

# LOBE SCIENCES LTD.

# Management's Discussion & Analysis

For the years ended August 31, 2024 and 2023

(Expressed in Canadian dollars)

## **MANAGEMENT'S DISCUSSION & ANALYSIS**

This management's discussion & analysis ("MD&A") of the financial condition and results of operations of Lobe Sciences Ltd. ("Lobe", the "Company") and its subsidiaries, or the words "we", "us" or "our", prepared as at December 29, 2024 (the "MD&A Date"), is for the years ended August 31, 2024 and 2023. This MD&A is a supplement to and should be read in conjunction with the Company's audited consolidated financial statements for the years ended August 31, 2024 and 2023 (the "Financial Statements"). The Company's Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards ("IASB") and interpretations of the International Financial Reporting Interpretations Committee. All amounts presented herein are stated in Canadian dollars unless otherwise indicated. References to "USD" or "US\$" are to United States dollars. The first, second, third and fourth quarters of the Company's fiscal years are referred to as "Q1", "Q3", "Q3" and "Q4", respectively. The years ended August 31, 2024, and 2023, are referred to as "fiscal 2024", and "fiscal 2023", respectively. All dollar amounts are in Canadian dollars, the presentation currency of the Company, except where otherwise noted. The functional currency of the Company and its subsidiaries is disclosed in the notes to the Financial Statements.

This MD&A is prepared by management and has been prepared by reference to the MD&A disclosure requirements established under National Instrument 51-102 *Continuous Disclosure Obligations* of the Canadian Securities Administrators. This discussion covers the years ended August 31, 2024, and 2023 and the subsequent period up to the MD&A Date. This MD&A was approved by the Board of Directors as of the MD&A Date.

### FORWARD LOOKING INFORMATION

This MD&A contains "forward-looking statements" that involve risks and uncertainties. Such information, although considered to be reasonable by the Company's management at the time of preparation, may prove to be inaccurate and actual results may differ materially from those anticipated in the statements made. This MD&A may contain forward-looking statements that reflect the Company's current expectations and projections about its future results. When used in this MD&A, words such as "estimate", "intend", "expect", "anticipate" and similar expressions are intended to identify forward-looking statements, which, by their very nature, are not guarantees of the Company's future operational or financial performance, and are subject to risks and uncertainties and other factors that could cause the Company's actual results, performance, prospects or opportunities to differ materially from those expressed in, or implied by, these forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as at the date of this MD&A or as at the date otherwise specifically indicated herein. Due to risks and uncertainties, including the risks and uncertainties identified above and elsewhere in this MD&A, actual events may differ materially from current expectations.

Such statements reflect management's current views with respect to future events and are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant business, economic, competitive, political and social uncertainties and known or unknown risks and contingencies. Many factors could cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statements. Please see the risk factors discussed under the heading "Risks and uncertainties".

There is a significant risk that such forward-looking statements will not prove to be accurate. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Drug development involves long lead times, is very expensive and involves many variables of uncertainty. Anticipated timelines regarding drug development are based on reasonable assumptions informed by current knowledge and information available to the Company. Every patient treated on future studies can change those assumptions either positively (to indicate a faster timeline to new drug applications and other approvals) or negatively (to indicate a slower timeline to new drug applications and other approvals). This MD&A contains certain forward-looking statements regarding anticipated or possible drug development timelines. Such statements are informed by, among other things, regulatory guidelines for developing a drug with safety studies, proof of concept studies, and pivotal studies for new drug application submission and approval and assumes the success of implementation and results of such studies on timelines indicated as possible by such guidelines, other industry examples, and the Company's development efforts to date. In addition to the factors set out above and those identified in Company's MD&A under the heading "Risks and uncertainties", other factors not currently viewed as material could cause actual results to differ materially from those described in the forward-looking statements.

Although Lobe has attempted to identify important risks and factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements, there may be other factors and risks that cause actions, events or results not to be anticipated, estimated or intended. Accordingly, readers should not place any undue reliance on forward-looking statements.

### **BUSINESS OVERVIEW**

Lobe Sciences Ltd. ("Lobe" or the "Company") is a biopharmaceutical company incorporated under the Business Corporations Act (British Columbia) on May 13, 2010. The Company's head office, principal address, and registered office are located at 1771 Robson Street #1614, Vancouver, BC V6G 3B7.

On November 16, 2020, the Company underwent a reverse takeover of Green Star Biosciences Inc., subsequently changing its name to Lobe Sciences Ltd. The Company divested the acquired brands, intellectual property, leased offices, and production operations related to Green Star's legacy business on March 5, 2021, in exchange for cash and other considerations.

Lobe, through its wholly owned subsidiaries, Alera Pharma, Inc. and Altemia, Inc., is advancing the development of a patented drug candidate aimed at treating neurological disorders, with an initial focus on chronic cluster headache (Alera). Additionally, Lobe has commenced commercial launch activities for an innovative medical food designed to address nutritional deficiencies commonly associated with sickle cell disease (Altemia).

To optimize operational efficiency and avoid unnecessary duplication of overhead costs, Lobe Sciences Ltd. provides centralized services to its subsidiaries, including accounting, finance, and general administrative support.

The Company's common shares are listed on the Canadian Securities Exchange under the symbol "LOBE," on the OTCQB under the symbol "LOBEF," and on the Frankfurt Exchange under the symbol "6YXO.F."

### **HIGHLIGHTS**

## For the years ended August 31, 2024 consolidated financial highlights

 The Company's net loss decreased to \$4,420,727, or \$0.04 per share, compared to net loss of \$4,707,349, or \$0.05 per share, for the year ended August 31, 2024.

# August 31, 2024 compared to August 31, 2023 consolidated balance sheet highlights

- Total assets decreased to \$258,570 compared to \$2,299,491 at August 31, 2023. This decrease is mainly the result of intangible assets being written off during the year.
- The Company's working capital deficiency decreased to \$2,008,849 compared to \$2,140,263 at August 31, 2023 due to the settlement of accounts payable through the issuance of common shares and new convertible notes maturing in 2027.

## **BUSINESS DEVELOPMENT AND OVERVIEW**

An update on business development for Conjugated Psilocin™ and Altemia is provided below.

## Conjugated Psilocin™

Lobe via its subsidiary Alera Pharma, Inc. is developing a patented new chemical entity, Conjugated Psilocin™, previously called L-130, a solid, bioavailable and stable form of psilocin. Conjugated Psilocin is designed as a potential low dose and non-hallucinogenic treatment for a number of CNS disorders. The company's initial focus is on developing Conjugated Psilocin™ as a treatment for chronic cluster headaches, Conjugated Psilocin™ may also have the potential to treat other CNS disorders that are resistant to traditional treatments and as a result, continue to be significant unmet medical needs. These conditions include generalized anxiety disorder, major depressive disorder, post-traumatic stress disorder, and addiction.

Psilocybin and its active metabolite, psilocin, are potent psychoactive tryptamines naturally prevalent in Psilocybe mushrooms. The therapeutic potential of naturally occurring hallucinogenic compounds has intrigued both researchers and clinicians, presenting novel opportunities for treating mental health disorders that are resistant to traditional treatments. Psilocin is the active metabolite of psilocybin. Psilocybin when ingested is converted to psilocin, the compound responsible for the pharmacological effect, by enzymatic dephosphorization. Psilocin is a partial agonist at serotonin receptors, particularly the 5-HT2A receptor. At high concentrations, psilocin is known for its potential hallucinogenic and euphoric effects. Notably, the

therapeutic effects of psilocin and psilocybin may not directly correlate with their hallucinogenic properties, leading to current investigations into the benefits of sub-hallucinogenic dosing. The hallucinogenic experiences reported in most clinical settings may be a side effect of the dose, pharmacokinetics and frequency of dosing rather than a mode of action necessary for efficacy. It also suggests that by limiting the dose to a sub-hallucinogenic level, the efficacy may be maintained for many of the indications and the negative aspects of the drug eliminated.

Psilocybin and psilocin present significant challenges as pharmaceutical treatments. The pharmacokinetics of psilocybin are highly variable (particularly at low concentrations), bioavailability is low at approximately 50%, and higher dosing can lead to side effects including headache, nausea, elevated blood pressure, dizziness and hallucinogenic effects. As a result, most psilocybin development programs are restricted to in-clinic physician supervised administration. Psilocin on the other hand, is highly unstable as an active ingredient which severely restricts its use as an oral pharmaceutical ingredient. Lobe's research and development focused on discovering a new psilocin chemical entity with excellent stability and pharmacokinetics. The result is the company's patented and proprietary developmental compound L-130 – Conjugated Psilocin<sup>TM</sup>.

The Company plans to demonstrate that Conjugated Psilocin™ elicits positive and meaningful clinical outcomes at a sub-hallucinogenic dose. Multiple studies evaluating the effect of the pro-drug psilocybin as a treatment for chronic cluster headaches demonstrated effectiveness at lowering the frequency and intensity of cluster headaches. A 2006 study conducted at Harvard demonstrated that 85% of cluster headaches were aborted, 95% of treated patients experienced longer remission periods and 52% of patients experienced termination of their cluster headache cycle¹. A 2022 study conducted in Denmark examined the feasibility of dosing the pro-drug psilocybin as a prophylactic treatment in cluster headache patients found that the incidence of headaches was decreased 30%, with one patient experiencing complete remission for 21 weeks of the study².

The Company intends to sponsor and work with licensed third parties to conduct any clinical trials and research and does not handle or directly manufacture controlled substances. If the Company were to conduct this work without the reliance on third parties, it would need to obtain additional licenses and approvals described below.

## **Drug Development Program**

The following summarizes the drug development program for L-130:

# L-130

L-130 is a molecular modification of naturally occurring psilocin, which is the active component of psilocybin. On October 13, 2022, the Company, through an exclusive pharmaceutical discovery and development agreement with Quality Chemical Laboratories LLC ("QCL"), an FDA licensed manufacturer, completed the synthesis of bulk L-130 and of the clinical supplies to be used in upcoming trials. The L-130 was manufactured in compliance with U.S. Current Good Manufacturing Practices ("cGMPs").

The exclusive pharmaceutical discovery and development agreement with QCL provides the Company with an exclusive source of L-130. Affirming our access to cGMP pharmaceutical grade active pharmaceutical ingredients will enable us to efficiently conduct clinical trials and plan for further work using these differentiated compounds to investigate the safety and tolerability of the drug candidate, L-130 and measure absolute pharmacokinetics of this NCE. As the Company continues to progress through the L-130 program, additional milestones related to the Phase 1b/2a clinical trials have been identified.

On June 27, 2023, the Company announced that it has successfully completed dosing of all test subjects in our first-in-man study of L-130. This Phase 1a study, conducted in Amman, Jordan under the authority of the Jordan Food and Drug Administration in compliance with the GCP and GLP regulatory requirements of the Declaration of Helsinki and the FDA Guidelines for Bioavailability & Bioequivalence Studies, was an open label clinical trial in 10 normal and healthy individuals designed to determine the safety and pharmacokinetic parameters of L-130 after a single oral dose. All subjects were evaluated for impacts on cognition and anxiolytic effects on day 1, 7 and 28. All subjects were dosed according to the protocol with no significant adverse events. No hallucinogenic effects were seen in any of the 10 subjects at the 4mg dose level, possibly indicating that Conjugated Psilocin™ may be dosed at a therapeutic dose that is non-hallucinogenic. This study showed that L-130 is a highly bioavailable and safe drug candidate with a mean C<sub>max</sub> of 3.7 ng/ml, T<sub>max</sub> of 45 minutes, and bioavailability of 107%. The study confirmed the improved pharmacokinetics of L-130 delivered as a shelf-stable capsule over psilocybin based on published literature. Additionally, the time to achieve T<sub>max</sub> was lower for L-130 than psilocybin due to elimination of first-pass metabolism and immediate absorption in the gut. Full results were published in the peer reviewed Journal of Clinical Pharmacology and Therapeutics in October 2024. The results of this study and additional Phase 1 studies will be used to determine the dose range of L-130 for a planned Phase 2 trial targeting the treatment of chronic cluster headache.

<sup>&</sup>lt;sup>1</sup> Source: https://n.neurology.org/content/66/12/1920. Obtained July 19, 2023.

<sup>&</sup>lt;sup>2</sup> Source: https://www.medrxiv.org/content/10.1101/2022.07.10.22277414v1. Obtained July 19, 2023.

The Company also received data from two pre-clinical rodent studies. The first study was a 28-Day Repeat Dose Toxicology Study which reported no drug related adverse effects. The administered dose was 50x the anticipated dose in man. Repeated administration of L-130 to Swiss Albino mice for 28 consecutive days had no drug related effects on the general health of the animals, mean body weight, body weight changes, feed consumption, clinical pathology parameters, gross pathology and histopathology in both sexes. No L-130 related side effects were observed during the 14-day recovery period after cessation of the treatment.

The second pre-clinical study was designed to determine L-130's anxiolytic effect. Five groups of twelve Wistar Rats were evaluated over a 28-day treatment period using four distinct and validated tests. The results demonstrated that daily treatment of rats with psilocin was safe with no observed toxicity or significant impact on biochemical parameters. In this pre-clinical study, daily treatment of rats with L-130 at a human equivalent dose of 4 mg resulted in anxiolytic effect whereas weekly treatment did not.

The Company has filed and received pre-IND feedback from the FDA for Conjugated Psilocin™. The company is now finalizing the additional pre-clinical animal studies that will allow for the filing of an Investigational New Drug Application ("IND") application in FY2025 assuming positive results in the clinical studies. We plan to file the IND when we have completed additional clinical and pre-clinical studies. Following FDA's input and clearance of our IND, clinical trials may be initiated in the United States³.

The Company intends to complete future clinical trials for its Chronic Cluster Headache program in Australia, North America, India, Jordan and/or Europe. There is no assurance that the timelines will be met. Anticipated timelines regarding drug development are based on reasonable assumptions informed by current knowledge and information available to the Company. Such statements are informed by, among other things, regulatory guidelines for developing a drug with Ph 1 safety studies, Ph 2 proof of concept studies, and Ph 3 pivotal studies to generate data in support of an NDA submission. Our plans are prepared to provide the best opportunities for the successful implementation and generation of results of such studies on timelines, indicated regulatory guidelines, other industry examples, and the Company's development efforts to date.

The Company has focused its initial clinical development on chronic cluster headache. The Company believes chronic cluster headache provides the fastest and most efficient path to an indication in a condition with significant unmet medical need, strong proof of concept data from prior studies, the potential for and benefits of a US orphan drug designation, and enhanced reimbursement and commercial potential. The Company also believes Conjugated Psilocin™ possess significant potential advantages as a new and novel treatment in a number of significantly larger and common CNS disorders where patients are not receiving adequate relief from current therapy options. These conditions include generalized anxiety disorder (approximately 7 million adults), major depressive disorder (approximately 17 million), post-traumatic stress disorder (approximately 8 million), and addiction (20 million diagnosed and 4 million receiving treatment). The Company has initiated a strategic process to be completed in the first half of calendar 2025 to examine and prioritize the timing and sequence of follow-on indications.

## Intellectual Property

The Company has title to patent applications as summarized below. In 2024 the Company received a United States Patent #12102616 for the Preparation of Stable Psilocin Salts and Uses Thereof. This patent covers the composition of matter, methods of use and methods of production for Conjugated Psilocin™ and will extend to July of 2043. The company also received a notice of allowance for application 18/818,317 Stable Psilocin Salts, Esters and Conjugates and Uses Thereof.

	Patent Application / Patent Number	Date of Patent Application / NOC / Issued	Expiry	Jurisdiction	Status	Description
1	2021358135	April 20, 2021	April 20, 2041	Australia	Pending	Methods for Treating Mild Traumatic Brain Injury, Post Traumatic Stress Disorder, and Mild Traumatic Brain Injury
2	3,176,225	April 20, 2021	April 20, 2041	Canada	Pending	Methods for Treating Mild Traumatic Brain Injury, Post Traumatic Stress Disorder, and Mild Traumatic Brain Injury
3	21792649.2	April 20, 2021	April 20, 2041	Europe	Pending	Methods for Treating Mild Traumatic Brain Injury, Post Traumatic Stress Disorder, and Mild Traumatic Brain Injury
4	17/916,855	April 20, 2021	April 20, 2041	United States	Pending	Methods for Treating Mild Traumatic Brain Injury, Post Traumatic Stress Disorder, and Mild Traumatic Brain Injury
5	PCT/US2023/027500	July 12, 2022	July 12, 2023	PCT	Pending	Preparation of Stable Psilocin Salts and Uses Thereof
6	12102616	October 1, 2024	July 12, 2043	United States	Granted	CIP of Preparation of Stable Psilocin Salts and Uses Thereof
7	PCT/US2023/027475	July 19, 2022	July 19, 2023	PCT	Pending	Selective Mutism Orphan Disease
8	PCT/US2023/027500	August 28, 2024 / November 8, 2024	TBD	United States	Notice of Allowance	Stable Psilocin Salts, Esters and Conjgates and Uses thereof
9	63/573,567	April 3, 2024	TBD	United States	Pending	Psilocin Mucate Salts (Crystal Structure)
10	18/888,371	September, 18, 2024	TBD	United States	Pending	Solid Psilocin Salts (Crystal Structure)

## Establishment of Alera Pharma, Inc. as an operating subsidiary to lead development of Conjugated Psilocin

On August 15<sup>th</sup>, 2024, the Company announced that it has created a wholly owned US operating subsidiary named Alera Pharma, Inc (Alera). The company intends to assign to Alera the intellectual property rights of its neurological assets and the new chemical entity Conjugated Psilocin™. By establishing Alera Pharma, the Company is simplifying its operations into three entities: Lobe Sciences Ltd. and two operating subsidiaries, Alera and Altemia. The creation of two separate operating companies will allow each entity to create focus and value within their respective therapeutic areas, neurology and hematology.

## Regulatory Framework and Licensing Regimen

The Company intends to sponsor and work with licensed third parties to conduct any clinical trials and research. The Company does not handle controlled substances. The Company has no real estate and does not operate any laboratories. If the Company were to conduct this work without the reliance on third parties, it would obtain additional licenses and approvals described below.

### Canada

In Canada, oversight of healthcare is divided between the federal and provincial governments. The federal government is responsible for regulating, among other things, the approval, import, sale, and marketing of drugs such as psilocybin and other

psychedelic substances, whether natural or novel. The provincial/territorial level of government has authority over the delivery of health care services, including regulating health facilities, administering health insurance plans such as the Ontario Health Insurance Plan, distributing prescription drugs within the province, and regulating health professionals such as doctors, psychologists, psychotherapists and nurse practitioners. Regulation is generally overseen by various colleges formed for that purpose, such as the College of Physicians and Surgeons of Ontario. Certain psychoactive compounds, such as psilocybin, are considered controlled substances under Schedule III of the Controlled Drugs and Substances Act (Canada) (the "CDSA"). In order to conduct any scientific research, including preclinical and clinical trials, using psychoactive compounds listed as controlled substances under the CDSA, an exemption under Section 56 of the CDSA ("Section 56 Exemption") is required. This exemption allows the holder to possess and use the controlled substance without being subject to the restrictions set out in the CDSA. The Company has not applied for a Section 56 Exemption from Health Canada. The possession, sale or distribution of controlled substances is prohibited unless specifically permitted by the government. A party may seek government approval for a Section 56 Exemption to allow for the possession, transport or production of a controlled substance for medical or scientific purposes. Products that contain a controlled substance such as psilocybin cannot be made, transported or sold without proper authorization from the government. A party can apply for a Dealer's License under the Food and Drug Regulations (Part J). In order to qualify as a licensed dealer, a party must meet all regulatory requirements mandated by the regulations including having compliant facilities, compliant materials and staff that meet the qualifications under the regulations of a senior person in charge and a qualified person in charge. Assuming compliance with all relevant laws (Controlled Drugs and Substances Act, Food and Drugs Regulations) and subject to any restrictions placed on the license by Health Canada, an entity with a Dealer's License may produce, assemble, sell, provide, transport, send, deliver, import or export a restricted drug (as listed in Part J in the Food and Drugs Regulations - which includes psilocybin and psilocin) (see s. J.01.009 (1) of the Food and Drug Regulations).

## **United States**

The FDA and other federal, state, local and foreign regulatory agencies impose substantial requirements upon the clinical development, clinical testing, approval, labeling, manufacture, marketing and distribution of drug products. These agencies regulate, among other things, research and development activities and the testing, approval, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, advertising and promotion of any prescription drug product candidates or commercial products. The regulatory approval process is generally lengthy and expensive, with no guarantee of a positive result. Moreover, failure to comply with the applicable FDA requirements or other requirements may result in civil or criminal penalties, recall or seizure of products, injunctive relief including partial or total suspension of production, or withdrawal of a product from the market. The Company intends to file an IND application related to L-130 for one or more clinical indications<sup>3</sup>. Anticipated timelines related to regulatory filings are based on reasonable assumptions informed by current knowledge and information available to the Company. Psilocybin and psilocin are strictly controlled under the federal Controlled Substances Act, 21 U.S.C. §801, et. seq. ("CSA") as Schedule I substances. Schedule I substances have no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse. Schedule I and II drugs are subject to the strictest controls under the CSA, including manufacturing and procurement quotas, security requirements and criteria for importation. Anyone wishing to conduct research on substances listed in Schedule I under the CSA must register with the United States Drug Enforcement Administration ("DEA") and obtain DEA approval of the research proposal. A majority of state laws in the United States classify psilocybin and psilocin as Schedule I controlled substances. For any product containing psilocybin or any Schedule I substance to be available for commercial marketing in the United States, such substance must be rescheduled, or the product itself must be scheduled, by the DEA to Schedule II, III, IV or V. Scheduling determinations by the DEA are dependent on FDA approval of a substance or a specific formulation of a substance.

### **Altemia**

Sickle Cell Disorder (SCD) is a group of hereditary red blood cell disorders. Healthy red blood cells are round and move through small blood vessels to carry oxygen to all parts of the body. In someone who has SCD, the red blood cells ("RBC") become inflamed under certain stress conditions resulting in among other symptoms, an increase of C-Reactive Protein (a biomarker for SCD). Inflammation causes the RBC's membrane to become hard and sticky and collapsing into a "sickle" shaped RBC. These sickled RBCs, slowing or even blocking blood flow in the blood vessels (capillaries) of the limbs and organs. This slowing of the blood cells causes a cascade of events that result in pain and vaso-occlusive event. The sickled RBCs die earlier than normal RBCs. The bone marrow in sickle cell patients cannot make enough new RBCs to replenish the dying ones. This constant shortage of red blood cells leads to a serious disease of anemia. Not only does the blocked blood flow cause potentially severe pain, but it can also lead to other serious medical problems such as infection, acute chest syndrome and stroke. Populations that suffer from SCD have life expectancy that on average is 20 years less than the general population.

According to the CDC, it is estimated that SCD affects approximately 100,000 individuals in the United States; more that 90% of affected people are non-Hispanic Black or African Americans (1 out of every 365 births) and 3% - 9% of Hispanic or Latinos (1 out of every 16,300 births. The prevalence is lower in Europe overall. Sickle cell disease (SCD) affects millions of people throughout the world and is particularly common among those whose ancestors came from parts of the world where malaria is or was common including Sub-Saharan Africa, Spanish-speaking regions in the Western Hemisphere (South America, the Caribbean, and Central America), Saudi Arabia, India, and Mediterranean countries such as Turkey, Greece, and<sup>4</sup>.

Altemia<sup>™</sup> is the brand name of a patent pending oral emulsion consisting of a proprietary mixture of polyunsaturated fatty acid triglyceride esters clinically evaluated to resolve nutritional deficiencies associated in adults or children with SCD. The term medical food, as defined in section 5(b) of the Orphan Drug Act (21 U.S.C. 360ee (b) (3)) is "a food which is formulated to be consumed under the supervision of a physician and which is intended for the specific dietary management of a disease or condition for which distinctive nutritional requirements, based on recognized scientific principles, are established by medical evaluation." SCD is among a few inborn errors of metabolism specifically named in legislation that qualifies as treatable with medical foods.

<sup>&</sup>lt;sup>3</sup> This statement is based on the following material assumption: drug development involves long lead times, is very expensive and involves many variables of uncertainty. Anticipated timelines regarding drug development are based on reasonable assumptions informed by current knowledge and information available to the Company. As of the date hereof, it has not yet completed the aforementioned items. Such statements are informed by, among other things, regulatory guidelines for developing a drug with safety studies, proof of concept studies, and pivotal studies for new drug application submission and approval and assumes the success of implementation and results of such studies on timelines indicated as possible by such guidelines, other industry examples, and the Company's development efforts to date. See the "Risk and uncertainties" section.

<sup>&</sup>lt;sup>4</sup> Source: https://www.cdc.gov/sickle-cell/data/?CDC\_AAref\_Val=https://www.cdc.gov/ncbddd/sicklecell/data.html. Obtained December 17, 2024

On April 17, 2023, the Company completed the acquisition of 100% of the ownership interest in Altemia. Pursuant to a share exchange agreement, the registered and beneficial owners of all the issued and outstanding securities of Altemia ("Selling Members") received an aggregate of 76,000,000 common shares of the Company (the "Consideration Shares"). On August 30, 2023, the Company signed an amendment to its April 17, 2023, share purchase agreement to acquire a 100% interest in Altemia ("Amendment").

On March 4, 2024, the Company and Altemia Selling Members agreed on the achievement of all four milestones outlined in the Amendment. As a result of the milestones being achieved, and upon the request of one of the Altemia Selling Members, the Company issued 69,160,000 common shares. On April 30, 2024, the remaining 6,840,000 common shares were issued upon the request of the Altemia Selling Members.

On May 5, 2024, the Company's exclusive distribution agreement with Pentec Health Inc. ("Pentec") was automatically extended for one year a period ending May 5, 2025. The company continues to work closely with Pentec to establish reimbursement and commercialize Altemia in key markets in the US. In addition, the company is working to establish a distribution and license agreement for key ex-US markets. Finally, the Company is exploring a clinical study in the US with a leading SCD physician network that will further establish the significant clinical benefit of Altemia as a medical food in SCD patients.

# Intellectual Property

The Company, through Altemia, holds a licensing agreement which grants a worldwide, nontransferable, non-sublicensable, exclusive right to make, have made, use, offer to sell, sell, and import licensed products utilizing the Patent Cooperation Treaty ("PCT") application as summarized below.

	Patent Application Number	Date of Application	Expiry	Jurisdiction	Status	Description
1	PCT/US2021/021879	March 11, 2021	March 11, 2041	Europe, USA, Saudi Arabi, and the United Arab Emirates	Pending	A composition comprising docosahexaenoic acid and egg yolk suitable for SCD treatment

# **SELECTED ANNUAL INFORMATION**

	August 31, 2024	August 31, 2023	August 31, 2022
	\$	\$	\$
Sales	136,205	840,534	-
Cost of sales	(1,759)	(24,012)	-
Gross profit	134,446	816,522	-
Operating expenses	(2,250,560)	(4,175,908)	(4,123,210)
Net loss	(4,420,727)	(4,707,349)	(12,252,852)
Number of common shares outstanding	171,560,392	79,136,172	38,487,648
Loss per share	(0.04)	(0.05)	(0.32)
Cash	237,772	140,290	907,537
Working capital	(2,008,849)	(2,140,263)	(266,084)
Total assets	258,570	2,299,491	1,747,695
Total long-term liabilities	1,105,539	-	-
Shareholders' equity (deficit)	(3,114,388)	(160,127)	445,690
Dividends paid per share	-	-	<u>-</u>

# **SUMMARY OF QUARTERLY RESULTS**

	Q4 2024	Q3 2024	Q2 2024	Q1 2024
Net loss	(2,830,424)	(426,802)	(595,474)	(568,027)
Comprehensive loss	(2,809,117)	(427,297)	(611,774)	(566,682)
Basic and diluted net loss per share	(0.02)	(0.00)	(0.01)	(0.01)
Number of weighted average shares	171,560,392	158,774,485	79,136,172	79,136,172
	Q4 2023	Q3 2023	Q2 2023	Q1 2023
Net loss	(1,375,840)	(312,101)	(1,001,973)	(2,017,435)
Comprehensive loss	(1,378,439)	(310,651)	(1,001,777)	(2,017,435)
Basic and diluted net loss per share	(0.01)	(0.00)	(0.01)	(0.03)
Number of weighted average shares	134,234,357	114,291,584	76,837,215	70,575,069

The Company's net loss increased from Q1 2024 to Q4 2024 compared to Q4 2023 mainly due to the impairment of the Company's intangible assets.

# FINANCIAL PERFORMANCE

A summary of the Company's results of operations is as follows:

	Q4 2024	Q4 2023	YTD 2024	YTD 2023
	\$	\$	\$	\$
Revenue	<del>*</del>	840,534	136,205	840,534
Cost of sales	(2)	(24,012)	(1,759)	(24,012)
Gross profit	(2.00)	816,522	134,446	816,522
Advertising	2,908	34,950	10,258	289,031
Amortization	-	24,590	84,709	43,696
Consulting fees	113,812	(627,664)	904,839	1,280,460
General and administrative	25,215	43,487	143,535	173,762
Insurance	10,512	93,329	134,361	368,135
Professional fees	126,992	194,154	314,746	471,516
Research	1,024	992,419	386,236	1,247,540
Share-based compensation	109,112	128,758	271,876	301,768
Operating loss	(389,577)	(884,023)	(2,116,114)	(3,359,386)
Other income (expenses)	(2,407,847)	1,103,339	(2,271,613)	(1,142,963)
Income tax	(33,000)	(205,000)	(33,000)	(205,000)
Net loss	(2,830,424)	(2,192,362)	(4,420,727)	(4,707,349)

## Q4 2024 compared to Q4 2023:

Net loss increased to \$2,830,424 compared to \$2,192,362 in the prior year comparable period. The primary driver of the increase was due to the impairment taken on the Company's intangible assets of \$2,593,677 (2023 - \$Nil).

Partially offsetting the increase in net loss was decreases to expenses and increases to other income as follows:

- Consulting fees decreased to \$113,812 from \$401,424 in the prior year comparable due to the change in management during the quarter.
- Research decreased from \$992,419 to \$1,024 in the current period due to expenses incurred in the prior year comparative
  in connection with the preparation for preclinical studies for L-130 and 4L-131, which includes a consulting fee with the
  Company's manufacturing partner QCL. The Company and its exclusive partners have initiated formal import and export
  permitting activities within the United States and countries abroad.

## YTD 2024 compared to YTD 2023:

Net loss decreased to \$4,420,727 compared to \$4,707,349 in the prior year. The primary drivers of this decrease were as follows:

- Advertising expenses decreased to \$10,258 compared to \$289,031 due to two advertising campaigns to build awareness
  of the Company's initiatives in the prior year that was not repeated in the current period.
- Consulting fees decreased to \$904,839 compared to \$1,280,460 in the prior year due to cost reduction measures enacted by management.
- Research expenses decreased to \$386,236 compared to \$1,247,540 in the prior year due to cost reductions resulting from limited capital.

Partially offsetting the decrease in net loss were the following items:

- Revenue decreased to \$136,205 compared to \$840,534 in the prior year.
- Amortization increased to \$84,709 compared to \$43,696 in the prior year due to the addition of a patent, included in
  intangible assets, acquired with the Altemia acquisition on April 17, 2023 as well as the issuance of new convertible notes
  in the current year.
- Impairment of intangible assets increased to \$2,593,677 compared to \$Nil in the prior year as the Company's intangible assets were found to be impaired in accordance with IFRS.

## LIQUIDITY, CAPITAL RESOURCES AND GOING CONCERN

## Liquidity

Liquidity risk is the risk that the Company will encounter difficulties in meeting its obligations associated with its financial liabilities and other contractual obligations. The Company's strategy for managing liquidity is based on accessing capital markets through equity financing and achieving positive cash flows from operations to internally fund operating and capital requirements.

Factors that may affect the Company's liquidity are continuously monitored. These factors include patent application costs, research and development costs to develop the Company's patents, operating costs, capital costs, income tax refunds, foreign currency fluctuations, market immaturity and a highly fluid environment related to state and federal law passage and regulations. The Company's main use for liquidity is to fund the development of its research programs as noted above. The primary source of liquidity has been from public financing to date. The ability to fund operations, to make planned capital expenditures and execute the growth/acquisition strategy depends on the future operating performance and cash flows, which are subject to prevailing economic conditions, regulatory and financial, business and other factors, some of which are beyond the Company's control.

In the event that the Company is adversely affected by any of these factors and, as a result, the operating cash flows are not sufficient to meet the Company's working capital requirements there is no guarantee that the Company would be able to raise additional capital on acceptable terms to fund a potential cash shortfall. Consequently, the Company is subject to liquidity risk.

A summary of the Company's working capital deficiency is as follows:

	August 31,	August 31,
	2024	2023
	\$	\$
Cash	237,772	140,290
Receivables	9,343	14,915
Inventory	-	16,979
Prepaid expenses and deposits	11,455	147,171
Total current assets	258,570	319,355
Accounts payable and accrued liabilities	784,321	1,921,978
Income tax payable	238,000	205,000
Convertible notes - current portion	641,374	332,640
Derivative liability	603,724	-
Total current liabilities	2,267,419	2,459,618
Working capital deficiency	(2,008,849)	(2,140,263)

As at August 31, 2024, the Company had a working capital deficiency of \$2,008,849 (August 31, 2023 - \$2,140,263) and an accumulated deficit of \$40,103,102 (August 31, 2023 - \$35,682,375). During the years ended August 31, 2024, the Company incurred a net loss of \$4,420,727 (2023 - \$4,707,349). These factors form a material uncertainty that may raise significant doubt regarding the Company's ability to continue as a going concern. The Company's ability to continue as a going concern is dependent upon the Company's ability to raise sufficient financing to acquire or develop a profitable business. The Company intends on financing its future development activities and operations from the sale of equity securities and through debt financing through convertible notes. Management will continue to monitor and assess its capital resources to meet operating requirements

### Cash flows, sources and uses of cash

over the next twelve months.

A summary of the Company's cash flows is as follows:

	YTD 2024	YTD 2023
	\$	\$
Cash used in operating activities	(462,293)	(1,718,644)
Cash provided by financing activities	563,507	950,013
Effect of exchange rate on changes in cash	(3,732)	1,384
Cash, beginning of year	140,290	907,537
Cash, end of year	237,772	140,290

Cash used in operating activities is primarily driven by drug development and corporate costs. Cash used in operating activities decreased during the year ended August 31, 2024 due to cost reduction measures enacted by management as the Company pursues new financing.

Cash provided by financing activities decreased to \$563,507 compared to \$950,013 in the prior year due to funds raised through a private placement, the exercise of share purchase options and convertible notes issued, which were partially offset by share issue costs in the prior year. This funding was used for drug development costs and working capital.

## Capital resources

The Company manages its capital to maintain its ability to continue as a going concern and to provide returns to shareholders and benefits to other stakeholders. The Company's capital structure consists of all components of shareholders' equity. The Company's objective when managing capital is to maintain adequate levels of funding to support the current operations including corporate and administrative functions to support operations. The Company obtains funding primarily through issuing common share. Future financing is dependent on market conditions and there can be no assurance the Company will be able to raise funds in the future.

There were no changes to the Company's approach to capital management during the period. The Company is not subject to externally imposed capital requirements.

# PROPOSED TRANSACTIONS

There are no undisclosed proposed transactions under consideration as at August 31, 2024 and the MD&A Date.

#### **OFF-BALANCE SHEET ARRANGEMENTS**

The Company does not have any off-balance sheet arrangements as at August 31, 2024 and the MD&A Date.

## **RELATED PARTY DISCLOSURES**

Key management personnel include those who have the authority and responsibility of planning, directing and executing the activities of the Company. Key management includes directors of the Company, Chief Executive Officer, Executive Chairman, Chief Financial Officer, Chief Science Officer, Chief Operating Officer, Regulatory advisor and former Executive Chairman. Other than the amounts disclosed above, there was no other compensation paid or payable to key management for employee services for the reported periods.

A summary of the Company's related party transactions is as follows:

	2024	Year ended August 31, 2023
	\$	\$
Consulting fees	778,918	1,028,149
Directors' fees included in consulting fees	121,500	162,000
Professional fees	79,800	121,155
Share-based compensation	149,057	160,715
	1,129,275	1,472,019

Professional fees included in the table above were charged by a company related to the Chief Financial Officer.

A summary of the Company's consulting fees, excluding directors' fees included in consulting fees, paid to related parties is as follows:

		For the year ended
		August 31,
	2024	2023
	\$	\$
Former Executive Chairman	-	30,173
Former Chief Executive Officer and Executive Chairman	218,049	235,658
Chief Science Officer	149,002	147,942
Former Chief Operating Officer	155,134	55,343
Regulatory advisor	256,733	559,033
	778,918	1,028,149

A summary of amounts due to related parties contained within accounts payable and accrued liabilities is as follows:

	August 31, 2024	August 31, 2023
	\$	\$
Former Chief Executive Officer for consulting fees	60,532	16,955
Former Chief Operating Officer for consulting fees	13,652	-
Chief Science Officer for consulting fees	2,068	108,361
Company related to the Chief Financial Officer for professional fees	14,700	17,758
Company related to the Regulatory Advisor for consulting fees	229,285	-
Director	15,000	334,876
	335,237	477,950

On October 3, 2022, the Company entered into a mutual separation agreement with the former Executive Chairman of the Board of Directors of the Company. As part of the agreement, the Company agreed to issue an aggregate of 5,300,836 common shares of the Company for total consideration of \$556,588, which was recorded as agreement termination expense.

On April 22, 2024, the Company issued 8,100,000 RSUs to members of the Board of Directors in settlement of \$162,000 in Board of Directors fees outstanding.

On May 15, 2024, the Company issued convertible notes to the Chief Executive Officer, Chief Science Officer and Chief Operating Officer to settle a total outstanding accounts payable of \$569,390 (US\$417,533).

## FINANCIAL RISK MANAGEMENT

The Company classifies and subsequently measures its cash, deposits (included in prepaid expenses and deposits), accounts payable and accrued liabilities and convertible notes at amortized cost.

The carrying amounts of cash, deposits (included in prepaid expenses and deposits), accounts payable and accrued liabilities and convertible notes approximate their respective fair values due to the short-term nature of these instruments. The Company examines its various financial risks to which it is exposed and assesses the impact and likelihood of occurrence. The risks may include credit risk, currency risk, liquidity risk and interest rate risk. The Company's risk management program strives to evaluate the unpredictability of financial markets and its objective is to minimize the potential adverse effects of such risks on the Company's financial performance, where financially feasible to do so.

When deemed material, these risks may be monitored by the Company's finance group, and they are regularly discussed with the Board of Directors.

#### Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to fulfill its contractual obligations. The Company's credit risk is predominantly related to cash balances held in financial institutions, receivables. The Company minimizes its credit risk related to cash and cash equivalents by placing cash with major financial institutions. The Company has no investments and does not expect any credit losses. The Company periodically assesses the credit quality of its financial institutions and is satisfied with the credit ratings of its banks. The Company has deposits with vendors, included in prepaid expenses and deposits, made with vendors towards the completion of research and development activities and does not expect any credit losses.

# Foreign exchange risk

Foreign exchange risk arises on financial instruments that are denominated in a currency other than the functional currency in which they are measured. The Company is exposed to foreign exchange risk from fluctuations in United States dollars and Australian dollars. The Company does not use derivative instruments to reduce its exposure to foreign exchange risk.

A summary of the Company's financial assets and liabilities that are denominated in United States dollars, Euros and Australian dollars as at August 31, 2024, is as follows:

	USD	EUR	AUD
	\$	\$	\$
Financial assets			
Cash	970	-	756
Financial liabilities			
Accounts payable and accrued liabilities	309,742	1,898	19,650
Convertible notes	954,987	-	-
	1,382,687	1,898	19,650
Net financial liabilities	(1,381,717)	(1,898)	(18,894)

A 10% increase or decrease in the United States dollar, the Australian dollar, and the Euro against the Canadian dollar, would result in an impact on profit or loss of \$140,251.

# Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations when they become due. The Company is exposed to liquidity risk through its accounts payable and accrued liabilities and convertible notes. To mitigate this risk, the Company has a planning and budgeting process in place to determine the funds required to support its ongoing operations and capital expenditures.

As at August 31, 2024, the Company had a cash balance of \$237,772 and current liabilities of \$2,267,419 (August 31, 2023 - \$140,290 and \$2,459,618, respectively). The Company's current cash resources are insufficient to settle its current liabilities, however, the Company intends to raise funds through equity and debt financings.

#### Interest rate risk

Interest rate risk is the risk that future cash flows will fluctuate as a result of changes in market interest rates. The Company is not exposed to interest rate risk since its financial instruments are not subject to variable interest rates.

### SUBSEQUENT EVENT

On November 13, 2024, the Company issued 10,828,400 common shares to an officer, a former director, and a consulting company owned by the Executive Chairman, to settle accounts payable of \$212,568.

On December 12, 2024, the Company issued a convertible note to a private investor for gross proceeds of US\$250,000. The convertible note bears interest at 10% per annum and matures on December 12, 2027. The note is convertible into common shares upon a change of control or upon completion of a transaction as defined in the convertible note agreement.

On December 13, 2024, the Company issued 850,000 common shares to an officer and a former director to settle accounts payable of \$17,000.

## **OUTSTANDING SHARE DATA**

A summary of the Company's issued and outstanding securities is as follows:

	August 31, 2024	MD&A Date
	#	#
Common shares	171,560,392	183,238,792
Share purchase options	8,003,143	8,003,143
Performance warrants	776,000	776,000
Share purchase warrants	42,890,470	42,890,470
Restricted share units	11,031,250	11,031,250
Deferred share units	623,339	623,339
	234,884,594	246,562,994

## SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGEMENTS

The preparation of financial statements under IFRS Accounting Standards requires management to make judgments, estimates, and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The Company's management reviews these estimates and underlying assumptions on an ongoing basis, based on experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions to estimates are adjusted for prospectively in the period in which the estimates are revised.

The accounting estimates, judgements and assumptions used in the preparation of the Financial Statements are consistent with those applied and disclosed in the notes to the Annual Financial Statements.

# **RISKS AND UNCERTAINTIES**

For a detailed listing of the risks and uncertainties faced by the Company, please refer to the Company's MD&A for the years ended August 31, 2024 and 2023 filed on SEDAR+ at <a href="https://www.sedarplus.ca">https://www.sedarplus.ca</a>.

## OTHER INFORMATION

Additional information about the Company is available on the Company's website at <a href="https://www.lobesciences.com/">https://www.lobesciences.com/</a> and at SEDAR+ at <a href="https://www.sedarplus.ca">https://www.sedarplus.ca</a>.