



THIOGENESIS THERAPEUTICS, CORP.

Management's Discussion and Analysis

For the Year Ended

December 31, 2023

(Expressed in Canadian Dollars)

OVERVIEW

Thiogenesis Therapeutics, Corp., (“TTI” or the “Company”) (formerly: Rozdil Capital Corporation) is a clinical stage biotechnology company that was incorporated under the *Ontario Business Corporations Act* on May 3, 2018. On March 22, 2022, the Company filed articles of amendment and changed its name from Rozdil Capital Corporation to Thiogenesis Therapeutics, Corp.

Rozdil Capital Corporation (“Rozdil”) was a capital pool company listed on the TSX Venture Exchange (the “TSXV”) that received approval from the TSXV for its acquisition of all the outstanding shares of Thiogenesis Therapeutics, Inc., (“TTI US”) as its proposed “Qualifying Transaction” as defined under TSXV policies. The transaction constituted a reverse take-over (“RTO”) by Rozdil which acquired all of the issued and outstanding shares of TTI US by way of a securities exchange agreement in exchange for common shares of Rozdil.

On March 31, 2022, the Company closed its Qualifying Transaction (the “QT”) as defined by Policy 2.4 of the TSXV with TTI US. The Company received final TSXV acceptance, and the common shares of the Company resumed trading on the TSXV on April 13, 2022 (the “Listing Date”) under the new name “Thiogenesis Therapeutics, Corp.”, with the trading symbol “TTI”.

The registered head office of the Company is located at 4 King Street West, Suite 401, Toronto, Ontario, M5H 1B6. The Company’s public filings can be accessed and viewed via the System for Electronic Data Analysis and Retrieval (“SEDAR+”) at www.sedarplus.com.

The Company’s consolidated financial statements have been prepared after giving effect to the RTO of Thiogenesis Therapeutics, Corp., (formerly: Rozdil Capital Company) by TTI US. As a result of the RTO, the former shareholders of TTI US acquired control of the Company and the QT is accounted for as a share-based payment, in accordance with International Financial Reporting Standards (“IFRS”) 2, by which TTI US acquired the net assets of the Company. The consolidated financial statements are prepared as a continuation of the financial statements of TTI US (the accounting acquirer) and its wholly owned subsidiaries. As a result, comparative information included herein is solely that of TTI US and its wholly owned subsidiaries.

Effective January 1, 2022, the Company changed its presentation currency to Canadian dollars (“CAD”) from US dollars (“US”), to better reflect the Company’s business activities, the consolidated financial statements for all periods presented in the consolidated financial statements are presented in CAD. The comparative period amounts have been translated into CAD in accordance with IAS 21, “The Effects of Changes in Foreign Exchange Rates”, as follows:

- assets and liabilities presented and previously reported in US have been translated into CAD using period-end exchange rates of 1.2732 (January 1, 2021) and 1.2678 (December 31, 2021);
- consolidated statements of operations and other comprehensive loss have been translated using the average foreign exchange rates prevailing during the reporting period of 1.2535 (January 1, 2021 to December 31, 2021);
- shareholder’s equity balances have been translated using historical foreign exchange rates in effect on the date that transactions occurred; and
- resulting exchange differences have been recorded within accumulated other comprehensive loss.

Note 15 to the consolidated financial statements for the year ended December 31, 2023, details the impact of the change in classification of shareholders’ equity.

The following Management’s Discussion and Analysis (“MD&A”) of the Company should be read in conjunction with the Company’s consolidated financial statements for the year ended December 31, 2023, together with notes thereto. The Company’s consolidated financial statements for the year ended December 31, 2023, have been prepared in accordance with International Financial Reporting Standards (“IFRS”), as issued by the International Accounting Standards Board (“IASB”) and interpretations issued by the IFRS Interpretations Committee (“IFRIC”). All amounts herein are presented in Canadian dollars, unless otherwise noted.

This Management's Discussion and Analysis is dated April 26, 2024, and has been approved by the Board of Directors of the Company.

ABOUT TTI

Thiogenesis Therapeutics, Corp. is a clinical-stage biopharmaceutical company that is developing proprietary, new chemical entities ("NCEs"), that are prodrugs and that act as precursors to thiol-active compounds. Thiols or thiol derivatives are organosulfur compounds that have an R-SH (sulfur & hydrogen) functional group, where the functional group is responsible for chemical reactions independent of the overall compound. Highly reactive sulfur makes thiols highly active in chemistry and creates several promising mechanisms of action, that have potential as therapeutics, including acting as a powerful antioxidant.

Lead Compound - TTI-0102

The Company's lead compound TTI-0102 is an asymmetric disulfide, it is made up of two thiols that lead to two independent cysteamine molecules. Cysteamine is a thiol that has been rigorously studied and tested, it is the active ingredient used in drugs to treat the lysosomal storage disease - (nephropathic) cystinosis. TTI-0102 has been developed to address the important obstacles facing thiol-based drugs, their short half-life, strong gastrointestinal ("GI") side-effects and dosing limitations.

Prodrugs are drugs that are inactive and only become active when they are metabolized. As an oral prodrug, TTI-0102 is metabolized into cysteamine molecules after it is ingested. Further, the metabolic process acts as a gating mechanism that eliminates the spike in drug that occurs with immediate release cysteamine, Cystagon®, that is commonly linked to its GI side effects. Reducing side effects makes it possible for increased dosing and has shown potential for TTI-0102 to be administered once-a-day.

A Phase 1 clinical trial on healthy volunteers in Australia, evaluating safety and dose escalation, was successfully completed in Q2-2022. The trial demonstrated that the dosing of TTI-0102 could be increased by 4x the equivalent of cysteamine used to treat cystinosis with Cystagon®; without significant side effects and while maintaining a minimum therapeutic level for up to twenty-four hours.

Regulatory - EMA & FDA

TTI has submitted a Clinical Trial Application ("CTA") to the European Medicines Agency ("EMA") for the treatment of mitochondrial encephalomyopathy, lactic acidosis and stroke like episodes ("MELAS"), upon clearance by EMA, a multi-center Phase 2 clinical trial is anticipated to be initiated in 2024.

TTI is planning additional submissions to the Food and Drug Administration ("FDA") and EMA for human efficacy trials in; other mitochondrial diseases, Rett syndrome and pediatric non-alcoholic fatty liver disease ("NAFLD/NASH"). As a prodrug, TTI-0102 is eligible to use the accelerated 505 (b)(2) regulatory pathway with FDA and its equivalent with EMA, which would allow the use of third-party safety data (i.e. Cystagon®) - saving significant time and cost in advancing to human efficacy trials.

MELAS

Mitochondrial encephalomyopathy, lactic acidosis, and stroke like episodes ("MELAS") is a genetic disorder of the mitochondria. It is a disease that affects the function and development of the brain, causing neurological impairment, lowering oxygen levels in the blood, fatigue and seizures. Currently, there are no approved treatments for MELAS, and there are estimated to be over 20,000 patients with MELAS (*Gunnewick et al., 2019*) in the European Union. The key mechanisms of action for TTI-0102, as applied to MELAS, are its thiol-disulfide balancing mechanism (redox activity) and acting as a precursor to glutathione (antioxidant) and taurine (cytoprotective).

Rett Syndrome

Rett syndrome is a neurodevelopmental disorder that affects mostly young girls. It is caused by a mutation in the MECP2 gene, which is critical in the development of the brain. Symptoms from Rett syndrome include, loss of motor skills, loss of communication abilities, and seizures; however, its most distinguishing symptom is noticeable abnormal hand movements. There are estimated to be over 20,000 girls with Rett syndrome in Europe (<https://doi.org/10.1186/s13643-023-02169-6>) and clinical trials are planned for France. Key mechanisms of action of TTI-0102 for Rett syndrome are the promotion of Brain Derived Neurotrophic Factor ("BDNF"), important in neuronal survival and growth, and as a precursor to the important antioxidant glutathione, that reduces oxidative stress in the mitochondria.

Pediatric NASH

Non-alcoholic fatty liver disease (“NAFLD”) is condition that occurs when there is a build-up of fat in the liver. When NAFLD progresses to non-alcoholic steatohepatitis (“NASH”) there is inflammation of the liver and liver damage, often leading to cirrhosis (where the liver is scarred permanently). Cirrhosis may lead to liver cancer or liver failure with the need for a transplant. Building on cysteamine’s decades long history as a safe pediatric drug, treating children with cystinosis, TTI is targeting the unmet medical need of pediatric NASH as its initial indication in liver disease. There are up to 6 million children with pediatric NAFLD and estimated to be over 1.0 million children that have NASH in the US (<https://www.niddk.nih.gov/health-information/liver-disease/naflid-nash-children/definition-facts>). There are important links between a healthy mitochondria and NASH; suggesting that potential interventions that target the thiol/disulfide balance and its impact on mitochondrial health could have a clinical benefit on NASH. In addition, there are potential benefits in treating NASH from increasing exposure to antioxidants and anti-inflammatories like those provided by TTI-0102.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS AND RISK FACTORS

Certain statements and information in this Management’s Discussion and Analysis (“MD&A”) contain forward-looking statements or forward-looking information under that may not be based on historical fact, including, without limitation, statements containing the words “believe”, “may”, “plan”, “will”, “estimate”, “continue”, “anticipate”, “intend”, “expect”, “predict”, “project”, “potential”, “continue”, “ongoing”, “could”, “would”, “seek”, “target” or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words and similar expressions.

Forward-looking statements are necessarily based on estimates and assumptions made by us in light of our experience and perception of historical trends, current conditions and expected future developments, as well as factors that we believe are appropriate. Forward-looking statements in this MD&A include, but are not limited to, statements relating to:

- *the initiation, timing, cost, progress and success of our research and development programs;*
- *our ability to advance product candidates into, and successfully complete, preclinical studies and clinical trials;*
- *the implementation of our business model and strategic plans;*
- *estimates of our expenses, future revenue, capital requirements and our need for additional financing;*
- *our commercialization, marketing, manufacturing, quality assurance, finance and management capabilities and strategy;*
- *our ability to engage and retain the employees, consultants or third party research and development contractors required to grow our business;*
- *our ability to achieve profitability;*
- *our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others; and*
- *our expectations regarding market risk, including overall market conditions, interest rate changes and foreign currency fluctuations.*

Such forward-looking statements reflect our current views with respect to future events, are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company as of the date of such statements, are inherently subject to significant scientific, business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance, achievements, prospects or opportunities to be materially different from any future results, performance or achievements that may be expressed or implied by such forward-looking statements. In making the forward-looking statements included in this MD&A, the Company has made various material assumptions, including, but not limited to: (i) obtaining regulatory approvals for future clinical trials; (ii) obtaining positive results from the Company’s clinical trials; (iii) assumptions regarding general business and economic conditions; (iv) the Company’s ability to successfully develop experimental compounds; (v) the availability of financing on reasonable terms; (vi) the Company’s ability to attract and retain skilled staff; (vii) assumptions regarding market competition; (viii) the products offered by the Company’s competitors; and (ix) the Company’s ability to protect patents and proprietary rights.

In evaluating forward-looking statements, current and prospective shareholders should specifically consider various factors, including the risks outlined in this MD&A under the heading "Risks and Uncertainties". Should one or more of these risks or uncertainties, or a risk that is not currently known to us, materialize, or should assumptions underlying the forward-looking statements contained herein prove incorrect, actual results may vary materially from those described herein. All forward-looking statements herein are made as of the date of this MD&A and we do not intend, and do not assume any obligation, to update these forward-looking statements except as required by applicable securities laws. Investors are cautioned that forward-looking statements are not guarantees of future performance and are inherently uncertain. Accordingly, investors are cautioned not to put undue reliance on forward-looking statements.

OVERALL PERFORMANCE

In May 2022 the Company completed its Phase 1 clinical trial administering oral TTI-0102 in healthy volunteers in Australia. The Phase 1, "Open-Label, Dose-Escalation Study - to Evaluate Safety, Tolerability and Pharmacokinetics of Oral TTI-0102 Compared to Cystagon® (cysteamine bitartrate) in Healthy Volunteers", demonstrated that TTI-0102 was safe and well tolerated at dose levels ranging from 600 mg cysteamine-base equivalent to 2400 mg cysteamine-base equivalent with no serious adverse events. The pharmacokinetic ("PK") profile suggests the potential for once-a-day dosing at target therapeutic levels compared to the required four times a day dosing with Cystagon®.

The results from this study will be used to support the Company's Investigational Medicinal Product Dossier ("IMPD") submission in Europe and its Investigational New Drug ("IND") submissions in the US for human efficacy trials in multiple disease indications including MELAS, Rett syndrome and pediatric NASH.

During the year ended December 31, 2023, the Company closed private placements and issued an aggregate 6,001,167 common shares at \$0.75 per common share for gross proceeds of \$4,500,875.

For the year ended December 31, 2023, the Company recorded a net loss of \$5,063,011 and a net loss per share, basic and diluted of \$0.13 compared to net loss of \$3,924,251 and a net loss per share, basic and diluted of \$0.16 for the year ended December 31, 2022. The increase in net loss experienced during the year ended December 31, 2023, was primarily related to an increase of \$3,087,065 to \$4,162,957 in research and development costs compared to \$1,075,892 for the year ended December 31, 2022, and an increase in general and administrative of \$109,977 to \$1,043,064 versus \$933,087 record for the year ended December 31, 2022.

For the year ended December 31, 2023, interest income was \$171,165 versus \$6,181 for the year ended December 31, 2022, and loss on foreign exchange of \$28,155 was recorded for the year ended December 31, 2023, compared to Nil for the year ended December 31, 2022.

During the year ended December 31, 2023, the Company recorded a listing expense for the RTO of Nil compared to \$2,007,653 for the year ended December 31, 2022, and a gain on derivative liabilities of Nil compared to \$61,465 for the year ended December 31, 2022.

Grant income recognized during fiscal 2023 was Nil compared to \$34,132 recorded for fiscal 2022, and borrowing costs were Nil for the year ended December 31, 2023, compared to \$4,123 for the year ended December 31, 2022.

For the year ended December 31, 2023, the Company recognized a loss on settlement of convertible debt of Nil versus \$5,274 for the year ended December 31, 2022.

REVERSE TAKEOVER TRANSACTION (“RTO”)

Pursuant to a securities exchange agreement dated February 8, 2021, as amended, among the Company, TTI US and the security-holders of TTI US (the "Securities Exchange Agreement"), the Company agreed to acquire all of the outstanding securities of TTI US resulting in TTI US becoming a wholly owned subsidiary of the Company (the “Transaction”).

In exchange for all of the outstanding securities of TTI US, the former shareholders of TTI US received a total of 12,000,000 common shares of the Company, representing 70% of the total issued and outstanding shares of the Company, prior to giving effect to the Special Warrant financing) and the settlement of the convertible promissory notes.

For accounting purposes, the Transaction was accounted for as a RTO, with TTI US identified as the accounting acquirer, and the Company identified as the accounting acquiree. As the Company did not meet the definition of a business under IFRS 3, the Transaction was accounted for as a Share-based payment in accordance with IFRS 2.

The fair value of share consideration comprises the 5,139,100 common shares maintained by the original shareholders of the Company, fair valued by reference to the special warrant financing completed concurrent with the RTO transaction. The Company incurred an additional \$72,463 comprising legal, accounting, and filing fees which have been included in the listing expense in the consolidated statements of operations and other comprehensive loss.

On the acquisition of the Company by TTI US, the Company’s share capital, reserves and deficit were eliminated.

Net Assets (Liabilities) Acquired	
Cash and cash equivalents	\$ 107,457
Cash held in escrow	3,340,458
Loan receivable	25,332
Accounts receivable	39
Accounts payable and accrued liabilities	(304,333)
Special warrants liability, net	(3,305,458)
Fair Value of Net Assets (Liabilities) Acquired	\$ (136,505)
Fair value of share consideration	\$ 1,798,685
Legal and other costs related to transaction	72,463
	1,871,148
Less fair value of net assets (liabilities) acquired	136,505
Total Listing Expense	\$ 2,007,653

SELECTED ANNUAL INFORMATION

The following tables reflects the summary of results for the years as set out:

	December 31, 2023 (\$)	December 31, 2022 (\$)
Total assets	7,243,000	6,290,572
Total revenue	-	-
Net loss	(5,063,011)	(3,924,251)
Net loss per share, basic and diluted	(0.13)	(0.16)

RESULTS OF OPERATIONS

The following table presents a breakdown of research and development costs for the years set out:

Research and development expenses	For the Years Ended December 31,	
	2023	2022
Subcontract labor	\$1,874,624	\$418,982
Professional fees	591,147	308,457
Stock based compensation	200,600	202,434
Director fees	9,108	9,035
Salaries	261,683	113,010
Travel	65,398	23,974
Shipping	53,561	-
Lab supplies	1,106,836	-
Total research and development	\$4,162,957	\$1,075,892

Subcontract Labor

For the year ended December 31, 2023, subcontract labor was up by \$1,455,642 to \$1,874,624 versus \$418,982 recorded for the year ended December 31, 2022.

The higher subcontract labor costs incurred during the year ended December 31, 2023, was attributed to the Company's increased activity and continued development of its proprietary lead compound TTI-0102.

Professional Fees

For the year ended December 31, 2023, the Company recorded professional fees of \$591,147 up by \$282,690 compared to \$308,457 for the year ended December 31, 2022.

The higher professional fees recorded in the current year, primarily relate to costs associated with the Company's increased research and development and patent activity for its proprietary lead compound TTI-0102.

Stock Based Compensation

For the year ended December 31, 2023, the Company recorded \$200,600 in stock based compensation expense compared to stock based compensation expense of \$202,434 for the year ended December 31, 2022.

Director fees

For the year ended December 31, 2023, the Company recorded director fees of \$9,108 versus \$9,035 for the year ended December 31, 2022.

The fluctuation in director fees in 2023 versus 2022 is related to foreign exchange rates on director fee costs for the Company's Australian subsidiary.

Salaries

For the year ended December 31, 2023, the Company recorded \$261,683 in salaries compared to \$113,010 for the year ended December 31, 2022.

Following the RTO in March 2022, the Company commenced remunerating its CEO, which costs are included in research and development in the Company's statement of operations and other comprehensive loss. In addition, during 2023, the Company's Board of Directors approved an increase in compensation to the CEO.

Travel

For the year ended December 31, 2023, the Company recorded \$65,398 in travel costs versus \$23,974 for the year ended December 31, 2022.

Higher travel costs recorded in 2023, relate to attendance of various international meetings associated with proposed clinical trials and the development of the Company's proprietary lead compound TTI-0102.

Shipping

For year ended December 31, 2023, shipping costs were \$53,561 versus Nil for the year ended December 31, 2022.

The higher shipping costs for the year ended December 31, 2023, was primarily related to increased costs associated with shipping the Company's lead compound.

Lab Supplies

For the year ended December 31, 2023, the Company recorded \$1,106,836 in lab supply costs compared to Nil for the year ended December 31, 2022.

The lab supply costs relate to the pharmaceutical development and manufacture of the Company's second-generation formulation of its lead compound TTI-0102 to potentially be used in future clinical trials.

Total Research and Development

For the year ended December 31, 2023, total research and development costs were \$4,162,957 up by \$3,087,065 from \$1,075,892 for the year ended December 31, 2022. The increase in total research and developments costs for the year ended December 31, 2023, is discussed in detail above.

The following table presents a breakdown of general and administrative costs for the years set out:

General and administrative expenses	For the Years Ended December 31,	
	2023	2022
Professional fees	\$258,418	\$314,856
General and office	27,768	47,590
Stock based compensation	280,314	321,932
Management fees	221,778	97,348
Director fees	97,000	72,533
Public company expenses	45,865	62,460
Investor relations	66,438	-
Travel	45,483	16,368
Total general and administrative	\$1,043,064	\$933,087

Professional Fees

For the year ended December 31, 2023, the Company recorded a decrease in professional fees of \$56,438 to \$258,418 compared to \$314,856 for the year ended December 31, 2022.

Higher professional fees recorded during fiscal 2022 were primarily related to legal, audit and accounting costs associated with going public through the RTO on March 31, 2022.

General and Office

For the year ended December 31, 2023, the Company recorded \$27,768 in general and office costs compared to \$47,590 for the year ended December 31, 2022.

General and office costs include shipping, reprint, computer and internet related expenses, telephone expenses and miscellaneous. The higher general and office costs experienced during the year ended December 31, 2022, primarily relate to increased operations due to going public.

Stock Based Compensation

For the year ended December 31, 2023, the Company recorded \$280,314 in stock based compensation expense compared to stock based compensation expense of \$321,932 for the year ended December 31, 2022.

The decrease in stock based compensation expense for the year ended December 31, 2023, was related to the timing of vesting of certain options granted offset by the November 1, 2023, grant of 50,000 immediately vesting common share purchase options exercisable at \$0.80 per share until October 31, 2028, to a member of the advisory board of the Company. The options were estimated on the date of issue using the Black-Scholes option pricing model.

Management Fees

For the year ended December 31, 2023, the Company recorded management fees of \$221,778 compared to \$97,348 for the year ended December 31, 2022.

Following the RTO, the Company commenced remunerating its CFO which is recorded as management fees in the statement of operations and other comprehensive loss. In addition, during 2023, the Company's Board of Directors approved an increase in compensation to its CFO.

Director Fees

For the year ended December 31, 2023, the Company recorded \$97,000 in director fees compared to \$72,533 for the year ended December 31, 2022.

Following the RTO, the Company commenced compensating independent directors at a rate of US\$6,000 per quarter. In addition, foreign exchange rate fluctuations between US Dollars and CAD Dollars impact the amounts recorded as director fees for each quarter.

Public Company Expenses

For the year ended December 31, 2023, public company expenses were \$45,865 compared to \$62,460 for the year ended December 31, 2022.

Included in public company expenses is stock exchange fees, transfer agent fees, annual meeting costs, shareholders' information and filing fees. The Company incurred higher public company costs during fiscal 2022, related to the RTO.

Investor Relations

For the year ended December 31, 2023, investor relations costs were \$66,438 compared to Nil for year ended December 31, 2022. The increase in investor relations costs for the year ended December 31, 2023, was related to research and valuation costs of the Company and attendance of the Company at international conferences.

Travel

For the year ended December 31, 2023, the Company recorded \$45,483 in travel costs versus \$16,368 for the year ended December 31, 2022.

Higher travel costs experienced during the year ended December 31, 2023, relate to costs associated with attendance of administrative and finance related meetings.

Total General and Administrative

For the year ended December 31, 2023, total general and administrative costs were \$1,043,064 compared to \$933,087 for the year ended December 31, 2022.

The primary increases in general and administrative expenses experienced during the year ended December 31, 2023, are discussed in detail above.

Interest income

For the year ended December 31, 2023, the Company recorded interest income of \$171,165 versus \$6,181 for the year ended December 31, 2022.

Higher interest income for the year ended December 31, 2023, was a result of the interest earned on the increased cash position of the Company.

Loss on foreign exchange

For the year ended December 31, 2023, the Company recorded a loss on foreign exchange of \$28,155 compared to Nil for the year ended December 31, 2022.

The loss on foreign exchange is primarily a result of the exchange difference on the Company's US and EURO cash translated into the Company's functional currency on December 31, 2023.

Listing Expense

In connection with the closing of the RTO on March 31, 2022, the Company recorded \$2,007,653 in listing expenses for the year ended December 31, 2022, compared to Nil in the year ended December 31, 2023(see RTO Note).

Gain on Derivative Liabilities

For the year ended December 31, 2023, the Company recorded a gain on derivative liabilities of Nil compared to gain of \$61,465 for the year ended December 31, 2022.

The change in fair value of derivative liabilities during the respective periods was recognized in the consolidated statements of operations and other comprehensive income (loss). TTI US issued the share purchase warrants with an exercise price in CAD, rather than US dollars (the presentation and functional currency of TTI US) and the fair value was required to be re-measured at each reporting date and adjustments recorded to the consolidated statement of operations and other comprehensive income (loss).

Grant income

For the year ended December 31, 2023, the Company recorded Nil in grant income compared to \$34,132 for the year ended December 31, 2022.

During the first quarter of 2021, the Company's wholly-owned subsidiary, Thiogenesis Australia Pty Ltd., initiated an IND/IMPd-enabling PK and safety study for its lead compound TTI-0102 and received related grants from the Australian government.

Borrowing Costs

For the year ended December 31, 2023, the Company recorded borrowing costs of Nil versus borrowing costs of \$4,123 for the year ended December 31, 2022.

Borrowing costs were associated with the Company's loans payable, promissory notes and convertible promissory notes all of which were extinguished during the year ended December 31, 2022.

Loss on Settlement of Convertible Note

For the year ended December 31, 2023, the company recorded a loss on settlement on convertible debt in the amount of Nil compared to \$5,274 in the comparable year. During the year ended December 31, 2022, Company issued 771,075 common shares at \$0.35 per share as settlement of the convertible notes and interest due in the amount of \$264,602 (US\$211,749), resulting in a loss on settlement of debt.

Net Loss

For the year ended December 31, 2023, the Company recorded a net loss of \$5,063,011 and a net loss per share, basic and diluted of \$0.13 compared to net loss of \$3,924,251 and a net loss per share, basic and diluted of \$0.16 for the year ended December 31, 2022. Components of the increase in net loss for the year ended December 31, 2023, versus the year ended December 31, 2022, are discussed in detail above.

Other Comprehensive Income (Loss)***Foreign currency translation***

For the year ended December 31, 2023, the Company recorded a gain on foreign currency translation of \$7,584 versus a loss of \$13,785 for the year ended December 31, 2022.

The foreign currency translation gains and losses result from translating TTI US's balance sheets from United States Dollars, Thiogenesis Australia Pty Ltd.'s balance sheets from Australian Dollars and Thiogenesis Therapeutics, EURL's balance sheets from Euro into the Company's functional currency, the Canadian Dollar at the period end exchange rate, and their respective results of operations converted at average exchange rates for the period.

QUARTERLY RESULTS

The following tables reflect the summary of quarterly results for the periods set out.

For the quarter ending	December 31, 2023 (\$)	September 30, 2023 (\$)	June 30, 2023 (\$)	March 31, 2023 (\$)
Total assets	7,243,000	3,686,136	4,698,727	5,346,771
Total revenue	Nil	Nil	Nil	Nil
Net loss	(2,071,393)	(1,054,545)	(870,392)	(1,066,681)
Net loss per share, basic and diluted	(0.05)	(0.03)	(0.02)	(0.03)

For the three months ended December 31, 2023, the Company recorded a net loss of \$2,071,393 and a net loss per share basic and diluted of \$0.05 and recorded research and development costs of \$1,787,421, general and administrative expenses of \$338,273, interest income of \$35,784 and a gain on foreign exchange of \$18,517.

For the three months ended September 30, 2023, the Company recorded a net loss of \$1,054,545 and a net loss per share basic and diluted of \$0.03 and recorded research and development costs of \$864,360, general and administrative expenses of \$230,946, interest income of \$44,918 and a loss on foreign exchange of \$4,157.

For the three months ended June 30, 2023, the Company recorded a net loss of \$870,392 and a net loss per share basic and diluted of \$0.02 and recorded research and development costs of \$676,456, general and administrative expenses of \$201,624, interest income of \$50,203 and a loss on foreign exchange of \$42,515.

For the three months ended March 31, 2023, the Company recorded a net loss of \$1,066,681 and a net loss per share basic and diluted of \$0.03 and recorded research and development costs of \$876,396, general and administrative expenses of \$230,545 and interest income of \$40,260.

For the quarter ending	December 31, 2022 (\$)	September 30, 2022 (\$)	June 30, 2022 (\$)	March 31, 2022 (\$)
Total assets	6,290,572	1,635,371	2,236,834	3,505,380
Total revenue	Nil	Nil	Nil	Nil
Net loss	(426,490)	(705,782)	(515,991)	(2,275,988)
Net loss per share, basic and diluted	(0.01)	(0.02)	(0.02)	(0.19)

For the three months ended December 31, 2022, the Company recorded a net loss of \$426,490 and a net loss per share, basic and diluted of \$0.01 and recorded research and development costs of \$119,174 and general and administrative expenses of \$519,955. During the quarter ended December 31, 2022, the Company closed a private placement for gross proceeds of \$5,309,700.

For the three months ended September 30, 2022, the Company recorded a net loss of \$705,782 and a net loss per share, basic and diluted of \$0.02. During the three months ended September 30, 2022, the Company recorded research and development costs of \$524,528 and general and administrative expenses of \$181,409.

For the three months ended June 30, 2022, the Company recorded a net loss of \$515,991 and a net loss per share, basic and diluted of \$0.02. During the three months ended June 30, 2022, the Company recorded research and development costs of \$208,237 and general and administrative expenses of \$288,810.

For the three months ended March 31, 2022, the Company recorded a net loss of \$2,275,988 and a net loss per share of \$0.19 and recorded listing expenses of \$1,973,753 related to the RTO. The Company received gross proceeds of \$3,500,000 released from escrow, from a private placement of 10,000,000 special warrants.

CAPITAL EXPENDITURES

The Company had no capital expenditures during the year ended December 31, 2023, or during the year ended December 31, 2022.

FINANCING ACTIVITIES

During the year ended December 31, 2023, the Company received proceeds, net of issue costs of \$4,121,226 from a private placement of 6,001,167 common shares.

During the year ended December 31, 2022, the Company received proceeds, net of issue costs of \$3,305,458, from a private placement of 10,000,000 special warrants of the Company. During the year ended December 31, 2022, the Company closed a private placement and issued 10,619,400 common shares for proceeds net of issue costs of \$4,879,970 assumed net cash of \$107,457 upon closing the RTO and received \$116,375 upon the exercise of 332,500 finder's options.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity

Management has determined that cash flows for operations, clinical trial expenses, and general and administrative expenses will be funded by the Company's current cash and future private placements and other funding mechanisms.

Cash Flow Summary

The following table sets out the cash flow summary for the respective periods:

	For the Year Ended	
	December 31,	
	2023	2022
Cash and cash equivalents beginning of period	\$6,195,961	\$62,549
Cash flow used in operating activities	(3,248,463)	(2,089,693)
Cash flow provided by investing activities	-	107,457
Cash flow provided by financing activities	4,121,226	8,126,631
Exchange rate effect	7,584	(10,983)
Cash and cash equivalents, end of period	\$7,076,308	\$6,195,961

Cash flow used in operating activities for the year ended December 31, 2023, was \$3,248,463 which increased by \$1,158,770 from cash used in operations of \$2,089,693 for the year ended December 31, 2022. The increase in cash flow used in operating activities during fiscal 2023 was primarily due to an increase in net loss offset by fluctuations in accounts receivable, grant receivable, accounts payable and accrued liabilities and prepaid expenses.

Cash flow provided by investing activities was Nil during the year ended December 31, 2023, versus \$107,457 in the year ended December 31, 2022. On March 31, 2022, the Company assumed cash of \$107,457 upon completion of the RTO.

Cash flow provided by financing activities was \$4,121,226 for the year ended December 31, 2023, compared to \$8,126,631 for the year ended December 31, 2022. During the year ended December 31, 2023, the Company received net proceeds of \$4,121,226 from a private placement of 6,001,167 common shares. During the year ended December 31, 2022, the Company received net proceeds of \$8,185,428 from the issuance of share capital and \$116,375 upon the exercise of finder's options. During fiscal 2022, the Company repaid promissory notes of \$50,172 and loans payable of \$125,000.

Working Capital

At December 31, 2023, the Company had working capital of \$5,530,134 compared to a working capital of \$5,983,421 as of December 31, 2022, representing a decrease in working capital of \$453,287.

The decrease in working capital was primarily related to increases in net loss and accounts payable and accrued liabilities.

MATERIAL ACCOUNTING POLICIES

The Company's material accounting policies are summarized in Note 3 to the Consolidated Financial Statements for the year ended December 31, 2023.

Significant Accounting Estimates and Judgments

The preparation of these consolidated financial statements in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of income and expenses during each reporting period. Actual results could differ from those estimates. The key sources of estimation uncertainty that have a significant risk of causing material adjustment to the amounts recognized in the consolidated financial statements are:

Recognition of internally generated intangible assets

The Company is in the process of undergoing clinical trials for its thiol-active therapeutic compound, TTI-0102. Accordingly, management applies judgment in its assessment of the activities being undertaken and whether certain costs meet the definition of internally generated intangible assets in the research or development phase.

Recognition of deferred tax assets

The recognition of deferred tax assets is based upon whether it is probable that sufficient and suitable taxable profits will be available in the future or whether taxable temporary differences will reverse such that deferred tax assets can be utilized. Recognition therefore involves a degree of judgment regarding the future financial performance of the Company or the timing of the reversal of deferred tax liabilities where deferred tax assets have been recognized.

Fair Value of Stock Based Compensation and Warrants

In determining the fair value of stock based payments, the calculated amounts are not based on historical cost, but is derived based on assumptions (such as the expected volatility of the price of the underlying security, expected hold period before exercise, dividend yield and the risk-free rate of return) input into a pricing model. The resulting value calculated is not necessarily the value that the holder of the option or warrant could receive in an arm's length transaction, given that there is no market for the options or compensation warrants and they are not transferable. Similar calculations are made in estimating the fair value of the warrant component of an equity unit. The assumptions used in these calculations are inherently uncertain. Changes in these assumptions could materially affect the related fair value estimates.

Adoption of New Accounting Pronouncements

Amendments to IAS 1 – Presentation of Financial Statements

In January 2020, the IASB issued amendments to IAS 1 Presentation of Financial Statements, to clarify its requirements for the presentation of liabilities as current or non-current in the statement of financial position. This amendment applies retrospectively for annual reporting periods beginning on or after January 1, 2023. There were no material changes to the Company's current year or comparative year upon adoption.

Amendments to IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors

In February 2021, the IASB issued amendments to IAS 8 Accounting Policies, Changes in Account Estimates and Errors which were incorporated into Part I of the CPA Canada Handbook – Accounting in June 2021. The amendments introduce a new definition of 'accounting estimates' to replace the definition of 'change in accounting estimates' and also include clarifications intended to help entities distinguish changes in accounting policies from changes in accounting estimates. The amendments are effective for annual periods beginning on or after January 1, 2023. There was no material impact as a result of adopting this amendment.

Amendments to IAS 12 – Income Taxes

In May 2021, the IASB issued an amendment to IAS 12 Income Taxes to clarify the accounting for deferred tax on transactions such as leases and decommissioning obligations. The scope of the recognition exemption in IAS 12 no longer applies to transactions that, on initial recognition, give rise to equal taxable and deductible temporary differences. The amendments are effective for annual periods beginning on or after January 1, 2023. There was no material impact as a result of adopting this amendment.

Accounting standards issued but not yet effective.

Certain new accounting standards and interpretations have been published that are not mandatory for the current year and have not been early adopted as follows. The Company is reviewing the new standards but does not expect their future adoption to have a material impact on the Company in the current or future reporting years.

Amendments to IAS 1 – Covenants

The amendment that clarifies how an entity classifies debt and other financial liabilities as current or noncurrent in particular circumstances. The amendments are effective for annual periods beginning on or after January 1, 2024. The Company does not expect to have a material impact as a result of the adoption of the amendment.

Amendments to IAS 16 – Leases

The amendment clarifies how a seller-lessee subsequently measures sale and leaseback transactions that satisfy the requirements in IFRS 15: Revenue to be accounted for as a sale. The amendment is effective for annual period beginning on or after January 1, 2024. The Company does not expect to have a material impact as a result of the adoption of the amendment.

GRANT RECEIVABLE

As at December 31, 2023, and December 31, 2022, the grant receivable from Australian government was Nil and \$34,742, respectively.

CONVERTIBLE PROMISSORY NOTES

On August 21, 2020, as amended on August 31, 2021, the Company issued to two directors of the Company convertible promissory notes for proceeds of \$272,118 (US \$209,000) with interest rate of 4% per annum and due on December 31, 2021. The notes automatically convert into the equity instruments that the Company issues in the event an equity security raise with total proceeds of not less than US\$2,000,000 is completed while the notes are outstanding. The conversion price is the lesser of (i) the price paid per share for equity securities in the financing multiplied by 0.80 and (ii) the quotient resulting from dividing US\$5,000,000 by the number of outstanding shares of common stock immediately prior to the financing. The Company accounted for the notes as a liability as the conversion feature is contingent on a qualified financing outside the control of the Company (the “Notes”).

On October 31, 2021, the Notes were amended to reflect if a change of control or qualified financing is consummated, all interest on the Notes would stop accruing after December 31, 2020. As a result of the Securities Exchange Agreement, the Company stopped accruing interest on the Notes.

On December 31, 2021, the Notes were amended to extend the principal and interest due date to January 31, 2022, and on January 31, 2022, the Notes were further amended to extend the principal and interest due date to, March 31, 2022.

As of December 31, 2021, the principal and interest owing on the Notes amounted to \$268,455 (USD\$211,749). On March 31, 2022, following the closing of the RTO, the Company issued 771,075 common shares as settlement of the convertible notes and interest due in the amount of \$264,602 (US\$211,749), resulting in a loss on settlement of debt totalling \$5,274 (see Share Capital and Reserves).

PROMISSORY NOTES

On December 31, 2020, the Company issued non-interest-bearing promissory notes to the Chief Executive Officer of the Company for proceeds of US\$39,200. As of December 31, 2021, the balance of the promissory notes was \$49,698 (US\$39,200). On April 8, 2022, the promissory notes in the amount of \$50,172 (US \$39,200) were repaid in full.

LOANS PAYABLE

On December 1, 2021, the Company received proceeds of \$65,000 and issued a promissory note, due on demand and bearing interest at 4% per annum to a director of the Company. For the year ended December 31, 2022, The Company recorded \$715 of interest. (December 31, 2021: \$217). During the year ended December 31, 2022, the Company repaid the note of \$65,000 and paid interest of \$932.

On December 1, 2021, the Company received proceeds of \$60,000 and issued a promissory note, due on demand and bearing interest at 4% per annum to a director of the Company. For the year ended December 31, 2022, the Company recorded \$690 of interest. (December 31, 2021: \$200). During the year ended December 31, 2022, the Company repaid the note of \$60,000 and paid interest of \$890.

In connection with the RTO, on December 1, 2021, TTI US received proceeds of \$25,000 and issued a demand promissory note to the Company, bearing interest at 4% per annum. For the year ended December 31, 2022, the Company recorded interest of \$332. Upon closing of the RTO, the intercompany note and interest was eliminated upon consolidation.

DERIVATIVE LIABILITIES

On March 23, 2021, TTI US closed a non-brokered private placement and issued 2,000,000 units for gross cash proceeds of \$674,813 (US \$537,186). Each unit was comprised of one (1) common share and one-half (1/2) of a common share purchase warrant (each whole warrant, a "Warrant") (the "Units"). Each whole warrant will entitle the holder to acquire one common share of the Company at a price of \$0.50 per warrant for a period of two years following the closing date. As the warrants are held with an exercise price in CAD which was different from the functional currency of TTI US (USD) the warrants were treated as a financial liability and the fair value movement during the period was recognized in the consolidated statements of operations and other comprehensive loss. The amount allocated to derivative liabilities based on fair value using the Black-Scholes pricing model was \$214,220 assuming an estimated life of 2 years, a risk-free rate of 0.23% an expected dividend rate of 0.00%, and an expected annual volatility of 137%. At December 31, 2021, the Company revalued the warrants using the Black-Scholes pricing model and the amount allocated to derivative liabilities was \$150,413 assuming an estimated life of 1.2 years, a risk-free rate of 0.95% an expected dividend rate of 0.00%, and an expected annual volatility of 127%. At December 31, 2021, the Company recorded a gain on the revaluation of \$63,807.

Upon closing of the RTO on March 31, 2022, TTI US revalued the 1,000,000 outstanding warrants using the Black-Scholes pricing model with the fair value determined to be \$88,948 assuming a fair market share price of \$0.35 an estimated life of 1 year, a risk-free interest rate of 2.27% an expected dividend rate of 0.00%, and an expected annual volatility of 93%.

Upon closing of the RTO, TTI US cancelled the 1,000,000 warrants and re-issued them, modifying the legal life of the warrants from March 21, 2023, to March 31, 2024. In connection with the change in legal life, the incremental change in fair value of the warrants was determined to be \$109,703 using the Black-Scholes pricing model, assuming a fair market share price of \$0.35, an estimated life of 2 years, a risk-free rate of 2.27%, an expected dividend rate of 0%, and an expected annual volatility of 127%. The incremental change in the fair value of the warrants was recognized directly within accumulated deficit.

On re-issuance, the warrants resided in the Company with a functional currency (CAD) that was consistent with the currency that the exercise price of the warrants are denominated in. As a result, the warrants were deemed to meet the definition of an equity instrument and the fair value of the warrants totaling \$198,651 was reallocated to contributed surplus (see Share Capital and Reserves).

The following table set out the changes in derivative liabilities during the respective years.

	Number of Derivative Warrants	Value Assigned	Average Exercise Price
Balance, December 31, 2021	1,000,000	150,413	0.50
Fair value re-measurement		(61,465)	-
Modification of warrants	-	109,703	-
Fair value transferred to reserves	(1,000,000)	(198,651)	0.50
Balance, December 31, 2023 and 2022	-	-	-

OFF-BALANCE SHEET ARRANGEMENTS

The Company has no off-balance sheet arrangements.

CAPITAL MANAGEMENT

The capital managed by the Company includes the components of shareholders' equity as described in the consolidated statements of changes in shareholders' equity. The Company is not subject to externally imposed capital requirements. There were no changes in the Company's capital management for the year ended December 31, 2023.

The Company's objectives of capital management are to create long-term value and economic returns for its shareholders. It does this by seeking to maximize its resources to fund the growth and development of its business, and to support the working capital required to maintain its ability to continue as a going concern. The Company manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of its assets by seeking to limit shareholder dilution and optimize its cost of capital while maintaining an acceptable level of risk. In order to maintain or adjust its capital structure, the Company considers all sources of financing reasonably available to it, including but not limited to the issuance of new capital, the issuance of new debt, the receipt of government grants and the sale of assets in whole or in part.

FINANCIAL RISK MANAGEMENT

The Company is exposed in varying degrees to a variety of financial instrument related risks.

Credit Risk

Credit risk is primarily related to the Company's receivables and cash and cash equivalents and the risk of financial loss if a counterparty to a financial instrument fails to meet its contractual obligations. At December 31, 2023, accounts receivable was \$85,315 of which \$79,312 was Goods and Services Tax (December 31, 2022: \$21,245 of which of \$13,927 was Goods and Services Tax). At December 31, 2023, the grant receivable from the Australian Government was Nil (December 31, 2022: \$34,742).

The Company's maximum exposure to credit risk is as follows:

	December 31, 2023	December 31, 2022
Cash and cash equivalents	\$7,076,308	\$6,195,961
Account receivable	6,003	6,270
Grant receivable	-	34,742
	\$7,082,311	\$6,236,973

Currency Risk

The Company holds financial instruments denominated in CAD, US, AUD and Euros that may differ from the functional currency of the entity in which the financial instrument resides in. A significant change in the currency exchange rates between the currency of the financial instrument and the functional currency of the Company could have a material effect on the Company's financial instruments.

As at December 31, 2023, a 5% fluctuation in the foreign exchange rate would have an impact of approximately \$195,049 (December 31, 2022 - \$254) in the Company's consolidated statements of operations and other comprehensive loss.

Interest Rate Risk

The Company's exposure to interest rate risk relates to its ability to earn interest income on cash balances at variable rates. The fair value of the Company's cash accounts is relatively unaffected by changes in short term interest rates. The income earned from certain bank accounts is subject to the movements in interest rates. Currently, this risk will have an immaterial effect on operations.

Liquidity Risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's main source of cash resources has been through equity financings, grants and loans. The Company's financial obligations are limited to its current liabilities which have contractual maturities of less than one year. The Company manages liquidity risk as part of its overall "Management of Capital".

The following tables illustrate the contractual maturities of financial liabilities as at December 31, 2023 and December 31, 2022, respectively:

December 31, 2023	Payments Due by Year \$				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Accounts payable and accrued liabilities	1,712,865	1,712,865	-	-	-
Total	1,712,865	1,712,865	-	-	-

December 31, 2022	Payments Due by Year \$				
	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Accounts payable and accrued liabilities	307,151	307,151	-	-	-
Total	307,151	307,151	-	-	-

Fair Value

Financial instruments measured at fair value are classified into one of three levels in the fair value hierarchy according to the relative reliability of the inputs used to estimate the fair values. The three levels of the fair value hierarchy are:

- 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 or indirectly; and
- Level 3 – Inputs that are not based on observable market data.

As of December 31, 2023 and 2022, cash and cash equivalents are recorded at fair value under level 1 within the fair value hierarchy. During the year ended December 31, 2022, derivative liabilities previously recorded at fair value under level 2 were reclassified to shareholders' equity.

Management believes that the recorded values of accounts receivable, grant receivable, accounts payable and accrued liabilities approximate their current fair values because of their nature and anticipated short term settlement dates.

SHARE CAPITAL AND RESERVES

Share Capital

Authorized:

Unlimited common shares

Issued:

The following table sets out the changes in common shares during the year:

	Note	#	\$
Balance, December 31, 2021		12,000,000	1,052,631
Common shares issued for RTO	(i)	5,139,100	1,798,685
Common shares issued on conversion of special warrants, net	(ii)	10,000,000	3,264,117
Common shares issued for convertible promissory notes	(iii)	771,075	269,876
Exercise of finder's options	(iv)	332,500	146,585
Private placement	(v)	10,619,400	4,596,281
Balance, December 31, 2022		38,862,075	11,128,175
Private placement	(vi)	6,001,167	3,984,688
Common shares cancelled	(vii)	(292,667)	(102,433)
Balance, December 31, 2023		44,570,575	15,010,430

(i) In connection with the closing of the RTO on March 31, 2022, the Company issued 5,139,100 common shares at a fair value of \$0.35 per common share to effect the RTO amounting to total consideration of \$1,798,685.

(ii) In connection with the RTO on July 30, 2021, the Company closed in escrow a non-brokered private placement of 10,000,000 special warrants of the Company at a purchase price of \$0.35 per special warrant for gross proceeds of \$3,500,000. Each special warrant was converted into one (1) common share of the Company without further consideration (the "Special Warrants"). The conversion of the Special Warrants took place on March 31, 2022.

In connection with the Special Warrants financing, the Company paid a cash finder's fees equal to an aggregate of \$159,250 and issued 455,000 compensation options (the "Finder's Options") with an estimated fair value of \$41,341. In addition, the Company recorded approximately \$35,000 in direct legal costs related to the Special Warrant financing.

(iii) In connection with the closing of the RTO on March 31, 2022, the Company issued 771,075 common shares at a fair value of \$0.35 per common share amounting to total consideration of \$269,876 to settle convertible promissory notes and interest (see Convertible Promissory Notes).

(iv) During the year ended December 31, 2022, 332,500 finder's options were exercised at \$0.35 per share for proceeds of \$116,375. The fair value attributed to these finder's options of \$30,210 was transferred to share capital upon exercise.

(v) On November 18, 2022, the Company closed a private placement and issued 10,619,400 common shares at \$0.50 per common share for gross proceeds of \$5,309,700. In connection with the private placement, the Company recorded \$76,980 in direct costs and paid cash finder's fees of \$352,750 and issued 675,500 compensation options (the "Finder's Options") with an estimated fair value of \$283,689.

(vi) On December 15, 2023, and December 19, 2023, the Company closed private placements and issued an aggregate of 6,001,167 common shares at \$0.75 per common share for gross proceeds of \$4,500,875. In connection with the private placement, the Company recorded \$72,463 in direct costs and paid cash finder's fees of \$307,186 and issued 409,582 compensation options (the "Finder's Options") with an estimated fair value of \$136,538.

(vii) The Company's Board of Directors approved a re-structuring of certain release dates under a Lock-up Agreement dated February 10, 2021, between an individual shareholder and the Company and on December 21, 2023, 292,667 common shares were tendered back to the Company for cancellation. The assigned value of the common shares was \$102,433 and Company recorded it as a reduction in share capital and a reduction in deficit.

Escrow Securities

CPC Escrow

An aggregate of 2,775,000 common shares were held in escrow in accordance with the CPC Policy of the TSXV and were released as to 10% immediately following the issuance of the Final TSXV Bulletin dated April 11, 2022 (the "Bulletin") and as to 15% every six months thereafter. At December 31, 2023, 1,057,500 common shares were held in escrow.

Value Security Escrow

In addition to the CPC Escrowed common shares a further 10,737,869 common shares will be held in escrow after giving effect to the RTO and were released as to 10% on the date of the Bulletin and as to 15% every six months thereafter. At December 31, 2023, 4,832,042 common shares were held in escrow.

Weighted Average Shares Outstanding

The following table summarizes the weighted average shares outstanding:

	For the Years Ended December 31	
	2023	2022
Weighted Average Shares Outstanding, basic and diluted	39,129,334	25,291,554

The effects of any potential dilutive instruments on loss per share are anti-dilutive and therefore have been excluded from the calculation of diluted loss per share.

Common Share Purchase Options

The Company has established a stock option plan for its directors, officers and consultants under which the Company may grant options from time to time to acquire a up to a fixed 20% of the outstanding common shares as of August 15, 2022 or 5,648,535. The exercise price of each option granted under the plan shall be determined by the Company's Board of Directors.

Options may be granted for a maximum term of ten years from the date of the grant. They are exercisable as determined by the Directors when the option is granted. Options expire within 90 days of termination of employment or holding office as director or officer of the Company, within 30 days of termination of consultants of the Company and, in the case of death, expire within a maximum period of one year after such death, subject to the expiry date of the option.

For the year ended December 31, 2023, the Company recorded stock based compensation expense of \$480,914 (December 31, 2022: \$524,366).

The following table is a summary of the status of the Company's common share purchase options and changes during the year:

	Note	Number of Options	Weighted Average Exercise Price \$
Balance December 31, 2021, and 2020	(i)	300,000	0.20
Common share purchase options granted	(ii)	2,750,000	0.40
Balance, December 31, 2022		3,050,000	0.38
Common share purchase options granted	(iii)	50,000	0.80
Balance, December 31, 2023		3,100,000	0.39

(i) In connection with the closing of the RTO on March 31, 2022, the Company modified the terms of 300,000 stock options previously granted by TTI US on June 26, 2020, to be exercisable at a price of \$0.20 per common share (previously exercisable at US\$0.125) up until March 31, 2025 (previously expiring exercisable up until June 26, 2030), to now vest immediately. As the modification of the terms of the options resulted in a decrease in the incremental fair value, the modification resulted in Nil impact to the stock-based compensation recognized during the year ended December 31, 2022.

(ii) On March 31, 2022, the Company granted 1,950,000 common share purchase options exercisable at \$0.35 per share until March 31, 2032, to directors and officers of Company. The options vest 25% on each of September 30, 2022, March 31, 2023, September 30, 2023, and March 31, 2024. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.35, dividend yield 0%, risk-free interest rate of 2.40%, expected volatility of 125% and an expected life of ten years. The fair value attributed to these options was \$653,242.

On March 31, 2022, the Company granted 150,000 common share purchase options exercisable at \$0.35 per share until March 31, 2025, to consultants of the Company. The options vest 50% on each of September 30, 2022, and March 31, 2023. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.35, dividend yield 0%, risk-free interest rate of 2.28%, expected volatility of 132% and an expected life of three years. The fair value attributed to these options was \$39,664.

On April 12, 2022, the Company granted 50,000 common share purchase options exercisable at \$0.35 per share until March 31, 2025, to a consultant of the Company. The options vest 50% on each of September 30, 2022, and March 31, 2023. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.35, dividend yield 0%, risk-free interest rate of 2.39%, expected volatility of 132% and an expected life of three years. The fair value attributed to these options was \$13,365.

On August 30, 2022, the Company granted 150,000 common share purchase options exercisable at \$0.50 per share until August 31, 2032, to members of the advisory board of the Company. The options vest 25% on each of March 31, 2023, August 30, 2023, March 31, 2024, and August 30, 2024. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.55, dividend yield 0%, risk-free interest rate of 3.06%, expected volatility of 124% and an expected life of ten years. The fair value attributed to these options was \$79,172.

On December 8, 2022, the Company granted to directors and a consultant, respectively 350,000 and 100,000 common share purchase options exercisable at \$0.60 per share until December 8, 2032. The options vest 25% on each of June 30, 2023, December 31, 2023, June 30, 2024, and December 31, 2024. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.60, dividend yield 0%, risk-free interest rate of 2.80%, expected volatility of 123% and an expected life of ten years. The fair value attributed to these options was \$258,004.

(iii) On November 1, 2023, the Company granted 50,000 immediately vesting common share purchase options exercisable at \$0.80 per share until October 31, 2028, to a member of the advisory board of the Company. The fair value of the options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.80, dividend yield 0%, risk-free interest rate of 4.3%, expected volatility of 133% and an expected life of five years. The fair value attributed to these options was \$35,098.

The following table is a summary of the status of the Company's Finder's Options and changes during the years:

	Note	Number of Finder's Options	Weighted Average Exercise Price \$
Balance December 31, 2021		-	-
Finder's options granted	(i) (ii)	1,130,500	0.44
Finder's options exercised		(332,500)	0.35
Finder's options expired		(122,500)	0.35
Balance, December 31, 2022		675,500	0.50
Finder's options granted	(iii)	228,247	0.75
Finder's options granted	(iv)	181,335	0.75
Balance, December 31, 2023		1,085,082	0.59

(i) In connection with the Special Warrants financing, the Company issued 455,000 compensation options (the "Finder's Options"). Each Finder's Option is exercisable into one (1) Common Share at a price of \$0.35 per common share until July 29, 2022, subject to an acceleration clause which provides that if the common shares of the Company trade at or above \$0.70 per share for a period of twenty (20) consecutive trading days, the Company may elect to reduce the expiry period of the Finder's Options to twenty (20) days from the date notice of the accelerated expiry is sent to holders of the Finder's Options. The fair value of the Finder's Options was estimated on the date of issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.35, dividend yield 0%, discount rate 2.27%, expected volatility 114%, forfeiture rate 0% and expected life of 0.3 year. The fair value attributed to the Finder's Options was \$41,341.

(ii) In connection with the November 18, 2022, private placement, the Company issued 675,500 compensation options (the "Finder's Options"). Each Finder's Option is exercisable into one (1) common share at a price of \$0.35 per common share until November 18, 2024. The fair value of the Finder's Options was estimated on the date of the issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.64, dividend yield 0%, discount rate 3.86%, expected volatility 117%, forfeiture rate 0% and expected life of two years. The fair value attributed to the Finder's Options was \$283,689.

(iii) In connection with the December 15, 2023, first tranche private placement the Company issued 228,247 compensation options (the "Finder's Options"). Each Finder's Option is exercisable into one (1) common share at a price of \$0.75 per common share until December 15, 2025. The fair value of the Finder's Options was estimated on the date of the issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.75, dividend yield 0%, discount rate 3.94%, expected volatility 80.52%, forfeiture rate 0% and expected life of two years. The fair value attributed to the Finder's Options was \$77,618.

(iv) In connection with the December 19, 2023, final tranche placement closing the Company issued 181,335 compensation options (the "Finder's Options"). Each Finder's Option is exercisable into one (1) common share at a price of \$0.75 per common share until December 19, 2025. The fair value of the Finder's Options was estimated on the date of the issue using the Black-Scholes option pricing model with the following assumptions: share price of \$0.73, dividend yield 0%, discount rate 3.94%, expected volatility 80.39%, forfeiture rate 0% and expected life of two years. The fair value attributed to the Finder's Options was \$58,920.

The following table is a summary of the Company's stock options and Finder's Options outstanding and exercisable as at December 31, 2023 and December 31, 2022, respectively:

Expiry Date	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Number of Options Outstanding	Number of Options Vested (Exercisable)
March 31, 2025	\$0.20	1.25	300,000	300,000
March 31, 2032	\$0.35	8.25	1,950,000	1,462,500
March 31, 2025	\$0.35	1.25	200,000	200,000
August 31, 2032	\$0.50	8.67	150,000	75,000
November 18, 2024	\$0.50	0.88	675,500	675,500
December 8, 2032	\$0.60	8.95	450,000	225,000
October 31, 2028	\$0.80	4.84	50,000	50,000
December 15, 2025	\$0.75	1.96	228,247	228,247
December 19, 2025	\$0.75	1.97	181,335	181,335
As at December 31, 2023	\$0.44	5.66	4,185,082	3,397,582

Expiry Date	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Number of Options Outstanding	Number of Options Vested (Exercisable)
March 31, 2025	\$0.20	2.25	300,000	300,000
March 31, 2032	\$0.35	9.25	1,950,000	487,500
March 31, 2025	\$0.35	2.25	200,000	100,000
August 31, 2032	\$0.50	9.67	150,000	-
November 18, 2024	\$0.50	1.88	675,500	675,500
December 8, 2032	\$0.60	9.94	450,000	-
As at December 31, 2022	\$0.40	7.07	3,725,500	1,563,000

Common Share Purchase Warrants

The following table summarizes the changes in common share purchase warrants for the periods set out:

	Number of Warrants	Weighted Average Price \$
Balance, December 31, 2021	-	-
Warrants reclassified (see Derivative Liabilities)	1,000,000	0.50
Balance, December 31, 2023, and December 31, 2022	1,000,000	0.50

The following table summarizes the outstanding common share purchase warrants as at December 31, 2023 and December 31, 2022, respectively:

Number of Warrants	Exercise Price	Expiry Date	Weighted Average Remaining Life (Years)
1,000,000	\$0.50	March 31, 2024	0.25

Number of Warrants	Exercise Price	Expiry Date	Weighted Average Remaining Life (Years)
1,000,000	\$0.50	March 31, 2024	1.25

RELATED PARTY TRANSACTIONS

The following transactions with individuals related to the Company arose in the normal course of business have been accounted for at the amount agreed to by the related parties.

Compensation of Key Management Personnel

The remuneration of directors and other members of key management personnel during the reporting years were as follows:

	For the Years Ended	
	December 31, 2023	December 31, 2022
Salaries and management fees (1)	\$483,462	\$236,362
Share based compensation (2)	352,307	440,421
Director fees (3)	106,108	81,568
Total	\$941,877	\$758,351

1) Salaries and management fees paid or accrued to the CEO and CFO.

2) Share based compensation recorded on stock options granted to directors and officers.

3) Director fees paid or accrued to directors of the Company.

As of December 31, 2023, included in accounts payable and accrued liabilities was director fees of \$23,867 (December 31, 2022: \$nil) and management fees of \$18,655 payable to a company controlled by the CFO (December 31, 2022: \$nil).

In connection with the RTO closing on March 31, 2022, convertible promissory notes together with accrued interest in the amount of \$264,602 payable to a former director of the Company and the CEO of the Company were settled in full (see Convertible Promissory Notes). As of December 31, 2023, and 2022, included in accounts payable and accrued liabilities was Nil.

At December 31, 2021, the Company had a non-interest bearing promissory note payable to the CEO in the amount of \$49,698 (US \$39,200). On April 8, 2022, the Company paid the promissory note in full in the amount of \$50,172 (see Promissory Notes).

During the year ended December 31, 2023, the Company incurred interest expense totaling \$nil (December 31, 2022: \$1,342) in connection with loans provided to the Company by directors of the Company on December 1, 2021, for principal amounts totaling \$125,000. On May 31, 2022, the principal and accrued interest were repaid in full (see Loans Payable).

SUBSEQUENT EVENTS

Subsequent to the year ended December 31, 2023, 925,000 common share purchase warrants were exercised at \$0.50 per share for proceeds of \$462,500.

On January 15, 2024, the Company granted 325,000 common share purchase options exercisable at \$0.75 per share until January 15, 2029, to consultants of the Company.