VENTRIPOINT DIAGNOSTICS LTD.

CONSOLIDATED FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2022 AND 2021

(EXPRESSED IN CANADIAN DOLLARS)

Independent Auditor's Report

To the Shareholders of Ventripoint Diagnostics Ltd.:

Opinion

We have audited the consolidated financial statements of Ventripoint Diagnostics Ltd. and its subsidiary (the "Company"), which comprise the consolidated statement of financial position as at December 31, 2022, and the consolidated statements of loss and comprehensive loss, changes in equity (deficit) and cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

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

Basis for Opinion

We conducted our audit 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 Consolidated Financial Statements section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the consolidated 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 1 in the consolidated financial statements, which indicates that the Company incurred a net loss during the year ended December 31, 2022 and, as of that date, the Company had a negative cash flow from operating activities and an accumulated deficit. As stated in Note 1, these events or conditions, along with other matters as set forth in Note 1, 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.

Except for the matter described in the Material Uncertainty Related to Going Concern section, we have determined that there are no other key audit matters to communicate in our report.

Other Matter

The consolidated financial statement for the year ended December 31, 2021 were audited by another auditor who expressed an unmodified opinion on those statements on May 2, 2022.

MNP LLP
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Other Information

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

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit 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.

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

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 Blair Michael Mabee.

MNP LLP

Mississauga, Ontario — Chartered Professional Accountants

April 28, 2023 — Licensed Public Accountants

Ventripoint Diagnostics Ltd.

Consolidated Statements of Financial Position
(Expressed in Canadian Dollars)

	As at December 31, 2022	As at December 31, 2021
ASSETS		
Current assets		
Cash	**$ 5,185,770**	$ 9,268,963
Accounts receivable (note 5)	**374,178**	197,494
Prepaid expenses	**103,487**	35,871
Total current assets	**5,663,435**	9,502,328
Non-current assets		
Property and equipment (note 6)	**6,885**	16,026
Right-of-use asset (note 9)	**306,380**	26,494
Total assets	**$ 5,976,700**	$ 9,544,848
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued liabilities (notes 7 and 19)	**$ 964,106**	$ 1,050,867
Lease liability (note 9)	**41,815**	34,592
Loans payable (note 8)	**49,827**	-
Total current liabilities	**1,055,748**	1,085,459
Non-current liabilities		
Loans payable (note 8)	**93,058**	125,377
Lease liability (note 9)	**274,378**	-
Total liabilities	**1,423,184**	1,210,836
Shareholders' equity (deficiency)		
Share capital (note 10)	**42,675,264**	42,213,957
Contributed surplus	**10,421,026**	9,755,930
Accumulated other comprehensive income	**78,238**	112,337
Deficit	**(48,621,012)**	(43,748,212)
Total equity (deficiency)	**4,553,516**	8,334,012
Total equity (deficiency) and liabilities	**$ 5,976,700**	$ 9,544,848

Nature of operations and going concern (note 1)
Commitments (note 20)
Subsequent events (note 21)

Approved on behalf of the Board:

(Signed) "Dr. George Adams " Director (Signed) "Robert Hodgkinson" Director

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

Ventripoint Diagnostics Ltd.
Consolidated Statements of Loss and Comprehensive Loss
(Expressed in Canadian Dollars)

	Year Ended December 31, 2022	Year Ended December 31, 2021
Revenue	**$ 68,167**	$ -
Cost of Sales	**(10,359)**	-
Gross Margin	**57,808**	-
Operating expenses		
General and administrative (note 18)	**3,098,396**	2,709,835
Research and development (note 18)	**1,050,394**	457,341
Sales and marketing (note 18)	**819,743**	541,974
Royalty payment	**-**	6,268
Total operating expenses	**4,968,533**	3,715,418
Loss from operations	**(4,910,725)**	(3,715,418)
Finance income (cost) (note 15)	**(9,963)**	31,968
Warrant liabilities revaluation	**-**	(193,050)
Other income (note 13)	**107,888**	79,969
Foreign currency differences	**(60,000)**	(1,352)
Loss on debt settlement (note 10)	**-**	(83,147)
Net loss for the year	**$ (4,872,800)**	$ (3,881,030)
Other comprehensive income (loss)		
Items that will be reclassified subsequently to income		
Currency translation	**$ (34,099)**	$ 3,491
Total loss and comprehensive loss for the year	**$ (4,906,899)**	$ (3,877,539)
Basic and diluted net loss per share (note 16)	**$ (0.03)**	$ (0.03)
Weighted average number of common shares outstanding	**155,994,206**	136,097,000

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

Ventripoint Diagnostics Ltd.

Consolidated Statements of Cash Flows
(Expressed in Canadian Dollars)

	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating activities		
Net loss for the year	**$ (4,872,800)**	$ (3,881,030)
Adjustments for:		
Depreciation of property and equipment	**9,141**	13,488
Depreciation of right of use asset	**41,763**	35,324
Loss on debt settlement	**-**	83,147
Share-based compensation	**798,053**	898,300
Derivative liabilities revaluation adjustment	**-**	193,050
Consulting fees settled with shares	**190,000**	-
Accretion of debentures payable	**-**	19,457
Interest on debentures paid out in shares	**-**	23,274
Interest on lease liability	**10,654**	6,141
Interest accretion	**17,508**	(75,329)
Changes in non-cash working capital items:		
Accounts receivable	**(176,684)**	(32,153)
Prepaid expenses	**(67,616)**	(12,743)
Accounts payable and accrued liabilities	**(86,761)**	(396,048)
Interest payable	**-**	(21,642)
Net cash used in operating activities	**(4,136,742)**	(3,146,764)
Investing activities		
Additions to property and equipment	**-**	(4,257)
Net cash used in investing activities	**-**	(4,257)
Financing activities		
Funds from public offering	**-**	8,055,060
Share issue cost	**-**	(803,314)
Lease payments	**(50,701)**	(48,866)
Government grants	**-**	52,600
Proceeds received on exercise of warrants	**29,900**	3,954,866
Proceeds received on exercise of options	**108,450**	680,124
Net cash provided by financing activities	**87,649**	11,890,470
Effect of foreign exchange on cash	**(34,100)**	3,488
Net change in cash	**(4,083,193)**	8,742,937
Cash, beginning of year	**9,268,963**	526,026
Cash, end of year	**$ 5,185,770**	$ 9,268,963

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

Ventripoint Diagnostics Ltd.
Consolidated Statements of Changes in Equity (Deficit)
(Expressed in Canadian Dollars)

	Number of common shares	Share capital	Contributed surplus	Accumulated other comprehensive income	Deficit	Total
Balance, December 31, 2020	**90,062,382**	**$ 31,009,342**	**$ 6,400,369**	**$ 108,846**	**$ (39,867,182)**	**$ (2,348,625)**
Units issued	15,490,500	4,930,128	3,124,932	-	-	8,055,060
Share issue cost	-	(1,349,392)	546,078	-	-	(803,314)
Warrants exercised	26,750,322	5,065,450	(760,784)	-	-	4,304,666
Stock options exercised	4,776,250	1,226,836	(446,712)	-	-	780,124
Deferred share units exercised	142,500	6,250	(6,250)	-	-	-
Modification on convertible debt	17,573,324	1,158,922	-	-	-	1,158,922
Liabilities settled with shares	763,627	166,421	-	-	-	166,421
Share-based compensation	-	-	898,297	-	-	898,297
Currency translation adjustment	-	-	-	3,491	-	3,491
Net loss for the year	-	-	-	-	(3,881,030)	(3,881,030)
Balance, December 31, 2021	**155,558,905**	**$ 42,213,957**	**$ 9,755,930**	**$ 112,337**	**$ (43,748,212)**	**$ 8,334,012**
Warrants exercised	260,000	51,428	(21,528)	-	-	29,900
Stock options exercised	1,005,000	409,879	(111,429)	-	-	298,450
Share-based compensation	-	-	798,053	-	-	798,053
Currency translation adjustment	-	-	-	(34,099)	-	(34,099)
Net loss for the year	-	-	-	-	(4,872,800)	(4,872,800)
Balance, December 31, 2022	**156,823,905**	**$ 42,675,264**	**$ 10,421,026**	**$ 78,238**	**$ (48,621,012)**	**$ 4,553,516**

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

1. Nature of operations and going concern

Ventripoint Diagnostics Ltd. ("Diagnostics" or the "Company") was incorporated by a Certificate of Incorporation pursuant to the provisions of the Business Corporations Act (Alberta) on May 4, 2005. Diagnostics acquired Ventripoint Inc. ("Ventripoint", Diagnostics and Ventripoint, collectively referred to herein as the "Company" or "Companies") on September 18, 2007. Diagnostics is a Canadian public company with its shares listed on the TSX Venture Exchange ("TSXV" or the "Exchange") with the trading symbol "VPT" and on the OTC Markets in the U.S. with the trading symbol "VPTDF". Ventripoint Inc. was incorporated in the State of Washington in July, 2004 and commenced operations in January, 2005. Ventripoint Inc.'s registration was migrated to the State of Delaware on December 21, 2017. The Companies' registered office is at 18 Hook Avenue, Unit 101, Toronto, Ontario, M6P 1T4.

The Company is a medical device company engaged in the development and commercialization of diagnostic tools that monitor patients with heart disease. The system is based upon patented technology, the commercialization rights of which Ventripoint has licensed from the University of Washington.

In March 2020 the World Health Organization declared coronavirus COVID19 a global pandemic. This contagious disease outbreak, which has continued to spread, and any related adverse public health developments, has adversely affected workforces, economies, and financial markets globally, potentially leading to an economic downturn. The Company is dependent on the return of public access to hospitals and how quickly marketing and installations can proceed. During 2022, access to hospitals have improved.

These consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and settlement of liabilities in the normal course of business as they come due. There is no certainty whether the Company will generate significant revenues or attain profitable operations in the near future and there can be no assurance that it will achieve profitability in the future, as it incurred a loss of $4,872,800 and had a negative cash flow from operating activities of $4,136,742 for the year ended December 31, 2022, and has accumulated $48,621,012 of losses as at December 31, 2022. The Company's ability to continue as a going concern is dependent on its raising of future required capital, bringing its products to market and achieving and maintaining profitable operations. The outcome of these matters cannot be predicted at this time. As a result there exists a material uncertainty which creates significant doubt regarding the Company's ability to continue as a going concern. These consolidated financial statements do not include any adjustments and classifications of assets and liabilities, which might be necessary should the Company be unable to continue its operations. Such adjustments could be material.

2. Significant accounting policies

Statement of compliance

The Company applies International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and interpretations issued by the International Financial Reporting Interpretations Committee ("IFRIC").

These consolidated financial statements were authorized and approved by the Board of Directors on April 28, 2023

2. Significant accounting policies (continued)

Basis of consolidation

These consolidated financial statements include the accounts of Diagnostics and Ventripoint Inc., its wholly-owned and controlled subsidiary. The financial statements of subsidiaries, including entities which the Company controls, are included in the consolidated financial statements from the date that control commences until the date that control ceases. The financial statements of the subsidiary are prepared for the same reporting period as the Company, using consistent accounting policies. All intercompany transactions and balances have been eliminated.

Functional and presentation currency

These consolidated financial statements are presented in Canadian dollars ("CDN$"), the Company's functional currency. The functional currency of the Company's wholly owned US subsidiary is US dollars ("US$").

Critical accounting judgements and estimates

The preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the reporting date and reported amounts of expenses during the reporting period. Actual outcomes could differ from these estimates. These consolidated financial statements include estimates, which, by their nature are uncertain. The impacts of such estimates are pervasive throughout the consolidated financial statements, and may require accounting adjustments based on future occurrences. Revisions to accounting estimates are recognized in the period in which the estimate is revised and the revision affects both current and future periods.

The areas which require management to make significant judgements, estimates and assumptions in determining carrying values include, but are not limited to:

<u>Derivatives and debt valuation</u>
The valuation of debt and embedded derivatives for convertible instruments is based on the application of a recognized option valuation formula, which is highly dependent on, amongst other things, the expected volatility of the Company's registered shares and the expected life of the options. The Company uses an expected volatility rate for its shares based on past stock trading data, adjusted for future expectations, and actual volatility may be significantly different.

The resulting value calculated is not necessarily the value that the holder of the instrument could receive in an arm's length transaction. It is management's view that the value derived is highly subjective and dependent entirely upon the input assumptions made.

2. Significant accounting policies (continued)

Critical accounting judgements and estimates (continued)

Share-based payments
The fair value of share-based payments are estimated using the Black Scholes option pricing model and rely on a number of estimates, such as the expected life of the option, the volatility of the underlying share price, the risk free rate of return, and the estimated rate of forfeiture of options granted.

Foreign currency

At the transaction date, each asset, liability, revenue and expense denominated in a foreign currency is translated into the functional currency by the use of the exchange rate in effect at that date. At the year-end date, unsettled monetary assets and liabilities are translated into the functional currency by using the exchange rate in effect at the year-end date and the related translation differences are recognized in profit or loss.

Non-monetary assets and liabilities that are measured at historical cost are translated into the functional currency by using the exchange rate in effect at the date of the initial transaction and are not subsequently restated. Non-monetary assets and liabilities that are measured at fair value or a revalued amount are translated into the functional currency by using the exchange rate in effect at the date the value is determined and the related translation differences are recognized in profit or loss or other comprehensive loss consistent with where the gain or loss on the underlying non-monetary asset or liability has been recognized.

Monetary assets and liabilities denominated in foreign currencies are translated at the exchange rate in effect at the consolidated statements of financial position date. Non-monetary assets and liabilities, expenses and other income arising from foreign currency transactions are translated at the exchange rate in effect at the date of the transaction. Exchange gains or losses arising from the translation are included in the determination of losses in the current year.

Financial instruments

Financial assets

All financial assets are initially recorded at fair value and designated on acquisition to one of the following three categories: amortized cost, fair value through profit or loss, or fair value through other comprehensive income. The Company does not have any financial instruments classified as fair value through other comprehensive income.

Amortized cost
These assets incorporate other types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely the payments of principal and interest. They are initially recognized at fair value plus transaction costs that are directly attributable to their acquisition or issuance and are subsequently carried at amortized cost using the effective interest rate method, less provision for impairment.

2. Significant accounting policies (continued)

Financial instruments (continued)

Financial assets (continued)

Amortized cost (continued)
Impairment provisions for accounts receivable are recognized based on the simplified approach within IFRS 9 - *Financial Instruments* ("IFRS 9") using the lifetime expected credit losses. During the process of reviewing accounts receivable for impairment, the probability of the non-payment of the accounts receivable is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for accounts receivable. For accounts receivable, which are reported net, such provisions are recorded in a separate provision account with the loss being recognized within operating expenses in the consolidated statement of loss and comprehensive loss. On confirmation that a certain accounts receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

The Company's financial assets measured at amortized cost are comprised of cash, which include balances with banks and a restricted term deposit with a maturity of three months or less, and accounts receivable, excluding HST receivable.

Fair value through profit or loss
These assets are carried in the consolidated statement of financial position at their fair value with changes in fair value recognized in the consolidated statement of loss and comprehensive loss. Transaction costs associated with financial instruments measured at fair value through profit or loss are expensed as incurred.

A financial asset is derecognized when the rights to receive cash flows from the asset have expired or when the Company has transferred its rights to receive cash flows from the asset.

Financial liabilities

The Company classified its financial instruments into one of two categories, depending on the purpose for which the liabilities were acquired.

Fair value through profit or loss
These liabilities are classified and measured at fair value through profit or loss. As at December 31, 2022, the Company has classified its derivative financial liabilities and financial liabilities designated upon initial recognition at fair value through profit or loss to this category. A financial liability is derecognized when its contractual obligations are discharged, cancelled, or expire.

Other financial liabilities
Other financial liabilities are initially recognized at fair value and subsequently carried at amortized cost using the effective interest method. This category includes accounts payable and accrued liabilities and loans payable.

2. Significant accounting policies (continued)

Share capital

Common shares are classified as equity. Incremental costs directly attributable to the issue of common shares are recognized as a deduction from equity, net of any tax effects.

Revenue recognition

The Company derives revenue from product sales of its Ventripoint Medical System ("VMS") equipment.

Applying the five-step model required by IFRS 15 *Revenue from Contracts with Customers*, revenue is recognized as follows for these contracts:

Identify the contract:
The contractual arrangement executed with the customer, specifying the equipment, scope and compensation.

Identify distinct performance obligations:
The contract may include multiple performance obligations including the sale of inventory and server access.

Estimate transaction price:
Transaction price is based on the observable stand-alone selling price as stated in the contract and is based on a fixed fee. No variable consideration exists.

Allocate price to performance obligations:
The transaction price is allocated to each performance obligation linked to customer commitments for each obligation under the contract based on stand-alone selling prices.

Recognize revenue as the performance obligations are satisfied:
Revenue is recognized at a point in time once control passes to the customer and when all significant contractual obligations have been satisfied, collection is probable and the amount of revenue can be estimated reliably.

Government grant and contribution recognition

Government grants for reimbursement of costs are recognized as other income in the period the expenses are incurred when there is reasonable assurance that a grant will be received, and the Company will comply with all related conditions.

Loans received from government entities are recognized initially at fair value with the difference between the fair value of the loan and the amount received being recognized immediately in the consolidated statements of loss and comprehensive loss.

Property and equipment

Recognition and measurement

Items of property and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. Cost includes expenditures that are directly attributable to the acquisition of the asset. 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. Gains and losses on disposal of an item of property and equipment are determined by comparing the proceeds from disposal with the carrying amount of property and equipment and are recognized in profit or loss. Property and equipment is assessed annually for indicators of impairment.

2. Significant accounting policies (continued)

Property and equipment (continued)

Depreciation

The estimated useful lives and the methods of depreciation for the current and comparative periods are as follows:

Asset	Basis
Computer and office equipment	Straight-line over 3 years
Equipment and software	Straight-line over 5 years
Furniture and fixtures	Straight-line over 3 years

Depreciation methods, useful lives and residual values are reviewed at each reporting period and adjusted as appropriate.

Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognized in profit or loss as incurred.

Development activities involve a plan or design for the production of 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. These criteria will be deemed by the Company to have been met when revenue is received by the Company and management has determined that it has sufficient resources to market and sell its product offerings.

Upon a determination that the criteria to capitalize development expenditures have been met, the expenditure capitalized will include the cost of materials, direct labour, and overhead costs that are directly attributable to preparing the asset for its intended use. Other development expenditures are expensed as incurred. Capitalized development expenditures will be measured at cost less accumulated amortization and accumulated impairment losses. No development costs have been capitalized to date.

Leases and right-of-use assets

At inception of a contract, the Company assesses whether a contract is, or contains, a lease. Contracts that convey the right to control the use of an identified asset for a period of time in exchange for consideration are accounted for as leases giving rise to right-of-use assets.

At the commencement date, a right-of-use asset is measured at cost, where cost comprises: (a) the amount of the initial measurement of the lease liability; (b) any lease payments made at or before the commencement date, less any lease incentives received; and (c) any initial direct costs incurred by the Company. The Company subsequently measures a right-of-use asset at cost less any accumulated depreciation and any accumulated impairment losses; and adjusted for any re-measurement of the lease liability. Right-of-use assets are depreciated over the shorter of the asset's useful life and the lease term.

2. Significant accounting policies (continued)

Leases and right-of-use assets (continued)

A lease liability is initially measured at the present value of the unpaid lease payments using the Company's incremental borrowing rate. Subsequently, the Company measures a lease liability by: (a) increasing the carrying amount to reflect interest on the lease liability; (b) reducing the carrying amount to reflect the lease payments made; and (c) remeasuring the carrying amount to reflect any reassessment or lease modifications, or to reflect revised in-substance fixed lease payments. Each lease payment is allocated between repayment of the lease principal and interest. Interest on the lease liability in each period during the lease term is allocated to produce a constant periodic rate of interest on the remaining balance of the lease liability. Except where the costs are included in the carrying amount of another asset, the Company recognizes in profit or loss (a) the interest on a lease liability and (b) variable lease payments not included in the measurement of a lease liability in the period in which the event or condition that triggers those payments occurs.

Share-based compensation

The grant-date fair value of share-based payment awards granted to employees is recognized as an employee expense, with a corresponding increase in contributed surplus, 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 met the related service and non-market performance conditions at the vesting date.

For equity-settled share-based payment transactions with non-employees, the Company measures the goods or services received, and the corresponding increase in contributed surplus, directly, at the fair value of the goods or services received, unless that fair value cannot be estimated reliably. If the Company cannot estimate reliably the fair value of the goods or services received, it measures their value by reference to the fair value of the equity instruments granted.

Finance costs

Finance costs comprise interest expense on borrowings, bank charges, loans and accretion on debentures.

Income taxes

Income tax comprises current and deferred tax. Income tax is recognized in profit or loss except to the extent that it relates to items recognized directly in equity or other comprehensive income, in which case the income tax is also recognized directly in equity or other comprehensive income.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable in respect of previous years. Current tax assets and current tax liabilities are only offset if a legally enforceable right exists to offset the amounts and the Company intends to settle on a net basis, or to realize the asset and settle the liability simultaneously.

2. Significant accounting policies (continued)

Income taxes (continued)

Deferred tax is recognized in respect of all qualifying temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the financial statements. Deferred income tax is determined on a non-discounted basis using tax rates and laws that have been enacted or substantively enacted at the end of the reporting period and are expected to apply when the deferred tax asset or liability is settled. Deferred tax assets are recognized to the extent that it is probable that the assets can be recovered. Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset tax assets and liabilities and when the deferred tax balances relate to the same taxation authority.

Deferred tax assets are recognized to the extent future recovery is probable. At each reporting period end, deferred tax assets are reduced to the extent that it is no longer probable that sufficient taxable earnings will be available to allow all or part of the asset to be recovered.

Loss per share

Basic loss per share is computed by dividing the net loss available to common shareholders by the weighted average number of shares outstanding during the reporting period. Diluted loss per share is computed similar to basic loss per share except that the weighted average shares outstanding are increased to include additional shares for the assumed exercise of stock options and warrants, if dilutive. The number of additional shares is calculated by assuming that outstanding stock options and warrants were exercised and that the proceeds from such exercises were used to acquire common stock at the average market price during the reporting periods. The inclusion of the Company's stock options and warrants in the computation of diluted loss per share has an anti-dilutive effect and therefore they have been excluded from the calculation of diluted loss per share.

New standards not yet adopted and interpretations issued but not yet effective

Certain pronouncements were issued by the IASB or the IFRIC that are mandatory for accounting periods commencing on or after January 1, 2023. There are no relevant IFRS's or IFRS interpretations that are not yet effective that would be expected to have a material impact on the consolidated financial statements.

3. Capital risk management

The Company’s objective in managing capital is to safeguard its ability to continue as a going concern and to sustain future development of the business. In the management of capital, the Company includes shareholders’ equity, excluding accumulated other comprehensive income (loss). The Company’s objective is met by retaining adequate equity to provide for the possibility that cash flows from assets will not be sufficient to meet future cash flow requirements. In order to maintain or adjust its capital structure, the Company may issue new shares or units. The Board of Directors does not establish quantitative return on capital criteria for management. The Company is not subject to any externally imposed capital requirements and the Company’s overall strategy with respect to capital management remains unchanged from the year ended December 31, 2021.

4. Financial instruments

The carrying values of cash, accounts receivable, accounts payable and accrued liabilities, and current portion of loans payable are considered representative of their respective fair values due to the short-term period to maturity. The long-term portion of loans payable approximate their fair values as the interest and discount rates are considered market rates.

IFRS 13 *Fair Value Measurement* ("IFRS 13") establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The three levels of the fair value hierarchy are as follows:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level 2: Inputs other than quoted prices that are observable for the asset or liability either directly (ie. as prices) or indirectly (ie. derived from prices); and
- Level 3: Inputs that are not based on observable market data.

The Company does not have any financial instruments classified at fair value.

The Company's financial instruments are exposed to certain financial risks, including credit risk, liquidity risk, market risk and foreign currency risk.

Credit risk

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

The Company limits its exposure to credit risk on cash by placing these financial instruments with high- credit quality financial institutions and only investing in liquid, investment grade securities.

4. Financial instruments (continued)

Credit risk (continued)

The carrying amount of accounts receivable is reduced through the use of an allowance account and the amount of the loss is recognized in profit or loss within operating expenses. When a receivable balance is considered uncollectable it is written off against the allowance. Subsequent recoveries of amounts previously written off are credited against operating expenses in profit or loss. Within the accounts receivable, all amounts receivable are considered to be collectible. As at December 31, 2022, the Company does not have any accounts receivable that is overdue and no bad debts have been recorded for year ended December 31, 2022.

Amounts receivable from the Government for grants or sales tax refunds are considered to have no credit risk.

Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they come due. The Company manages its liquidity risk by monitoring forecasted and actual cash flows, as well as anticipated investing and financial activities. The majority of the Company's financial liabilities are due within 90 days.

The following table consists of accounts payable and accrued liabilities and sets out contractual maturities (representing undiscounted contractual cash flows) of the financial liabilities outstanding at December 31, 2022:

	2023	2024	2025	2026	Total
Accounts payable and accrued liabilities	$ 964,106	$ -	$ -	$ -	$ 964,106
Lease liability	70,820	84,984	88,229	88,524	332,557
Loan payable	69,453	32,604	32,604	32,604	167,265
	$ 1,104,379	**$ 117,588**	**$ 120,833**	**$ 121,128**	**$ 1,463,928**

The contractual maturities of commitments at period end are included in (note 20).

Market risk

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

Foreign currency risk

The majority of the Company's total expenditures were denominated in CDN$ in 2022 (2021 - CDN$). The Company's capital transactions are denominated in CDN$ and the Company now maintains most of its cash in CDN$. Foreign currency risk reflects the risk that the Company's earnings will be impacted by fluctuations in exchange rates.

With all other variables held constant, a 10% point increase in the value of the US$ relative to the CDN$ would increase (decrease) net loss by $39,322 (December 31, 2021 - $41,373).

The objective of the Company's foreign exchange risk management activities is to minimize transaction exposures and the resulting volatility of the Company's earnings. The Company manages this risk by pricing sales in CDN$ where possible. The Company has not entered into any forward foreign exchange contracts.

(Expressed in Canadian Dollars)

4. Financial instruments (continued)

Foreign currency risk (continued)

The Company was exposed to currency risk for the following assets (liabilities) as follows:

	December 31, 2022 US$	December 31, 2021 US$
Cash	**34,808**	10,820
Accounts payable and accrued liabilities	**(433,359)**	(424,546)
Total	**(398,551)**	(413,726)

5. Accounts receivable

	As at December 31, 2022	**As at December 31, 2021**
Trade accounts receivable	**$ 43,567**	$ -
Goods and services taxes receivable	**330,611**	197,494
Total	**$ 374,178**	$ 197,494

6. Property and equipment

Cost	**Total**
Balance, December 31, 2020	**$ 163,852**
Additions	4,257
Balance, December 31, 2021	168,109
Balance, December 31, 2022	**$ 168,109**
Accumulated Depreciation	
Balance, December 31, 2020	**$ 138,595**
Depreciation for the year	13,488
Balance, December 31, 2021	$ 152,083
Depreciation for the year	9,141
Balance, December 31, 2022	**$ 161,224**
Carrying Value	
Balance, December 31, 2021	$ 16,026
Balance, December 31, 2022	**$ 6,885**

(Expressed in Canadian Dollars)

7. Accounts payable and accrued liabilities

	As at December 31, 2022	As at December 31, 2021
Trade and other payables	**$ 841,973**	$ 988,587
Accrued management salaries and other payroll liabilities	**23,374**	23,374
Accrued liabilities	**98,759**	38,906
Total	**$ 964,106**	$ 1,050,867

8. Loans payable

In April 2020, the Company received a $40,000 loan through the Canada Emergency Business Account program ("CEBA"). The CEBA was launched by the Government of Canada in response to the global COVID-19 health crisis, and has been implemented by financial institutions in cooperation with Export Development Canada. In December 2020, the Government of Canada increased the CEBA loan for eligible businesses from $40,000 to $60,000. In October 2021 the Company received an additional $20,000 loan. The loans have no repayment terms and are non-interest bearing during the initial term, until December 31, 2022. If the loan balances are repaid in full on or before December 31, 2022, 25% of the loans will be forgiven. The forgivable portion of the loan has been accounted for as a government grant. On December 31, 2022, any remaining outstanding loan balances will be converted into three-year term loans at fixed interest rates of 5% per annum.

During the year ended December 31, 2022, the Government of Canada announced that the deadline to repay loans under the Canada Emergency Business Account program would be extended by one year (that is from December 31, 2022 to December 31, 2023). As of January 1, 2024, the loan balance will bear interest at 5% and will be repayable on maturity on December 31, 2025.

The loan is summarized as follows:

	As at December 31, 2022	As at December 31, 2021
Loan payable	**$ 45,000**	$ 30,000
Government grant income	**-**	(5,000)
Loan payable received	**-**	20,000
	$ 45,000	$ 45,000

In December 2020, the Company received $130,400 as part of the Regional Economic Growth Through Innovation program (Regional Relief and Recovery Fund ("RRRF")) to support enterprises to enable recovery from economic disruptions associated with COVID-19. In April 2021, the company received the balance of $32,600 for a total loan of $163,000. The loan is repayable starting April 1, 2023 until March 1, 2028 at an amount of $2,717 per month. The loan has been recorded at its fair value on initial recognition based on the discounted future cash flow at a market rate of interest of 19.5%. The benefit of the below-market rate of interest was measured as the difference between the initial fair value of the loan and the proceeds received.

(Expressed in Canadian Dollars)

8. Federal loans (continued)

	As at December 31, 2022	As at December 31, 2021
Loan payable	**$ 80,377**	$ 118,106
Fair value adjustment	**-**	(52,106)
Accretion	**17,508**	14,377
	97,885	80,377
Less: Current portion on loan	**(4,827)**	-
	93,058	80,377

9. Right-of-use asset and lease liability

The Company entered into a 5 year office lease on October 1, 2017. The Company used its incremental borrowing rate of 10.92% as the discount rate of determine the value of its five year office premises lease. The asset is depreciated on a straight-line basis over the lease term, starting October 1, 2017. The lease expired on September 30, 2022.

During the year ended December 31, 2022, the Company entered into a 5 year office lease starting February 1, 2023, and includes a rent free period starting October 1, 2022 and lease payments starting in February 1, 2023. The weighted average incremental borrowing rate applied to lease liabilities was 12%.

Right-of-use asset	**Total**
Balance, December 31, 2020	**$ 61,818**
Depreciation	(35,324)
Balance, December 31, 2021	**26,494**
Additions	321,649
Depreciation	(41,763)
Balance, December 31, 2022	**$ 306,380**

(Expressed in Canadian Dollars)

9. Leases (continued)

Lease liability	**Total**
Balance, December 31, 2020	**$ 77,317**
Interest expense	6,141
Lease payments	(48,866)
Balance, December 31, 2021	**34,592**
Additions	321,648
Interest expense	10,654
Lease payments	(50,701)
Balance, December 31, 2022	**$ 316,193**

	As at December 31, 2022	As at December 31, 2021
Short-term lease liability	**$ 41,815**	$ 34,592
Long-term lease liability	**274,378**	-
Total lease liability	**$ 316,193**	$ 34,592

	Under 1 year	**Between 1 - 2 years**	**Between 3 - 5 years**	**Over 5 years**	**Total**
Lease liability	$ 41,815	$ 120,759	$ 153,619	$ -	$ 316,193
Total	**$ 41,815**	**$ 120,759**	**$ 153,619**	**$ -**	**$ 316,193**

10. Share capital

a) Authorized share capital

The Company has authorized share capital of an unlimited number of common shares without nominal or par value and an unlimited number of preferred shares without nominal or par value. No preferred shares have been issued. Common shareholders are entitled to receive dividends as declared by the Company at its discretion and are entitled to one vote per share at the Company's annual general meeting.

(Expressed in Canadian Dollars)

10. Share capital (continued)

b) Common shares issued

	Number of common shares	Amount
Balance, December 31, 2020	**90,062,382**	**$ 31,009,342**
Units issued as part of public offering ((i) and (note 12))	15,490,500	8,055,060
Fair value of warrants in units issued	-	(3,124,932)
Share issuance costs	-	(1,349,392)
Warrants exercised	26,750,322	4,111,116
Fair value of warrants exercised	-	193,550
Reclassification of warrants from contributed surplus	-	760,784
Stock options exercised	4,776,250	780,124
Reclassification of stock options from contributed surplus	-	446,712
Liabilities settled with shares (ii)	763,627	166,421
Deferred share units exercised	142,500	6,250
Conversion of convertible debentures	17,573,324	1,158,922
Balance, December 31, 2021	155,558,905	$ 42,213,957
Warrants exercised	260,000	29,900
Reclassification of warrants from contributed surplus	-	21,528
Stock options exercised (note 11)	1,005,000	298,450
Reclassification of stock options from contributed surplus	-	111,429
Balance, December 31, 2022	**156,823,905**	**$ 42,675,264**

i) Public offering 2021

On October 20, 2021, the Company closed a offering of 15,490,500 (“Units”), at a price of $0.52 per Unit for aggregate gross proceeds of $8,055,060. Each Unit consists of one common share of the Company (a “Common Share”) and one Common Share purchase warrant (each whole purchase warrant, a “Warrant”). Each Warrant will entitle the holder thereof to purchase one common share at an exercise price of $0.70 (the “Exercise Price”) at any time up to 60 months following Closing (as defined below). In the event that the volume weighted average trading price of the common shares for ten (10) consecutive trading days exceeds $1.00, the Company may, within 10 business days of the occurrence of such event, deliver a notice (including a press release) to the holders of Warrants accelerating the expiry date of the Warrants to the date that is 30 days following the date of such notice. The Warrants were valued using the Black-Scholes model and recorded as contributed surplus (see (note 12)).

In connection with the offering, the Company paid a cash commission of $535,774, legal and other costs of $267,540 and has issued 1,030,335 compensation options (the “Compensation Options”). Each Compensation Option is exercisable for one unit at $0.52 per option for a period of 60 months following the closing of the offering. The Compensation Option were valued using the Black-Scholes model and recorded as contributed surplus (see (note 12)).

(Expressed in Canadian Dollars)

10. Share capital (continued)

b) Common shares issued (continued)

ii) Liabilities settled with shares

- On February 2, 2021, the Company issued 666,666 common shares to a consultant in payment of $60,000 of consulting fees. The common shares issued had a price of $0.19 based on the fair value. As a result, the Company recorded a loss of $66,667.

- On February 23, 2021 the Company issued 96,961 common shares in payment of $23,270 of interest owing on the Convertible Debentures I and II. The common shares issued had a price of $0.41 based on the fair value. As a result, the Company recorded a loss on debt settlement of $16,480. Two directors of the Company received a total of 30,186 common shares.

11. Stock options

The Company has adopted an incentive stock option plan in accordance with the policies of the Exchange (the "Stock Option Plan") which provides that the Board of Directors of the Company may from time to time, at its discretion, grant to Directors, Officers, employees and consultants of the Company non-transferable options to purchase common shares, provided that the number of common shares reserved for issuance under the Stock Option Plan shall not exceed ten percent (10%) of the issued and outstanding common shares. In addition, the number of common shares reserved for issuance in any one period to any one optionee shall not exceed five percent (5%) of the issued and outstanding common shares and the number of common shares reserved for issuance to any one consultant will not exceed two percent (2%) of the issued and outstanding common shares. The Board of Directors determines the price per common share and the number of common shares which may be allotted to each Director, Officer, employee and consultant and all other terms and conditions of the option, subject to the rules of the Exchange.

	Number of stock options		Weighted average exercise price
Balance, December 31, 2020	**6,240,000**	**$**	**0.12**
Granted	6,635,000		0.27
Exercised	(4,776,250)		0.17
Expired	(765,000)		0.29
Balance, December 31, 2021	**7,333,750**	**$**	**0.21**
Granted	4,425,000		0.37
Exercised	(1,005,000)		0.30
Expired	(1,000,000)		0.36
Balance, December 31, 2022	**9,753,750**	**$**	**0.26**

(Expressed in Canadian Dollars)

11. Stock options (continued)

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

	December 31, 2022	December 31, 2021
Expected option life	1.00 - 10.01 years	1.00 - 10.01 years
Risk-free rate	1.20% - 3.74%	0.14% - 1.65
Expected forfeiture rate	0.00%	0.01% to 6%
Expected volatility	79.3% - 143.9%	96.8% - 138.4%
Dividend yield	nil	nil

The weighted average grant date fair value of options granted during the year ended December 31, 2022, is $0.15 (December 31, 2021 - $0.19)

The following table reflects the actual stock options issued and outstanding as of December 31, 2022:

Grant price range	Weighted average exercise price ($)	Weighted average remaining contractual life (years)	Number of options outstanding	Number of options vested
<$0.25	0.11	6.89	4,893,750	4,033,750
$0.26 - $0.50	0.39	4.41	4,660,000	2,505,000
<$0.51	0.65	1.76	200,000	-
	0.26	**5.60**	**9,753,750**	**6,538,750**

For the year ended December 31, 2022, share-based compensation of $798,053, was recognized in the statement of loss and comprehensive loss (year ended December 31, 2021 - $898,300)

12. Warrants

The following table reflects the continuity of warrants for the year ended December 31, 2022 and December 31, 2021:

	Number of warrants	Weighted average exercise price
Balance, December 31, 2020	**23,586,132**	**$ 0.110**
Issued (i)	15,620,835	0.690
Exercised	(23,326,132)	0.100
Balance, December 31, 2021	15,880,835	$ 0.680
Exercised	(260,000)	0.115
Balance, December 31, 2022	**15,620,835**	**$ 0.680**

(Expressed in Canadian Dollars)

12. Warrants (continued)

The following table reflects the warrants outstanding as of December 31, 2022:

Number of warrants outstanding	Exercise price ($)	Expiry date
14,590,500	0.70	October 20, 2026
1,030,335	0.52	October 20, 2026
15,620,835	**0.68**	

13. Government Grants and Contributions

Other income for the year ended December 31, 2022 consists of $107,888 (year ended December 31, 2021 - $73,919) contribution from the National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) under a Contribution Agreement for partial reimbursement of salary and contractor costs for research and development work on next generation product features.

14. Personnel costs

Personnel costs for the years ended December 31, 2022 and December 31, 2021 were as follows:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Salaries, fees and short-term benefits	**$ 953,277**	$ 598,366
Share-based compensation	**798,053**	898,297
Total personnel cost	**$ 1,751,330**	$ 1,496,663

For the year ended December 31, 2022 share-based compensation of $394,668, was expensed for consultants (year ended December 31, 2021 - $641,356), and was recorded in general and administrative, research and development and sales and marketing share-based compensation expense.

15. Finance costs

Finance costs for the year ended December 31, 2022 and December 31, 2021 were as follows:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Bank charges and fees	**$ 6,978**	$ 5,944
Interest received	**(25,177)**	-
Interest expense	**9,300**	12,960
Accretion on debentures and transaction costs	**18,862**	(50,872)
Total finance cost	**$ 9,963**	$ (31,968)

(Expressed in Canadian Dollars)

16. Loss per share

For the year ended December 31, 2022, basic and diluted loss per share has been calculated based on the loss attributable to common shareholders of $4,872,800 (year ended December 31, 2021 - $3,881,030) and the weighted average number of common shares outstanding of 155,994,206 (year ended December 31, 2021 - 136,097,000). Diluted loss per share did not include the effect of stock options and warrants as they are anti-dilutive.

17. Income taxes

a) Current income tax expense

The reconciliation of the combined Canadian federal and provincial statutory income tax rate of 26.5% (2021 - 26.94%) to the effective tax rate is as follows

	Year Ended December 31, 2022	Year Ended December 31, 2021
Net loss for the year	**$ (4,872,800)**	$ (3,881,030)
Expected tax recovery	**(1,291,290)**	(1,028,474)
Non-deductible expenses	**196,910**	275,746
Change in unrecognized deferred tax assets	**1,094,380**	752,805
Change in tax rates	**-**	(77)
Income tax provision (recovery)	**$ -**	$ -

The statutory income tax rate represented is a blended U.S. and Canadian statutory tax rate. The operations of the Company are in both Canada and in the U.S. and therefore this rate would provide a more meaningful representation of the tax consequences.

b) Deferred tax assets

The following table summarizes the components of deferred tax:

	2022	2021
Deferred Tax Assets		
Capital lease obligation	**$ 81,190**	$ -
Deferred Tax Liabilities		
Right to use assets	**(81,190)**	-
	$ -	**$ -**

Deferred tax assets and liabilities have been offset where they relate to income taxes levied by the same taxation authority and the Company has the legal right and intent to offset.

(Expressed in Canadian Dollars)

17. Income taxes (continued)

c) Unrecognised deferred tax assets

Deferred taxes are provided as a result of temporary differences that arise due to the differences between the income tax values and the carrying amount of assets and liabilities. Deferred tax assets have not been recognized in respect of the following deductible temporary differences:

	Year Ended December 31, 2022	Year Ended December 31, 2021
Share issuance costs	**$ 596,470**	$ 280,631
Equipment and right of-use assets	**78,070**	34,242
Payroll difference	**-**	11,787
Change in unrecognized temporary differences	**-**	19,997
Capital lease obligation	**9,810**	-
Operating tax losses carried forward - Canada	**31,414,270**	12,299,326
Operating tax losses carried forward - US	**24,763,650**	-
Total unrecognized deferred tax assets	**$ 56,862,270**	$ 12,645,983

18. Functional expense breakdown

Components of operating expenses were as follows:

General and administration	**Year Ended December 31, 2022**	**2021**
General and administration	**$ 2,319,513**	$ 1,811,363
Share-based payments	**736,002**	861,955
Depreciation of property and equipment	**42,881**	36,517
Total general and administration	**$ 3,098,396**	$ 2,709,835

Research and development	**Year Ended December 31, 2022**	**2021**
Research and development	**$ 989,501**	$ 423,057
Share-based payments	**53,189**	22,598
Depreciation of property and equipment	**7,704**	11,686
Total research and development	**$ 1,050,394**	$ 457,341

Sales and marketing	**Year Ended December 31, 2022**	**2021**
Sales and marketing	**$ 810,562**	$ 527,622
Share-based payments	**8,862**	13,743
Depreciation of property and equipment	**319**	609
Total sales and marketing	**$ 819,743**	$ 541,974

(Expressed in Canadian Dollars)

19. Related party transactions

The Company defines key management personnel as Board of Directors, Chief Executive Officer, Chief Financial Officer and Chief Science Officer.

a) Remuneration of directors and key management personnel of the Company was as follows:

	Year Ended December 31, 2022	2021
Salaries, fees and short term benefits	**$ 469,021**	$ 240,000
Share-based payments	**323,527**	119,115
Directors fees (i)	**48,000**	-
Total remuneration	**$ 840,548**	$ 359,115

b) Other transactions of directors and key management personnel of the Company was as follows:

i) For the year ended December 31, 2022, the Company expensed $60,459 (year ended December 31, 2021 - $65,076) to Marrelli Support Services Inc. ("Marrelli") for: the Chief Financial Officer ("CFO") of the Company; and for bookkeeping services. The CFO is an employee of Marrelli. These services were incurred in the normal course of operations for general accounting and financial reporting matters.

ii) For the year ended December 31, 2022, the Company expensed $nil (year ended December 31, 2021 - $80,000) to Hodgkinson Equities Corp., a company controlled by a director of the Company. These services were incurred in the normal course of operations for general accounting and financial reporting matters.

iii) On January 13, 2021, directors of the Company converted $250,000 of the February 6, 2020 convertible debt into 3,333,332 shares.

iv) On February 16, 2021, a director of the Company exercised 100,000 options at an exercise price of $0.10, with an expiry date of January 12, 2031.

v) On February 19, 2021, an officer and director of the Company exercised 466,799 warrants at an exercise price of $0.10, with an expiry date of February 6, 2022.

vi) On February 23, 2021, the Company issued to an officer and directors of the Company, 30,186 shares for debt for final interest on convertible debt.

vi) As at December 31, 2022, $2,318 (December 31, 2021 - $98,873) was included in accounts payable and accrued liabilities due to related parties.

20. Commitments

The Company has the following contractual obligations as of December 31, 2022:

Fiscal year ended	2022	2023	2024-2029	Total
University of Washington Technology License Minimum Annual Royalty (1)	$ 6,854	$ 6,854	$ 41,124	$ 54,832

1) The annual Royalty due to the University of Washington under the Technology License Agreement is the higher of 1.5% of gross sales or the Minimum Annual Royalty of US$5,000.

21. Subsequent events

i) Subsequent to December 31, 2022, the Company granted the following options:

- 250,000, to an officer with an expiry date of January 1, 2033, with an exercise price of $0.30, vesting over 3 years;
- 465,000 to employees and officers with an expiry date of January 20, 2033, with an exercise price of $0.30, 116,250 vested immediately and the remaining vesting over 3 years;
- 25,000 to a consultant with an expiry date of January 20, 2033, with an exercise price of $0.30, vesting by December 31, 2023;
- 75,000 to a consultant with an expiry date of January 20, 2033, with an exercise price of $0.30, vested immediately;
- 50,000 to consultants with an expiry date of January 20, 2033, with an exercise price of $0.30, 12,500 vested immediately and the remaining vesting over 3 years; and
- 250,000 to directors with an expiry date of January 20, 2033, with an exercise price of $0.30, vesting by December 31, 2023.

ii) Subsequent to December 31, 2022, the following options expired unexercised:

- 750,000, expiry date of January 20, 2023, with an exercise price of $0.40, and
- 400,000, expiry date of February 5, 2023, with an exercise price of $0.25.