteria for capitalization.
- Note 3(g)(i) Impairment of financial assets. The calculation of expected credit losses related to trade and other receivables and loan receivable.
- Note 3(g)(ii) Impairment of non-financial assets. The determination that the Company has a single cash generating unit as the Company cannot clearly distinguish cash inflows that are largely independent of other cash flows specific to certain assets or technologies. The determination that the fair value of future net cash flows related to the Company's non-financial assets exceeds their carrying value per the financial statements.
- Note 3(h) Employee benefits. The estimated fair value of variable compensation for a key employee of STEM.
- Note 3(h)(ii) and Note 15(c), (d) and (e) Share-based payment transactions. The determination of the risk-free interest rate and expected volatility with respect to the assumptions used in the Black-Scholes option pricing model or Barrier option pricing model for the purpose of determining stock options expense for employee share-based compensation. The determination that the fair value of restricted share units is the closing price of the Company’s stock on the grant date.
- Note 3(m) Leases. The determination of the incremental borrowing rate where there is no rate implicit in the lease, by way of reference to the Company's incremental borrowing rate for a loan of similar security and term. The determination of the lease term when optional renewal periods exist and the determination of variable lease payments that should be excluded from the calculation of the right of use asset and lease liability.
- Note 4 Basis of consolidation. The determination of control of Stem Animal Health Inc.

(f) Basis of consolidation

Subsidiaries are entities controlled by the Company. The financial statements of subsidiaries are included in these financial statements from the date that control commences until the date that control ceases. Where necessary, adjustments are made to the financial statements of acquired subsidiaries to conform their accounting policies to those of the Company.

2. Basis of preparation of consolidated financial statements (continued):

Intercompany balances and transactions, and any realized or unrealized revenue and expenses arising from intercompany transactions, are eliminated in preparing these consolidated financial statements.

The Company has one subsidiary, STEM Animal Health Inc., which is 66.66% owned by the Company. The principal place of business is Winnipeg, Manitoba, Canada, and its functional currency is Canadian dollars.

3. Significant accounting policies:

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements.

(a) Revenue recognition

The Company has consistently applied accounting policies in accordance with IFRS 15 *Revenue from Contracts with Customers (“IFRS 15”)* to all periods presented in these consolidated financial statements. These policies are as follows:

(i) License and distribution agreement revenue

The Company has entered into exclusive license and distribution agreements for specific territories for which there may be non-refundable upfront payments, milestone payments based on achievement of certain milestones and royalties on related sales. Under the terms of these agreements in addition to the exclusive license rights, the Company may provide support, transfer of knowhow, marketing materials and efforts to increase the value of the license through introduction of new products or industry certifications. As these additional activities are not distinct and separable from the exclusive license rights, the primary performance obligation under the agreements has been determined to be a right to access the exclusive license. As a result, where non-refundable upfront payments are received or receivable, they are recognized over time on a straight-line basis over the contractual life of the agreement. Where milestone payments represent variable consideration, they are recognized as an adjustment to the transaction price of the contract when it is highly probable that a significant reversal of cumulative revenue recognized will not occur.

Royalties not subject to guaranteed minimum royalties are recognized as the related sales occur. Where guaranteed minimum annual royalties apply, the Company recognizes the minimum guaranteed royalty revenue over time and recognizes excess sales royalties as the related sales occur.

Sales based milestone payments are recognized as revenue only when the applicable sales target has been met.

(ii) Sales of goods and services

Revenue from the sales of goods and services, net of discounts, is recognized when control of those goods has been transferred to the customer or the related services have been rendered.

(b) Foreign currency transactions

Transactions in foreign currencies are translated at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are re-translated at the exchange rate at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate at the date of the transaction.

(c) Financial instruments

IFRS 9 Financial instruments contains three principal classification categories for financial instruments: measured at amortized cost, fair value through other comprehensive income (“FVOCI”) and fair value through profit or loss (“FVTPL”). IFRS 9 bases the classification of financial instruments on the contractual cash flow characteristics and the company’s business model for managing the financial asset.

Cash and cash equivalents, trade and other receivables, loan receivable, accounts payable and accrued liabilities, and interest and non-interest-bearing debt are all classified as amortized cost under this standard.

3. Significant accounting policies (continued):

The government loans are initially measured at fair value based on management's best estimate of the effective interest rate at initial recognition. The fair value of the Prairies Economic Development Canada ("PrairiesCan") loan is also based on the Company's estimate that the amount will be repayable over five years starting April 2023. The loans are subsequently measured at amortized cost.

The Company does not adjust for modifications to share purchase warrants classified as equity instruments that are not share based payments.

(d) Inventory

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted average method for the Company's subsidiary, STEM Animal Health Inc. and the first in first out (FIFO) method for its human health product inventory. The cost of finished goods and work in progress comprises raw materials, direct labour, and other direct costs. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and selling expenses. Obsolete, redundant, and slow-moving inventories are identified and written down to net realizable values.

(e) Property and equipment

(i) Recognition and measurement

Items of property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. When parts of an item of property and equipment have different useful lives, they are accounted for as separate items (major components) of property and equipment. The costs of the day-to-day servicing of property and equipment are recognized in the consolidated statement of loss and comprehensive loss in the period in which they are incurred.

(ii) Depreciation

Depreciation is recognized in profit or loss over the estimated useful lives of each part of an item of property and equipment in a manner which most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. The estimated useful lives and depreciation method for the current and comparative periods are as follows:

Asset	Basis	Rate
Computer and office equipment	Diminishing balance	20-30%
Scientific and manufacturing equipment	Diminishing balance	20%
Right-of-use assets	Straight-line	Over the term of the lease

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if necessary.

(f) Intangible assets

(i) Research and development

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in the consolidated statement of loss and comprehensive loss as incurred.

Development activities involve a plan or design to produce new or substantially improved products and processes. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Company intends to and has sufficient resources to complete development and to use or sell the asset. No development costs have been capitalized to date.

3. Significant accounting policies (continued):

(ii) Patents and trademarks

Costs incurred in obtaining a patent are capitalized and are amortized on a straight-line basis over the legal life of the respective patent once the patent has been issued. Trademarks have an indefinite life and are not amortized. Costs incurred in successfully obtaining a patent or trademark are measured at cost less accumulated amortization and accumulated impairment losses. The cost of servicing the Company's patents and trademarks is expensed as incurred.

(iii) Subsequent expenditures

Subsequent expenditures are capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditures are recognized in the consolidated statement of loss and comprehensive loss as incurred.

(g) Impairment

(i) Financial assets

At each reporting date, the Company assesses whether there is objective evidence that a financial asset is impaired.

If such evidence exists, the Company recognizes an impairment loss for financial assets. The carrying amount of the asset is reduced by this amount either directly or indirectly using an allowance account.

(ii) Non-financial assets

The carrying amount of long-lived non-financial assets, including intangible assets and property and equipment, is reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Intangible assets with indefinite lives and intangible assets not yet put into use are evaluated for impairment at least annually.

An impairment exists when the carrying value of an asset exceeds its recoverable amount, which is the higher of its fair value less costs to sell and its value in use. The fair value less costs to sell calculation is based on available data from observable market prices less incremental costs. The value in use calculation is based on a discounted cash flow model. These calculations require the use of estimates and forecasts of future cash flows. Qualitative factors, including market size and market growth trends, strength of customer demand and degree of variability in cash flows, as well as other factors, are considered when making assumptions about future cash flows and the appropriate discount rate. A change in any of the significant assumptions of estimates used to evaluate the underlying assets could result in a material change to the results of operations.

Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed, to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of amortization, if no impairment had been recognized. Write-downs because of impairment are recognized in research expense in the consolidated statement of loss and comprehensive loss.

(h) Employee benefits

(i) Short-term employee benefits

Short-term employee benefit obligations are expensed as the related services are provided.

3. Significant accounting policies (continued):

(ii) Share-based payment transactions

The grant date fair value of share-based payment awards granted to employees is recognized as a personnel expense, with a corresponding increase in equity, over the period that the employees unconditionally become entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market vesting conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

Share-based payment arrangements in which the Company receives goods or services as consideration for its own equity instruments are accounted for as equity-settled share-based payment transactions. In situations where equity instruments are issued and some or all of the goods or services received by the entity as consideration cannot be specifically identified, they are measured at the fair value of the share-based payment.

(i) Government grants

Grants are recognized in the consolidated statement of loss and comprehensive loss as deductions from the related expenditures when the grants become receivable based on the related conditions on criteria being met.

Grants that compensate the Company for the cost of an asset are recognized in the consolidated statement of loss and comprehensive loss as a reduction of expenses on a systematic basis over the useful life of the asset.

(j) Finance income and finance costs

Finance income comprises interest income on funds invested which is recognized as it accrues in profit or loss using the effective interest method. Finance costs are comprised of accretion expense on long-term borrowings, which are recognized in profit or loss using the effective interest method, as well as other costs incurred to secure loan financing. Foreign currency gains and losses are reported on a net basis.

(k) Income tax

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognized in net loss except to the extent that it relates to items recognized directly in equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss. Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. No deferred tax assets have been recognized to date.

Refundable scientific research and development tax credits, which are earned as a result of incurring qualifying research and development expenditures, are recorded as a reduction of the related expense when there is reasonable assurance that they will be realized. Non-refundable scientific research and development tax credits, which are also earned on qualifying research and development expenditures, are not recorded in the financial statements.

3. Significant accounting policies (continued):

(l) Earnings (loss) per share

The Company presents basic earnings per share (EPS) data for its common voting shares. Basic EPS is calculated by dividing the profit or loss attributable to common voting shareholders of the Company by the weighted average number of common voting shares outstanding during the period, adjusted for own shares held. Common voting share equivalents have been excluded from the calculation of diluted loss per share as their effect is anti-dilutive.

(m) Leases

The Company assesses whether a contract is, or contains, a lease by determining whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. A right-of-use asset and lease liability are recognized at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and estimated restoration costs, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. The lease payments are discounted using the implicit interest rate in the lease. If the rate cannot be readily determined, the Company's incremental rate of borrowing is used.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate or the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension, or termination option.

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

(n) New standards and interpretations, adopted and not yet adopted

Standards and interpretations adopted

As part of its 2018-2020 annual improvements to the IFRS standards process, the IASB issued an amendment to IFRS 9. The amendment clarifies the fees that 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. These fees include only those paid or received between the borrower and the lender, including fees paid or received by either the borrower or lender on the other's behalf. An entity applies the amendment to financial liabilities that are modified or exchanged on or after the beginning of the annual reporting period in which the entity first applies the amendment. The amendment is effective for annual reporting periods beginning on or after January 1, 2022. Effective January 1, 2022, the Company adopted the Amendments to IFRS 9 with no impact on its consolidated financial statements.

IAS 16 Property, Plant and Equipment has been amended for annual reporting periods beginning on after January 1, 2022 with early application permitted. The update outlines the accounting treatment for most types of property, plant and equipment. Property, plant and equipment is initially measured at its cost, subsequently measured either using a cost or revaluation model, and depreciated so that its depreciable amount is allocated on a systematic basis over its useful life. Effective January 1, 2022, the Company adopted the Amendments to IAS 16 with no impact on its consolidated financial statements.

IAS 37 Provisions, Contingent Liabilities and Contingent Assets has been amended for annual reporting periods beginning on after January 1, 2022 with early application permitted. The update outlines the accounting for provisions (liabilities of uncertain timing or amount), together with contingent assets (possible assets) and contingent liabilities (possible obligations and present obligations that are not probable or not reliably measurable). Effective January 1, 2022, the Company adopted the Amendments to IAS 37 with no impact on its consolidated financial statements.

3. Significant accounting policies (continued):

IFRS 3 Business Combinations has been amended for annual reporting periods beginning on or after January 1, 2022 with earlier application permitted. The update outlines the accounting when an acquirer obtains control of a business. Such business combinations are accounted for using the 'acquisition method', which generally requires assets acquired and liabilities assumed to be measured at their fair values at the acquisition date. Effective January 1, 2022, the Company adopted this amendment to IFRS 3 with no impact on its consolidated financial statements.

Standards and interpretations not yet adopted

Certain new standards, interpretations and amendments to existing standards issued by the IASB or the International Financial Reporting Interpretations Committee (IFRIC) that are not yet effective up to the date of issuance of the Company's financial statements are listed below.

IAS 1 Presentation of Financial Statements has been amended for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted. The update sets out the overall requirements for financial statements, including how they should be structured, the minimum requirements for their content and overriding concepts such as going concern, the accrual basis of accounting and the current/non-current distinction. The standard requires a complete set of financial statements to comprise a statement of financial position, a statement of profit or loss and other comprehensive income, a statement of changes in equity and a statement of cash flows. The Company is assessing the impact of adopting this amendment on its consolidated financial statements.

IAS 1 and IFRS Practice Statement 2 has been amended for annual reporting periods beginning on or after January 1, 2023 with earlier application permitted. The update sets out the requirements for disclosure of accounting policies, including an entity should discloses its material accounting policies instead of its significant accounting policies, and how an entity can identify a material accounting policy. The Company is assessing the impact of adopting this amendment on its consolidated financial statements.

Amendments to IAS1, issued in October 2022, require an entity to disclose, in specified circumstances, information in the notes that enables financial statement users to understand the risk that non-current liabilities with covenants could become repayable within 12 months after the reporting period. As part of the amendments, a provision was added to clarify that only covenants that an entity must comply with on or before the reporting date would affect a liability's classification as current or non-current, even if compliance with the covenant is only assessed after the entity's reporting date. The amendments are effective for annual periods beginning on or after January 1, 2024. The Company is currently assessing the impact of these amendments on its consolidated financial statements.

IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors has been amended for annual reporting periods on or after January 1, 2023 with earlier application permitted. The update is applied in selecting and applying accounting policies, accounting for changes in estimates and reflecting corrections of prior period errors. The standard requires compliance with any specific IFRS applying to a transaction, event or condition, and provides guidance on developing accounting policies for other items that result in relevant and reliable information. Changes in accounting policies and corrections of errors are generally retrospectively accounted for, whereas changes in accounting estimates are generally accounted for on a prospective basis. The Company is assessing the impact of adopting this amendment on its consolidated financial statements.

IAS 12 Deferred Tax related to Assets and Liabilities arising from a Single Transaction has been amended for annual reporting periods beginning on or after January 1, 2023 with early application permitted. The amendment narrows the scope of the initial recognition exemption so that it does, not apply to transactions that give rise to equal and offset temporary difference. As a result, companies will need to recognize a deferred tax asset and deferred tax liability for temporary difference arising on initial recognition of transactions such as leases. The Company is assessing the impact of adopting this amendment on its consolidated financial statements.

IFRS 16 leases has been amended for specifications on how to recognize, measure, present and disclose leases for annual reporting periods on or after January 1, 2024 with earlier application permitted. The standard provides a single lessee accounting model, requiring the recognition of assets and liabilities for all leases, unless the lease term is 12 months or less or the underlying assets has a low value. Lessor accounting however remains largely unchanged from IAS 17 and the distinction between operating and finance leases retained. The Company is assessing the impact of adopting this amendment on its consolidated financial statements.

4. Minority interest:

Effective September 28, 2020, the Company entered into subscription and license and distribution agreements with Animalcare Group PLC ("Animalcare") under which the parties formed STEM Animal Health Inc. ("STEM"), a company dedicated to treating biofilm-related ailments in animals.

Under the terms of the agreements, the Company created a new subsidiary, STEM, in which Animalcare will invest $3 million in installments payable to STEM over a period of 48 months, to acquire a 33.34% equity interest. STEM was established with a global license over the Company's existing range of animal health oral care products and in collaboration with Animalcare will also focus on the research and development of novel animal treatments based on biofilm targeting technology. Animalcare will have licensing rights over future STEM products in Europe and Asia and the option, for a period of six years, to acquire an additional 16.67% interest in the subsidiary for $4 million, payable to the Company.

Additionally, in exchange for Animalcare receiving the right to commercialize the Company's coactiv+™ and DispersinB® products in global veterinary markets outside the Americas, Animalcare will provide an initial payment to STEM of $500,000, which is due within 30 days of the anniversary of the effective date of the agreement, along with a series of potential payments payable to STEM linked to various commercial milestones to a combined maximum of $2 million along with ongoing royalties. STEM is recognizing the initial license fee on a straight-line basis over the 10-year life of the agreement.

Effective September 28, 2020, the Company transferred to STEM all of the required assets to operate its animal health business, in exchange for its 66.66% interest. The Company and STEM accounted for the transferred assets at book value. Animalcare has provided an initial capital contribution of $1 million to STEM with the remaining $2 million payable to STEM in instalments of $500,000 on each of the first four anniversary dates of the agreement. At initial recognition, using a discount rate of 7%, the Company determined the fair value of the future capital contributions receivable to be $1,693,606.

STEM received payments of $500,000 from Animalcare towards the capital contribution receivable in each of 2021 and 2022. As of December 31, 2022, the carrying value of capital contributions receivable is $919,430 (December 31, 2021 - $1,334,542).

The Company, which holds a 66.66% interest in STEM, along with other contributing factors, such as the Company retaining three of five Board positions of STEM, providing extensive services to STEM, and having a significant ability to affect the returns of STEM, has concluded that it controls STEM. Accordingly, all of STEM's assets, liabilities, equity, income, expense, and cash flows are included with Kane Biotech's in the Company's consolidated financial statements. Animalcare's investment was recorded as a minority interest in the Consolidated Statement of Financial Position at its initial fair value of $2,693,606.

STEM's principal place of business is in Winnipeg, Manitoba, Canada.

Summarized financial information, before inter-company eliminations, for STEM is as follows:

		December 31, 2022		December 31, 2021
Current assets	**$**	**2,456,083**	$	1,614,549
Non-Current assets		**522,826**		937,308
Current liabilities		**(583,297)**		(507,644)
Non-Current liabilities		**(541,261)**		(387,500)
Net assets	**$**	**1,854,351**	$	1,656,713

		Year ended December 31, 2022		Year ended December 31, 2021
Revenue	**$**	**2,511,619**	$	1,475,192
Income (loss) and comprehensive income (loss)	**$**	**197,638**	$	(735,893)

5. License and distribution agreements:

The Company has an exclusive license and distribution agreement with Dechra Veterinary Products LLC ("Dechra") that provides for an initial payment of $500,000 USD along with a series of potential payments linked to various commercial milestones to a combined maximum of $2.0 million USD. In addition, the Company receives ongoing royalty payments on net sales of products by Dechra in North America, subject to certain minimum annual royalty payments from Dechra to the Company.

The Company also has an exclusive license and distribution agreement with Animalcare Group PLC ("Animalcare") that provides for an initial payment of $500,000 along with a series of potential payments linked to various commercial milestones to a combined maximum of $2.0 million.

IFRS 15 requires the Company to use a five-step model to determine when the recognition of revenue with respect to payments received from Dechra and Animalcare will be recorded. Under the five-step approach, the Company exercised judgement in determining revenue recognition specifically related to the initial payments received in 2017 and 2021 and the milestone payment received in 2022. The Company concluded that the initial and milestone payments should be recognized over the terms of the agreements.

During the year ended December 31, 2021, the Company received a $125,000 USD ($156,288 CDN) milestone payment from Dechra related to the successful production of a pilot batch of a product by a manufacturer in South America.

During the year ended December 31, 2022, STEM was awarded the Veterinary Oral Health Council ("VOHC") Seal of Acceptance which, in accordance with the license and distribution agreements, triggers $1.3 million in milestone payments from STEM's licensing partners of which $500,000 USD was received during the current year and of which $700,000 will be received in 2023.

Summarized milestone payments received and related revenue recognized are as follows:

	Dechra Initial Payment $500,000 USD	Dechra SA Initial Payment $125,000 USD	Animalcare Initial Payment $500,000 CAD	Dechra Milestone Payment $500,000 USD	Total
Balance as of January 1, 2021	$ 413,612	$ -	$ (12,500)	$ -	$ 401,112
Payment received	-	156,288	500,000	-	656,288
Revenue recognized	(67,073)	(19,811)	(50,000)	-	(136,884)
Balance as of December 31, 2021	$ 346,539	$ 136,477	$ 437,500	$ -	$ 920,516
Payment received	-	-	-	641,561	641,561
Revenue recognized	(67,074)	(26,415)	(50,000)	(373,643)	(517,132)
Balance as of December 31, 2022	**$ 279,465**	**$ 110,062**	**$ 387,500**	**$ 267,918**	**$ 1,044,945**
Years Left on agreement	**4.2**	**4.2**	**7.8**	**4.2**	

In addition to recognized license revenue to date of $517,132 associated with license and milestone payments received in current and prior periods, a further $157,787 in license revenue has been recognized for the year ended December 31, 2022, related to the above mentioned upcoming $700,000 milestone payment.

6. Trade and other receivables:

	December 31, 2022	December 31, 2021
Trade receivables	**$ 321,009**	$ 184,159
Other receivables	**261,080**	411,449
	$ 582,089	$ 595,608

7. Inventory:

		December 31, 2022		December 31, 2021
Raw materials	**$**	**328,334**	$	211,865
Work-in-progress		**986**		10,993
Finished goods		**437,131**		360,430
Allowance for inventory obsolescence		**(2,980)**		(64,060)
	$	**763,471**	$	519,228

The cost of inventories recognized as an expense and included in cost of sales for the year ended December 31, 2022 was $707,046 (2021 - $473,674). In the year ended December 31, 2022, the Company has written down $25,300 (2021 - $106,842), related to discontinued and expired products, which is included in cost of sales.

8. Property and equipment:

The following is a summary of property and equipment as of December 31, 2022:

Cost	Computer and Office Equipment	Scientific and Manufacturing Equipment	Right-of-use Assets	Total
Balance as of January 1, 2021	$ 59,903	$ 220,384	$ 102,432	$ 382,719
Additions - 2021	75,651	111,022	1,225,425	1,412,098
Balance as of December 31, 2021	$ 135,554	$ 331,406	$ 1,327,857	$ 1,794,817
Additions - 2022	9,124	88,547	(85,121)	12,550
Change due to derecognition - 2022	(27,443)	(28,439)	(17,311)	(73,193)
Balance as of December 31, 2022	**$ 117,235**	**$ 391,514**	**$ 1,225,425**	**$ 1,734,174**

Depreciation	Computer and Office Equipment	Scientific and Manufacturing Equipment	Right-of-use Assets	Total
Balance as of January 1, 2021	$ 40,307	$ 166,272	$ 13,291	$ 219,870
Additions - 2021	13,782	21,925	103,281	138,988
Balance as of December 31, 2021	$ 54,089	$ 188,197	$ 116,572	$ 358,858
Additions - 2022	19,364	67,045	99,771	186,180
Change due to derecognition - 2022	(25,080)	(26,147)	(12,106)	(63,333)
Balance as of December 31, 2022	**$ 48,373**	**$ 229,095**	**$ 204,237**	**$ 481,705**

Carrying amounts	Computer and Office Equipment	Scientific and Manufacturing Equipment	Right-of-use Assets	Total
Balance as of December 31, 2021	81,465	143,209	1,211,285	1,435,959
Balance as of December 31, 2022	**68,862**	**162,419**	**1,021,188**	**1,252,469**

9. Intangible assets:

The following is a summary of intangible assets as of December 31, 2022:

Cost		**Patents**		**Trademarks**		**Total**
Balance as of January 1, 2021	$	906,916	$	88,633	$	995,549
Additions - 2021		147,794		19,078		166,872
Change due to derecognition 2021		(100,541)		-		(100,541)
Balance as of December 31, 2021	$	954,169	$	107,711	$	1,061,880
Additions - 2022		63,963		11,036		74,999
Balance as of December 31, 2022	**$**	**1,018,132**	**$**	**118,747**	**$**	**1,136,879**

Accumulated amortization and derecognition		**Patents**		**Trademarks**		**Total**
Balance as of January 1, 2021	$	218,624	$	-	$	218,624
Amortization - 2021		48,982		-		48,982
Change due to derecognition 2021		(34,369)		-		(34,369)
Balance as of December 31, 2021	$	233,237	$	-	$	233,237
Amortization - 2022		77,190		-		77,190
Balance as of December 31, 2022	**$**	**310,427**	**$**	**-**	**$**	**310,427**

Carrying amounts	**Patents**	**Trademarks**	**Total**
Balance as of December 31, 2021	720,932	107,711	828,643
Balance as of December 31, 2022	**707,705**	**118,747**	**826,452**

The Company has considered indicators of impairment as of December 31, 2022 and has not derecognized any patents for the year ended December 31, 2022 (2021 - $66,172). To December 31, 2022, the Company has recorded aggregate impairment (derecognition) losses of $1,481,911 (2021 - $1,481,911), primarily resulting from patents and patent applications that were abandoned.

Amortization and derecognition expenses are recognized in research expense.

10. Accounts payable and accrued liabilities:

		December 31, 2022		December 31, 2021
Trade payables	**$**	**602,803**	$	626,210
Non-trade payables and accrued expenses		**1,244,892**		1,431,564
	$	**1,847,695**	$	2,057,774

11. Due to related party:

The due to related party balance of $8,066 as of December 31, 2022 (December 31, 2021 - $8,066) is accumulated interest pertaining to prior years' related party cash advances which bore interest at 8% per annum as of January 1, 2019 and were repayable upon demand by the lender.

12. Loans payable:

(a) Loan payable

During the year ended December 31, 2020, the Company entered into a credit agreement (the "Credit Agreement") with Pivot Financial Inc. ("Pivot") for a non-revolving term loan in the aggregate amount of $1,480,000 (the "Credit Facility). In connection with the Credit Agreement, Kane entered into a general security agreement in favour of Pivot creating a first-priority security interest in all of its present and after-acquired personal property of Kane, as well as an intellectual property security agreement.

During the year ended December 31, 2021, the Company entered into an amended and restated credit agreement with Pivot, increasing the aggregate amount of the non-revolving loan to $2,500,000. The amended and restated credit facility bore an interest rate of 12.75% per annum and Kane was obligated to make quarterly principal payments in the amount of $200,000 starting on November 30, 2021.

During the year ended December 31, 2022, The Company entered into a further amended and restated credit agreement with Pivot, increasing the aggregate amount of the non-revolving loan to $4,000,000. The amended and restated credit facility bears an interest rate of 14% per annum and Kane is obligated to make monthly interest payments but it is no longer obligated to make quarterly principal payments.

All obligations under the further amended and restated credit facility which remain unpaid by January 31, 2023 (the "Maturity Date") shall be paid in full on the Maturity Date. As of December 31, 2022, the balance owing is $4,000,000 (December 31, 2021 - $2,379,040). The terms of the amended agreement include a loan covenant requiring it to maintain a minimum positive bank account balance of $400,000 at all times. The Company is not in compliance with this covenant as of December 31, 2022 representing a potential default of the Credit Agreement. The Credit Agreement was further amended subsequent to December 31, 2022 as discussed in subsequent event note 24.

During the year ended December 31, 2021, STEM entered into a loan agreement with National Bank of Canada ("National Bank") for a revolving operating line of credit in the amount of $500,000 (the "Credit Facility). The Credit Facility bears interest at National Bank's prime rate plus 1.75%. In connection with the Credit Facility, STEM has entered into a general security agreement in favour of National Bank creating a first-priority security interest in all its present and after-acquired property. There is no balance owing on the Credit Facility as of December 31, 2022 and 2021. The facility is subject to a working capital covenant for STEM. STEM was in compliance with the covenant as of December 31, 2022.

The Company also has access to commercial credit and debt with an aggregate credit limit of $90,000. As of December 31, 2022, the related balances outstanding included in accounts payable and accrued liabilities on the consolidated statement of financial position is $35,029 (December 31, 2021 – $34,643).

(b) Government loans

During the year ended December 31, 2019, the Company signed a funding agreement with Prairies Economic Development Canada ("PrairiesCan"), previously known as Western Economic Diversification Canada ("WD"). The Company was entitled to receive up to $3,792,984 from PrairiesCan in the form of interest-free repayable contributions over three years on an expense-incurred basis retroactive to April 1, 2019. Repayment of these contributions will take place over five years starting in April 2023. Up to December 31, 2022, repayable contributions advanced to the Company were $2,481,267 (December 31, 2021 - $1,804,107). As of December 31, 2022, the balance recorded in the Consolidated Statement of Financial Position was $1,734,745 (December 31, 2021 - $1,084,965). With the exception of a final payment holdback of $10,000, there are no further funding contributions receivable from PrairiesCan.

During the year ended December 31, 2022, the Company recorded a fair value adjustment of $254,898 (2021 - $308,518) on repayable contributions of $677,160 (2021 - $672,105) received during the period. This amount has been offset with an accretion expense of $227,518 (2021 - $87,815) that was recorded as a finance cost during the period.

Repayment schedule of these contributions is as follows:

12. Loans payable (continued):

2023	$	378,000
2024		504,000
2025		504,000
2026		504,000
2027 and after		591,267
	$	2,481,267

During the years of 2021 and 2020, the Company received $60,000 in loan advances from the Canada Emergency Business Account (CEBA) program. These loan advances are interest-free up to the amended term date ending December 31, 2023 and $20,000 is forgivable if $40,000 is repaid prior to the amended date. The Company recorded the loan at fair value at the initial recognition assuming forgiveness of $20,000 and an effective interest rate of 14%.

The following is a summary of proceeds received, fair value adjustment recorded, and accretion expense recorded as of December 31, 2022 and December 31, 2021:

		PrairieCan Loan		CEBA Loan		Total
Balance as of January 1, 2021	$	633,563	$	23,127	$	656,690
Proceeds - 2021		672,105		20,000		692,105
Fair value adjutment on loans - 2021		(308,518)		(15,280)		(323,798)
Accretion expense - 2021		87,815		2,823		90,638
Balance as of December 31, 2021	$	1,084,965	$	30,670	$	1,115,635
Proceeds - 2022		677,160		-		677,160
Fair value adjutment on loans - 2022		(254,898)		-		(254,898)
Accretion expense - 2022		227,518		3,791		231,309
Balance as of December 31, 2022	**$**	**1,734,745**	**$**	**34,461**	**$**	**1,769,206**
Government loans - current		139,450		34,461		173,911
Government loans - long-term		1,595,295		-		1,595,295
	$	**1,734,745**	**$**	**34,461**	**$**	**1,769,206**

13. Lease liabilities:

Effective May 1, 2021, the Company signed a 10-year facility lease for both its laboratory and office premises. The terms of the lease require fixed monthly rent payments of $13,889 over 10 years. At initial recognition, using a discount rate of 6%, the Company determined the fair value lease of the lease liability to be $1,225,425.

As of December 31, 2022, the carrying amount of lease liabilities was $1,087,634 (December 31, 2021 - $1,220,276). The breakdown of contractual undiscounted cash flows for lease liabilities as of December 31, 2022 and December 31, 2021 is as follows:

13. Lease liabilities (continued):

		December 31, 2022		December 31, 2021
Less than one year	**$**	**166,668**	$	202,394
One to five years		**666,672**		666,674
Over five years		**550,216**		550,213
Discounting		**(295,922)**		(199,005)
	$	**1,087,634**	$	1,220,276

Additions, payments, and interests paid related to lease liabilities are as following:

		Facility Lease		**Equipment & Other Leases**		**Total**
Balance as of January 1, 2021	$	-	$	80,701	$	80,701
Additions - 2021		1,225,425		-		1,225,425
Payments - 2021		(88,183)		(51,991)		(140,174)
Interest paid - 2021		48,576		5,748		54,324
Balance as of December 31, 2021	$	1,185,818	$	34,458	$	1,220,276
Derecognition - 2022		-		(5,205)		(5,205)
Payments - 2022		(166,669)		(30,401)		(197,070)
Interest paid - 2022		68,485		1,148		69,633
Balance as of December 31, 2022	**$**	**1,087,634**	**$**	**-**	**$**	**1,087,634**

The following is a summary of expenses recognized in the Consolidated Statement of Loss and Comprehensive Loss related to lease liabilities and short-term leases:

		Year ended December 31, 2022		Year ended December 31, 2021
Interest on lease liabilities	**$**	**69,633**	$	54,324
Expenses related to variable lease payments	**$**	**14,563**	$	8,769
Expenses related to short-term leases	**$**	**101,547**	$	131,388

For the year ended December 31, 2022, the total cash outflow for leases was $313,180 (2021 - $271,563).

14. Income tax

(a) Income tax provision

The reconciliation of the income tax provision using statutory income tax rates prevailing in Canada with the income tax expense reported in the financial statements is as follows:

		2022		2021
Canadian federal and provincial income tax rates at 27% (2021 - 27%)	**$**	**(1,032,480)**	$	(1,309,476)
Change in unrecognized deductible temporary differences and unused tax losses		**1,026,577**		1,305,934
Permanent differences and other		**5,903**		3,542
	$	**-**	$	-

The Company recognized no income taxes in the statement of comprehensive loss as it has been incurring losses since inception.

14. Income tax (continued):

(b) Unrecognized deferred tax assets:

Deferred tax asset based on temporary differences not recognized were as follows:

		2022		2021
Tax losses	**$**	**7,980,198**	$	7,132,683
Property and equipment		**21,992**		-
Scientific research and experimental development costs		**972,883**		881,717
Financing costs		**41,879**		43,035
Deferred revenue		**282,135**		248,539
Stock based compensation		**333,061**		256,092
	$	**9,632,148**	$	8,562,066

Given the Company's past losses, management does not believe that it is more probable than not that the Company can utilize its deferred tax assets and therefore it has not recognized any amount in the statement of financial position.

(c) Deferred tax liabilities:

Deferred tax liabilities were as follows:

		2022		2021
Intangible assets	**$**	**124,449**	$	109,017
Property and equipment		**-**		1,465
Accounts payable and accrued liabilities		**102,810**		79,640
Long-term government loan		**203,056**		196,687
	$	**430,315**	$	386,809

The deferred tax liability for temporary differences of $1,593,759 (2021 - $1,432,626) have been offset by sufficient deductible temporary differences (SR&ED costs) from (b) above which are available to reverse in the same period as the taxable temporary differences.

(d) The Company has the following available for application in future years:

14. Income tax (continued):

	2022	2021
Unutilized scientific research and development expenditures		
without time limitation	**$ 3,603,269**	$ 3,265,617
Unutilized non-capital loss carried forward balances		
2026	**$ 767,228**	$ 767,228
2027	**846,139**	846,139
2028	**851,022**	851,022
2029	**843,989**	843,989
2030	**810,574**	810,574
2031	**975,188**	975,188
2032	**1,222,411**	1,222,411
2033	**1,062,842**	1,062,842
2034	**1,295,259**	1,295,259
2035	**1,573,353**	1,573,353
2036	**2,384,174**	2,384,174
2037	**2,518,425**	2,518,425
2038	**2,558,003**	2,558,003
2039	**1,055,593**	1,055,593
2040	**3,847,435**	3,847,435
2041	**3,805,710**	3,805,710
2042	**3,138,940**	-
	$ 29,556,285	$ 26,417,345

14. Income tax (continued):

	2022	2021
Unutilized scientific research and development tax credits		
2023	**4,105**	4,105
2024	**47,104**	47,104
2025	**71,115**	71,115
2026	**154,908**	154,908
2027	**91,412**	91,412
2028	**180,498**	180,498
2029	**116,161**	116,161
2030	**134,256**	134,256
2031	**105,143**	105,143
2032	**118,519**	118,519
2033	**115,359**	115,359
2034	**48,373**	48,373
2035	**33,789**	33,789
2036	**49,400**	49,400
2037	**70,292**	70,292
2038	**77,915**	77,915
2039	**36,541**	36,541
2040	**43,378**	43,378
2041	**52,414**	52,414
2042	**113,494**	-
	$ 1,664,176	**$ 1,550,682**

15. Share capital:

(a) Authorized

The Company has authorized share capital of an unlimited number of common voting shares.

(b) Shares issued and outstanding

Shares issued and outstanding are as follows:

	Number of Common Voting Shares		Amount
Balance at January 1, 2021	108,613,535	$	20,858,419
Warrants exercised	6,200,000		1,297,809
Balance as of December 31, 2021	114,813,535	$	22,156,228
Restricted share units redeemed	16,667		3,000
Issuance of common shares	10,000,000		973,704
Balance as of December 31, 2022	124,830,202	$	23,132,932

15. Share capital (continued):

During the year ended December 31, 2022, the Company completed a private placement of 10,000,000 common shares at a price of $0.10 per share for aggregate gross proceeds of $1,000,000. Issuance costs associated with the common shares was $26,296.

(c) Stock option plan

The Company has an equity-settled Stock Option Plan ("Plan") in place for employees, directors, officers, and consultants of the Company which is administered by the Board of Directors. At the General and Special Meeting of Shareholders held on May 25, 2022, the Company received shareholder approval to amend the Plan, reducing the number of common shares reserved for the issuance of stock options under the Plan from 10% to 1% of the issued and outstanding shares of the Company as of the date of approval of the amended Plan by shareholders of the Corporation. As of December 31, 2022, an aggregate maximum of 1,148,302 (December 31, 2021 – 11,481,354) common share options are reserved for issuance under the Plan with 1,148,302 (December 31, 2021 – 11,145,459) of those common share options remaining available.

Share options issued to employees, directors and officers of the Company under the Plan expire five years from the grant date. The attributed exercise price of the grant per the Plan cannot be less than the closing price per common share on the date of the grant.

Effective on all stock options issued after April 21, 2021:

i) The exercise price shall, at a minimum, be equal to the fair market value of the Company's common stock on the grant date (TSXV share price).

ii) Each stock option shall vest in three equal annual installments, beginning on the grant date unless the participant is employed in investor relation activities for the Company. In such case each stock option shall vest in four equal quarterly installments beginning three months after the grant date

iii) The options shall expire five years from the date of issue.

iv) Grants to executive officers shall be made by the Compensation Committee of the Company's Board of Directors. Grants to staff shall be made by authorized officers (the CEO and CFO). The authorized officers may not approve any stock option awards exceeding 500,000 shares to any staff member.

v) All exceptions must be approved by the Compensation Committee.

Changes in the number of options outstanding during the year ended December 31, 2022 and December 31, 2021 are as follows:

	December 31, 2022			December 31, 2021		
	Options		**Weighted average exercise price**	Options		Weighted average exercise price
Balance as of January 1, 2022	**335,895**	**$**	**0.17**	9,399,555	$	0.18
Granted	**-**	**$**	**-**	335,895	$	0.17
Forfeited, cancelled or expired	**(335,895)**	**$**	**0.17**	(9,399,555)	$	0.18
Balance, end of period	**-**	**$**	**-**	335,895	$	0.17
Options exercisable, end of period	**-**	**$**	**-**	70,585	$	0.20
Weighted average fair value per unit of option granted during the period		**$**	**-**		$	0.17

15. Share capital (continued):

During the year ended December 31, 2021, the Company cancelled 8,470,555 stock options held by various directors, officers, employees, and consultants of the Company and issued 6,156,203 restricted share units ("RSUs") of the Company to replace the cancelled 8,470,555 stock options pursuant to the restricted share unit plan of the Company dated April 21, 2021. Each exchanged RSU is exercisable into one common share of the Company. The expiry date and vesting periods of the RSUs vary depending upon the participant.

The cancelled stock options were revalued as of the grant date of the RSUs using the Black-Scholes option pricing model with weighted average assumptions that correspond to their times to maturity. RSUs were measured at the Company's stock market price of $0.18 on July 20, 2021. The incremental fair value increase for the year ended December 31, 2021 resulting from the revaluation of cancelled stock options and the replacement RSU's was $336,048, which was recognised as RSU compensation expense.

During the year ended December 31, 2021, the Company issued 335,895 stock options to an employee of the Company. Each option is exercisable into one common share of the Company at prices of either $0.20 or $0.15 per share for a period of five years from the date of grant. The options were to vest in four equal quarterly installments over one year. Subsequently, all 335,895 stock options that expired were forfeited during the year.

For the year ended December 31, 2022, the Company recorded a stock option compensation expense recovery of $(8,472) (2021 – $ 143,672, expense) with a corresponding offset to contributed surplus.

Stock option compensation expense was based on the fair value of the options at the date of measurement using the Black-Scholes option pricing model with the following weighted average assumptions:

	2022	2021
Expected option life	-	5 years
Risk free interest rate	-	1.24%
Expected volatility	-	96.83%
Grant-date share price	-	$0.17
Option exercise price	-	$0.17

For awards that vested at the end of a vesting period, compensation cost was recognized on a straight-line basis over the period of service. For awards subject to graded vesting, each instalment was treated as a separate award with separate fair value and a separate vesting period.

(d) Restricted share unit plan

During the year ended December 31, 2021, the Company implemented a new equity-settled Restricted Share Unit Plan ("RSU Plan") for employees, directors, officers, and consultants of the Company which is administered by the Board of Directors. At the General and Special Meeting of Shareholders held on May 25, 2022, the Company received shareholder approval to amend the RSU Plan, increasing the number of common shares reserved for the issuance of RSUs under the Plan from 10% to 19% of the issued and outstanding shares of the Company as of the date of approval of the amended Plan by shareholders of the Corporation. As of December 31, 2022, an aggregate maximum of 21,817,738 (December 31, 2021 – 10,961,354) restricted share units are reserved for issuance under the Plan with 11,094,917 (December 31, 2021 – 221,866) of those common share options remaining available.

During the year ended December 31, 2021, the Company issued 4,583,285 RSUs to various directors, officers, employees, and consultants of the Company in addition to the 6,156,203 RSUs that replaced the 8,470,555 cancelled stock options (Note 15(c)). Each exchanged RSU is exercisable into one common share of the Company. Expiry dates and vesting periods of the RSUs vary depending upon the participant.

Restricted share units outstanding as of December 31, 2022 and December 31, 2021 consist of the following:

15. Share capital (continued):

	December 31, 2022	December 31, 2021
Balance as of January 1, 2022	**10,739,488**	-
Granted	**-**	10,739,488
Redeemed	**(16,667)**	-
Balance, end of period	**10,722,821**	10,739,488
Restricted share units exercisable, end of period	**9,449,033**	7,153,573

During the year ended December 31, 2022, the Company recorded RSU compensation expense of $288,071 (2021 – $948,490) with a corresponding credit to contributed surplus.

RSU compensation expense is based on the fair value of the RSUs as determined by the Company's closing share price on the TSX Venture Exchange on the date of issuance.

For awards that vest at the end of a vesting period, compensation cost is recognized on a straight-line basis over the period of service. For awards subject to graded vesting, each instalment is treated as a separate award with separate fair value and a separate vesting period.

(e) Warrants

During the year ended December 31, 2022, no warrants were exercised (2021- 6,200,000 warrants exercised at $0.18 per common share) and 35,669,192 warrants (2021 – 5,305,197) expired.

Changes in the number of warrants outstanding during the year ended December 31, 2022 and December 31, 2021 are as follows:

	December 31, 2022			December 31, 2021		
	Warrants	**Amount**	**Weighted average exercise price**	Warrants	Amount	Weighted average exercise price
Balance as of January 1, 2022	**35,669,192**	**$ 1,662,385**	**$ 0.18**	47,174,389	$ 1,844,760	$ 0.18
Exercised	**-**	**$ -**	**$ 0.18**	(6,200,000)	$ (131,577)	$ 0.18
Expired	**(35,669,192)**	**$ (1,662,385)**	**$ 0.18**	(5,305,197)	$ (50,798)	$ 0.18
Balance as of December 31, 2022	**-**	**$ -**	**$ 0.18**	35,669,192	$ 1,662,385	$ 0.18
Weighted average remaining contractual life		-			0.10 years	

(f) Per share amounts

The weighted average number of common voting shares outstanding for the year ended December 31, 2022 and 2021 was 120,702,074 and 112,600,420 respectively.

The dilution created by outstanding restricted share units, options and warrants has not been reflected in the per share amounts as the effect would be anti-dilutive.

16. Commitments and contingencies:

(a) Commitments

As of December 31, 2022 and in the normal course of business, the Company has obligations to make future payments, representing contracts and other commitments that are known and committed.

Contractual obligation payments due by fiscal year ending December 31:

	USD	CND
2023	$ -	$ 32,380
2024	$ -	$ 24,880
2025	$ -	$ 12,440
2026	$ -	$ -
2027 and after	$ -	$ -
	$ -	$ 69,700

The Company holds a worldwide exclusive right to Competence Stimulating Peptide (CSP) technology from the University of Toronto Innovations Foundation (UTIF). In consideration for the right, the Company will pay UTIF a royalty of a stipulated percentage of the net sales, if any, of the licensed products. If the Company sublicenses any rights to a third party, the Company will pay UTIF a percentage of a sublicense fee or sublicense royalty fees. The Company does not expect to make royalty payments under this agreement in fiscal 2023 and cannot predict when such royalties will become payable, if at all.

Also, the Company holds a worldwide exclusive license to DispersinB® enzyme from the University of Medicine and Dentistry of New Jersey (UMDNJ), now part of Rutgers University (Rutgers). In consideration for the right, the Company will pay a royalty to Rutgers of a stipulated percentage of the net sales, if any, of the licensed products. If the Company sublicenses any rights to a third party, the Company will pay Rutgers a percentage of a sublicense fee and/or sublicense royalty fees. A minimum royalty fee of $10,000 USD per annum is payable for the life of the license, with additional milestone payments possible throughout the term of the agreement.

In addition, the Company holds a non-exclusive, non-transferable licence to use the Canadian Dermatology Association ("CDA") Skin Health Program logo and associated statements in different variations. In consideration for this right, the Company has committed to pay the CDA a non-refundable licence fee of $22,500, payable in annual $7,500 instalments, effective February 17, 2021.

(b) Guarantee

The Company periodically enters into research and licence agreements with third parties that include indemnification provisions customary in the industry. These guarantees generally require the Company to compensate the other party for certain damages and costs incurred because of claims arising from research and development activities undertaken on behalf of the Company. In some cases, the maximum potential number of future payments that could be required under these indemnification provisions could be unlimited. These indemnification provisions generally survive termination of the underlying agreement. The nature of the indemnification obligations prevents the Company from making a reasonable estimate of the maximum potential amount it could be required to pay. Historically, the Company has not made any indemnification payments under such agreements and no amount has been accrued in the accompanying financial statements with respect to these indemnification obligations.

17. Government and other assistance:

For the year ended December 31, 2022, the Company recorded $898,691 in government assistance (2021 – $1,680,830).

Government assistance was recorded as reductions in research and general and administrative expenditures on the consolidated statements of loss and comprehensive loss.

Other receivables included $97,462 (December 31, 2021 – $297,612) of government assistance receivable.

18. Related parties:

(a) Key management personnel compensation

Key management personnel are those persons having authority and responsibility for planning, directing, and controlling the activities of the Company. The Board of Directors, President & CEO and CFO are key management personnel.

Board of Director compensation includes board fee and restricted share units. President & CEO and CFO compensation includes base salaries, a shot-term incentive plan and restricted share unit. The following table details the compensation recorded for key management personnel:

		Year ended December 31, 2022		Year ended December 31, 2021
Salaries, fees and short-term employee benefits	**$**	**470,013**	$	469,367
Share-based payments		**245,039**		594,749
	$	**715,052**	$	1,064,116

(b) Key management personnel and director transactions

Directors and key management personnel control 27.5% of the voting shares of the Company.

During the year ended December 31, 2021, $13,775 was paid to a related party pertaining to accumulated interest on prior years' related party cash advances. The balance of due to related party as of December 31, 2022 is accumulated interest of $8,066 (December 31, 2021 - $8,066). These advances bore interest at 8% per annum as of January 1, 2019 and were repayable upon demand by the lender. During the year ended December 31, 2019, the Company repaid all principal owing on these advances.

During the year ended of December 31, 2022, the loan receivable, which represents cash advances provided to a company which is wholly owned by the President & CEO of Kane Biotech as part of a demand loan of up to $150,000 approved by the Board of Directors in 2019, increased to $150,000 and was subsequently derecognized along with accumulated interest of $28,203. As of December 31, 2022, the loan receivable balance is nil (December 31, 2021 - $130,000). This loan bore interest at 8% per annum and was secured by all of the assets of the borrower. As of December 31, 2022, the interest receivable from this loan is nil (December 31, 2021 - $16,990). For the year ended December 31, 2022, the Company recorded a provision $178,203 (2021 – nil) of this related party loan receivable, included in general and administration on the consolidated statement of loss and comprehensive loss.

Accrued liabilities owing to key management personnel was nil as of December 31, 2022 (December 31, 2021 – $4,976).

During the year ended December 31, 2020, STEM entered into a contract with a key employee that provides the employee with incremental variable compensation based on a pre-determined formula once STEM achieves a minimum of $2 million of EBITDA. The value of the compensation increases with further increases in EBITDA. Payments under the plan could begin as early as October 8, 2023. The Company has not recorded a liability related to this plan as of December 31, 2022.

19. Expenses by nature:

Expenses incurred for the year ended December 31, 2021 and 2022 are as follows:

		Year ended December 31, 2022		Year ended December 31, 2021
Personnel expenses				
Wages and salaries	**$**	**2,337,145**	$	2,438,358
Employee benefits and insurance premiums		**145,940**		124,634
Share-based payments		**279,599**		1,092,162
		2,762,684		3,655,154
Depreciation, amortization and writedowns		**268,024**		254,143
Science consumables and contract research		**917,282**		1,582,598
Occupancy		**26,255**		53,751
License fees		**12,717**		12,668
Investor relations		**207,431**		242,908
Consulting		**221,762**		366,552
Marketing		**490,273**		327,198
Other		**769,301**		430,618
Less: Government assistance		**(898,691)**		(1,473,592)
	$	**4,777,038**	$	5,451,998

20. Segmented information:

The Company has a separate operating segment for its Stem Animal Health subsidiary, which operates the animal health business. There are no other distinct operating segments within the remaining operations of the Company.

Information regarding the results by operating segment for the year ended December 31, 2022 is as follows

	Year ended December 31, 2022	Year ended December 31, 2022	Year ended December 31, 2022
Revenue	**STEM**	**All Other Segments**	**Total**
License	$ 581,431	$ 93,488	$ 674,919
Royalty	257,613	-	257,613
Sales of goods and services	1,672,575	63,245	1,735,820
Total Revenue	2,511,619	156,733	2,668,352
Cost of sales-sales of goods and services	1,210,419	44,704	1,255,123
Gross Profit	1,301,200	112,029	1,413,229
Expenses			
General and administration	1,189,433	2,533,613	3,723,046
Research	17,971	1,036,021	1,053,992
	1,207,404	3,569,634	4,777,038
Income (loss) from operations	93,796	(3,457,605)	(3,363,809)
Other expenses (income):			
Finance income	(84,888)	(15,463)	(100,351)
Finance costs	5,549	816,664	822,213
Fair value adjustment - government loan	-	(254,898)	(254,898)
Foreign exchange loss (gain)	(24,503)	17,730	(6,773)
Net other expenses (income)	(103,842)	564,033	460,191
Income (loss) and comprehensive income (loss) for the period	$ 197,638	$ (4,021,638)	$ (3,824,000)
Income (loss) and comprehensive income (loss) attributable to:			
Shareholders	131,746	(4,021,638)	(3,889,892)
Minority interest	65,892	-	65,892
Income (loss) and comprehensive income (loss) for the period	197,638	(4,021,638)	(3,824,000)

20. Segmented information (continued):

Information regarding the financial position by operating segment as of December 31, 2022 is as follows:

	December 31, 2022 Stem	December 31, 2022 All Other Segments	December 31, 2022 Total
Current assets	$ 2,456,083	$ 640,662	$ 3,096,745
Non-current assets	522,826	2,000,264	2,523,090
Total assets	$ 2,978,909	$ 2,640,926	$ 5,619,835
Current liabilities	$ 583,297	$ 5,758,265	$ 6,341,562
Non-current liabilties	541,261	2,874,723	3,415,984
Shareholders' equity (deficit)	1,854,351	(5,992,062)	(4,137,711)
Total liabilities and shareholder's equity	$ 2,978,909	$ 2,640,926	$ 5,619,835

In terms of geographic segmentation, a substantial proportion of its revenues come from non-Canadian sources. The breakdown of Canadian to non-Canadian revenues is as follows:

	Year ended December 31, 2022	Year ended December 31, 2021
Domestic	**$ 1,188,719**	$ 931,951
International	**1,479,633**	675,824
	$ 2,668,352	$ 1,607,775

Three of the Company's largest customers accounted for 65% of the Company's total sales for the year ended December 31, 2022 (2021 – three customers, 53%).

21. Determination of fair values:

Several of the Company's accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values that have been determined for measurement and/or disclosure purposes based on certain models are indicated below. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

(a) Share-based payment transactions:

The fair value of stock options is measured using the Black-Scholes formula. Measurement inputs include share price on measurement date, exercise price of the instrument, expected volatility (based on weighted average historic volatility adjusted for changes expected due to publicly available information), weighted average expected life of the instruments, expected dividends, and the risk-free interest rate (based on government bonds). Service and non-market performance conditions attached to the transactions are not considered in determining fair value.

The fair value of restricted share units is determined by the Company's closing share price on the TSX Venture Exchange on the date of issuance.

(b) Financial assets and liabilities:

The Company has determined the estimated fair values of its financial instruments based on appropriate valuation methodologies. The carrying values of current monetary assets and liabilities approximate their fair values due to their relatively short periods to maturity except for the government loans which as of December 31, 2022 has a fair value of $1,769,206 (December 31, 2021 - $1,115,635).

Financial assets and liabilities that are recognized on the consolidated statement of financial position at fair value follow a hierarchy that is based on the significance of the inputs used in making the measurements. The government loans represent a level 2 input that represents inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).

22. Financial risk management:

The Company's activities expose it to a variety of financial risks: market risk (including foreign exchange and interest rate risks), credit risk and liquidity risk. Risk management is the responsibility of the Company, which identifies, evaluates and, where appropriate, mitigates financial risks.

(a) Foreign exchange risk:

The Company operates in Canada and has relationships with entities in other countries. Foreign exchange risk arises because the cost of transactions denominated in foreign currencies may vary due to changes in exchange rates.

Balances in foreign currencies as of December 31 were approximately**:**

		2022		2021
		U.S. Dollars		U.S. Dollars
Cash and cash equivalents	**$**	**416,378**	$	299,900
Trade and other receivables		**130,754**		286,846
Accounts payables and accrued liabilities		**(299,576)**		(436,034)
	$	**247,556**	$	150,712

Fluctuations in the U.S. dollar exchange rates may potentially have a significant impact on the Company's operations results. The Company estimates that a decrease in the Canadian to US dollar exchange rate of 10% would result in net income of $24,756 (2021 - $15,071).

(b) Interest rate risk:

The Company is exposed to interest rate risk to the extent that short-term deposits are at a floating short-term rate of interest and their market value will vary with the change in short-term market interest rates. The Company's maximum exposure to interest rate risk is based on the effective interest rate and the current carrying value of these assets.

There is a risk that future cash flows from invested cash, cash equivalents and short-term deposits will vary as the market interest rates fluctuate because these investments earn interest at market rates. Based on the December 31, 2022 balance of approximately $50,107 (2021 - $50,054), a variation of 100 basis points in the market interest rate would not affect loss and comprehensive loss by a material amount. For the year ended December 31, 2022, the Company recorded interest income of $4,011 (2021 - $1,500) in relation to these assets.

There is a risk that the interest rate on the loan payable will vary as market interest rates fluctuate if further amendments to the Credit Agreement are required. There is no interest rate risk on government loans as they do not bear interest and are expected to be repaid by maturity.

(c) Credit risk:

The Company limits its exposure to credit risk by investing only in banks that have a strong credit rating. Trade and other receivables are subject to normal credit risk. The maximum exposure to credit risk is equal to the carrying value of the trade receivables and loan receivable which is $321,009 (December 31, 2021 - $184,159). The Company regularly assesses the trade and other receivables and takes action to collect the amounts or provide adequate reserves against doubtful accounts. The Company currently has no reserve for doubtful accounts as there have been no bad debts to date except the related party loan receivable with the related interest was written off in the year with a total of $178,203. As of December 31, 2022, the Company has accounts receivable that are past due but not impaired of $124,498 (December 31, 2021 - $283,532) which were all collected subsequent to December 31, 2022.

(d) Liquidity risk:

Liquidity risk is the risk that the current financial obligations exceed the cash available to satisfy those obligations at any point in time. The Company's objective in managing liquidity risk is to maintain sufficient readily available cash in order to meet its liquidity requirements. The Company achieves this by primarily relying on private placement offerings of common shares and warrants.

22. Financial risk management (continued):

The following table summarizes the Company's financial liabilities with corresponding maturity.

	< 1 Year	1-3 years	3-5 years	5-10 years	Total
Due to related party	$ 8,066	$ -	$ -	$ -	$ 8,066
Government loans	418,000	1,008,000	1,008,000	87,267	2,521,267
Loan payable	4,000,000	-	-	-	4,000,000
Accounts payable and accrued liabilities	1,847,695	-	-	-	1,847,695
	$ 6,273,761	$ 1,008,000	$ 1,008,000	$ 87,267	$ 8,377,028

(e) Capital management:

The Company's primary objective when managing capital, defined as shares, warrants, loan payable and long-term government loans, is to ensure that it has sufficient cash resources to fund its development and commercialization activities and to maintain its ongoing operations.

As of December 31, 2022, the Company's capital was $ 28,902,138 (December 31, 2021 - $27,313,288).

To fund its activities, the Company relies primarily on private placements of its common shares. To secure additional capital the Company may attempt to raise funds through the issuance of equity, by securing strategic partners or by borrowing. The Company is not subject to externally imposed capital requirements and there has been no change with respect to the overall capital management strategy during the year ended December 31, 2022.

23. Changes in liabilities from financing activities

Changes in liabilities from financing activities during the year ended December 31, 2022 and 2021 are as follows:

	January 1, 2021	Cash - Principal	Cash - Interest	Interest Accrued	Non-Cash	December 31, 2021
Long-term borrowings	$ 656,690	$ 692,105	$ -	$ 90,638	$ (323,798)	$ 1,115,635
Short-term borrowings	1,534,374	640,312	-	212,420	-	2,387,106
	$ 2,191,064	$ 1,332,417	$ -	$ 303,058	$ (323,798)	$ 3,502,741

	January 1, 2022	**Cash - Principal**	**Cash - Interest**	**Interest Accrued**	**Non-Cash**	**December 31, 2022**
Long-term borrowings	$ 1,115,635	$ 677,160	$ -	$ 231,309	$ (254,898)	$ 1,769,206
Short-term borrowings	2,387,106	1,700,000	$ (548,291)	469,251	-	4,008,066
	$ 3,502,741	$ 2,377,160	$ (548,291)	$ 700,560	$ (254,898)	$ 5,777,272

24. Subsequent events:

(a) Amendments to the Credit Agreement

(i) On January 31, 2023, the Company entered into an amendment to the Credit Agreement with Pivot which extended the maturity date of the Credit Facility from January 31, 2023 to February 28, 2023.

(ii) On March 1, 2023, the Company entered into an amendment to the Credit Agreement with Pivot which increased the size of the non-revolving loan under the Credit Facility by $1 million to a total of $5 million. Under the terms of the amended Credit Facility, the maturity date of the loan was extended from February 28, 2023 to August 31, 2023 and the interest rate on the Credit Facility increased from 14% to 15%. The $1 million increase to the Credit Facility is guaranteed (the "Guarantee") by a third-party guarantor (the "Guarantor"). In consideration for providing the Guarantee, the Guarantor was issued 2.5 million warrants to purchase common shares of the Company at a price of $0.10 per share for a period of one year from the date of issuance.