

REFINITIV

# DELTA REPORT

## 10-K

LEXX - LEXARIA BIOSCIENCE CORP.

10-K - AUGUST 31, 2023 COMPARED TO 10-K - AUGUST 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	2122
--------------	------

CHANGES	180
---------	-----

DELETIONS	991
-----------	-----

ADDITIONS	951
-----------	-----

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark One)

☐ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended August 31, 2022 2023

or

☐ TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from [ ] to [ ]

Commission file number 000-52138

LEXARIA BIOSCIENCE CORP. Lexaria  
Bioscience Corp.

(Exact name of registrant as specified in its charter)

Nevada

State or other jurisdiction of  
incorporation or organization

20-2000871

(I.R.S. Employer  
Identification No.)

#100 – 740 McCurdy Road, Kelowna BC Canada

(Address of principal executive offices)

V1X 2P7

(Zip Code)

Registrant's Telephone number, including area code: 250-765-6424

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class

N/A

Name of Each Exchange On Which Registered

N/A

Securities registered pursuant to Section 12(g) of the Act:

Title of Class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, Par Value \$0.001	LEXX	Nasdaq
Warrants	LEXXW	Nasdaq

Indicate by check mark if the registered is a well-known seasonal issuer, as defined in Rule 405 the Securities Act Yes ☐ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act Yes ☐ No ☐

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the last 90 days. Yes ☐ No ☐

Indicate by check mark whether the registrant has submitted electronically, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-K (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☐ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by a check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant period pursuant to §240.10D-1(b) ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☐

As of February 28, 2022 February 28, 2023, the last day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately \$21 million \$16.2 million, based on the average of the closing price of the registrant's shares of common stock on February 28, 2022 February 28, 2023.

Indicate the number of shares outstanding of each of the registrant's classes of common stock as of the latest practicable date.

5,950,998 10,276,641 common shares as of November 25, 2022 November 20, 2023.

#### DOCUMENTS INCORPORATED BY REFERENCE

None.

#### TABLE OF CONTENTS

Item 1. Business

4

<a href="#">Item 1A.</a>	<a href="#">Risk Factors</a>	16 13
<a href="#">Item 1B.</a>	<a href="#">Unresolved Staff Comments</a>	23 19
<a href="#">Item 2.</a>	<a href="#">Properties</a>	23 20
<a href="#">Item 3.</a>	<a href="#">Legal Proceedings</a>	23 20
<a href="#">Item 4.</a>	<a href="#">Mine Safety Disclosures</a>	23 20
<a href="#">Item 5.</a>	<a href="#">Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</a>	24 21
<a href="#">Item 6.</a>	<a href="#">Selected Financial Data</a>	25 23
<a href="#">Item 7.</a>	<a href="#">Management's Discussion and Analysis of Financial Condition and Results of Operations</a>	25 23
<a href="#">Item 7A.</a>	<a href="#">Quantitative and Qualitative Disclosures About Market Risk</a>	30 27
<a href="#">Item 8.</a>	<a href="#">Financial Statements and Supplementary Data</a>	30 28
<a href="#">Item 9.</a>	<a href="#">Changes in and Disagreements With Accountants on Accounting and Financial Disclosure</a>	50 47
<a href="#">Item 9A.</a>	<a href="#">Controls and Procedures</a>	50 47
<a href="#">Item 9B.</a>	<a href="#">Other Information</a>	50 47
<a href="#">Item 10.</a>	<a href="#">Directors, Executive Officers and Corporate Governance</a>	51 48
<a href="#">Item 11.</a>	<a href="#">Executive Compensation</a>	54 52
<a href="#">Item 12.</a>	<a href="#">Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</a>	58 55
<a href="#">Item 13.</a>	<a href="#">Certain Relationships and Related Transactions, and Director Independence</a>	59 56
<a href="#">Item 14.</a>	<a href="#">Principal Accounting Fees and Services</a>	59 56
<a href="#">Item 15.</a>	<a href="#">Exhibits, Financial Statement Schedules</a>	60 57

[Table of Contents](#)

**Cautionary Note Regarding Forward-Looking Statements**

***This Annual Report on Form 10-K ("this report") contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any statements contained herein that are not statements of historical fact may be forward-looking statements relating to future events or our future financial performance and are based on our present beliefs, assumptions, and information currently available to us. In some cases, forward-looking***

statements can be identified by terminology such as “may”, “will”, “should”, “could”, “targets”, “goal”, “expects”, “plans”, “anticipates”, “believes”, “estimates”, “predicts”, “potential” or “continue” and other comparable terminology or the negative of these terms.

These statements contain predictions and involve known and unknown risks, including the risks in the section entitled “Risk Factors” set forth in Item 1(A) in this report, uncertainties and other factors that may cause our or our industry’s levels of activity, performance, achievements, or actual results to be materially different from any future levels of activity, performance, achievements, or results expressed or implied by these forward-looking statements. Although we contend that the expectations reflected herein are reasonable, we cannot guarantee levels of activity, performance, achievements, or future result.

Forward-looking statements in this report include statements about, among other things: the status, progress and results of our research programs; our ability to obtain regulatory approvals for, and the level of market opportunity for, our product candidates; our business plans, strategies and objectives, including plans to pursue collaboration, licensing or other similar arrangements or transactions; our expectations regarding our liquidity and performance, including our expense levels, sources of capital and ability to maintain our operations as a going concern; the competitive landscape of our industry; and general market, economic and political conditions.

We caution placing undue reliance on any forward-looking statements as they speak only as of the date on which such statements were made, and we do not assume any obligation to update any forward-looking statement or to reflect the occurrence of an unanticipated event. New factors may emerge, and it is not possible to predict all factors that may affect our business and prospects. Further, management cannot assess the impact of each factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Solely for convenience, tradenames and trademarks referred to in this report appear without the “®” or “TM” symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these tradenames or trademarks, as applicable. All tradenames, trademarks, and service marks included or incorporated by reference in this report are the property of Lexaria Bioscience Corp.

As used in this report, the terms “Lexaria” “we”, “us”, “our” and “Company” mean Lexaria Bioscience Corp. and/or our subsidiaries, unless otherwise indicated.

## PART 1

### **Item 1. Business**

#### **Company Overview**

Lexaria Bioscience Corp. is a biotechnology company developing the enhancement of the bioavailability of a broad range of fat-soluble active molecules and active pharmaceutical ingredients (“APIs”) using our patented DehydraTECH™ drug delivery technology. DehydraTECH combines lipophilic molecules or APIs with specific long-chain fatty acids and carrier compounds that improve the way they enter the bloodstream, increasing their effectiveness and allowing for lower overall dosing while promoting healthier oral ingestion methods.

DehydraTECH can be used with a wide range of active molecules encompassing fat-soluble vitamins, pain medications, hormones, PDE5 inhibitors, antivirals, nicotine and its analogs, and all cannabinoids. Our technology can be applied to a variety of therapeutic indications, including hypertension and heart disease, dementia, SARS-CoV-2/COVID-19 and HIV/AIDS, diabetes. DehydraTECH can be implemented in a multitude of ingestible or topically administered product formats including foods, beverages, oral suspensions, tablets, capsules, creams, lotions, and skin patches. It is suitable for use with a variety of product formats including pharmaceuticals, nutraceuticals, over-the-counter products, and consumer packaged goods.

DehydraTECH is a technology incorporated into the formulation and manufacturing process of new or existing orally ingestible and topical products. The procedure involves fusing the active ingredient as a delivery “payload” together with certain fatty acids and infusing the mixture into a substrate material. Using controlled dehydration **synthesis, processing**, it combines the payload and fatty acids together at a molecular level. The newly combined molecules are then integrated into production of the end-product using any number of dosage formats. From foods and beverages to cosmetics and nutraceuticals, this technology extends across many product categories beyond the primary pharmaceutical focus of the Company. DehydraTECH formulations have been found **in some cases** to reduce the need for unwanted sweeteners or chemical masking agents used for **flavor flavor-** and **odor blocking odor-blocking**, allowing manufacturers to create low-sugar products with fewer calories and artificial sweeteners.

The Company has developed **a variety of demonstration products** since 2015 exhibiting the potential uses for DehydraTECH to both consumers and potential licensees. These products included hot chocolate, coffee, seven flavors of teas, two flavors of protein energy bars, powder filled capsules and mix-and-serve powders. All utilized DehydraTECH for a more palatable and efficient delivery of bioactive molecules. The Company gained extensive experience from the formulation and production of **these its demonstration products, in various formats**, that enables us to provide expert advice to our licensees with the integration of DehydraTECH in their **products, products for the purpose of providing a more palatable and efficient delivery of bioactive molecules.**

Lexaria **does not intend to create or produce consumer products, supports our licensee's products with our technology.** A part of our business plan is to encourage new and existing participants to license and utilize DehydraTECH to enable enhanced performance of their products. These products cross a wide range of lipophilic bioactive molecules including **CBD nicotine and cannabidiol (“CBD”)** with additional molecules of interest continually being evaluated.

## Intellectual Property

Lexaria's involvement with the foundational technology to DehydraTECH dates back to 2014 **when it entered into a strategic relationship with Poppy's Teas LLC, and the original inventors of DehydraTECH, who had filed two initial US provisional patent application filings made applications for the technology.** The strategic relationship evolved into the acquisition by **the original inventors Lexaria of Poviva Tea, LLC (formerly Poppy's Teas LLC, LLC) which entity was then converted from a limited liability company to a corporation under the name Poviva Corp. (“Poviva”).** Poviva is now the wholly-owned subsidiary of Lexaria **acquired by way and the named owner of exclusive, worldwide license rights to DehydraTECH via the acquisition all of the controlling interest patents filed in the founding company.** In 2015, Lexaria signed a license agreement **connection with PoViva Corp. (formerly PoViva Tea LLC) granting Lexaria a 35-year non-exclusive worldwide license to unencumbered use of PoViva Tea LLC's intellectual property rights, including rights of resale. This license agreement ensures DehydraTECH.** Lexaria has full access to the underlying infusion technology. The United States Patent and Trademark Office (USPTO) **been granted our first patent on October 31, 2017. In 2019, the licence agreement was updated granting Lexaria an exclusive license to use DehydraTECH technology from Poviva for a period of time ending 25 years after the date of the last patent granted to PoViva Corp. Poviva.** Since our first patent **filing grant in 2014 2017 for DehydraTECH, we have increased the number of continued to pursue patent applications internationally in regions that are considered to more than 50 have the highest commercial potential** and, to date, have been allowed/granted **27 37 patents worldwide as of the date of this filing. Our pursuit and development of our technology has expanded our potential area of impact, both geographically and by sector. Because of the applicability of DehydraTECH to many market sectors across the globe, we have taken the necessary steps to protect that intellectual property internationally.**

Lexaria has patents granted or patent applications progressing in countries around the world with aggregate populations of nearly 4 billion people. We pursue international patent protection through filings under the Patent Cooperation Treaty, followed by national filings. Our global patent portfolio now stands at 27 and we have more than 50 patent applications filed in over 40 jurisdictions which are considered as having the highest commercial potential. The patents and patent applications apply to fat-soluble versions of vitamins, NSAIDs, nicotine, cannabinoids, hormones, PDE5 inhibitors, antivirals, and other molecules. Several of our patent families include intellectual property addressing the manufacturing and processing methods used to combine long-chain fatty acids with active pharmaceutical ingredients.

### [Table of Contents](#)

In addition, while ten of our US patents and nine of our Australian patents have been granted to date, we now have received granted patents in the European Union, Japan, India and Mexico, and have multiple other applications filed in the US and around the world. It is not possible to forecast with certainty when, or if, our remaining patents pending will become granted patents. We will continue to pursue our remaining patents pending as vigorously as we are able, since the successful granting of more of those applications could lead to material increases in shareholder value. If our remaining patent applications do become granted patents, our ability to generate meaningful license revenue from our intellectual property may increase from multiple jurisdictions outside of the US.

Our current patent portfolio includes patent family applications or grants pertaining to Lexaria's method of improving bioavailability and taste, and the use of DehydraTECH as a delivery platform, **orally or topically**, for a wide variety of Active Pharmaceutical Ingredients (“APIs”) encompassing **all** cannabinoids; fat soluble

vitamins; NSAIDs pain medications; and nicotine and its analogs. The pending and granted patents also cover the manufacturing and processing methods used to combine fatty acids with active pharmaceutical ingredients. This includes heating and drying methods and use of excipients and substrates. The Company currently has more than 50 patent several applications pending worldwide and due to the complexity of pursuing patent protection, the quantity of patent applications will vary continuously as each application advances or stalls. We continue to investigate national and international opportunities to investigate expansions and additions to our intellectual property portfolio. Patents have been filed specifically for the use of DehydraTECH with cannabinoids for the treatment of heart disease, disease and hypertension to support our anticipated Investigational New Drug ("IND") application with the Food and Drug Administration ("FDA"), and for treatment of epilepsy.

Table of Contents

Lexaria is also filing new patent applications for new discoveries that arise from the Company's R&D programs. We will continue to seek beneficial acquisitions of intellectual property if and when we believe it is advisable to do so. Due to the inherent unpredictability of scientific discovery, it is not possible to predict if or how often such new applications might be filed or patents issued.

The substance of the patents centre on the use of DehydraTECH in a variety of products including those that are ingested or topically administered such as CBD, food, beverage, patches, creams, lotions et cetera. Patents have been filed (and granted in both Australia and the EU) specifically for the use of DehydraTECH with cannabinoids for the treatment of heart disease. The pending and granted patents also cover the manufacturing and processing methods used to combine fatty acids with active pharmaceutical ingredients. This includes heating and drying methods and use of excipients and substrates. Below we summarize Lexaria's allowed/granted patents.

Issued Patent #	Patent Family
US 9,474,725 B1	#1 Food and Beverage Compositions Infused With Lipophilic Active Agents and Methods of Use Thereof
US 9,839,612 B2	
US 9,972,680 B2	
US 9,974,739 B2	
US 10,084,044 B2	
US 10,103,225 B2	
US 10,381,440	
US 10,374,036	
US 10,756,180	
AU 2015274698	
AU 2017203054	
AU 2018202562	
AU 2018202583	
AU 2018202584	
AU 2018220067	
EP 3164141	
JP 6920197	
CDN 2949369	
AU 2016367036	#2 Methods for Formulating Orally Ingestible Compositions Comprising Lipophilic Active Agents
JP 6963507	
MX 388 203 B	
AU 2016367037	#3 Stable Ready-to-Drink Beverage Compositions Comprising Lipophilic Active Agents
IN 365864	
JP 6917310	
MX 390001	

JP 7232853	
CDN 2984917	
CDN 3093414	#6 Transdermal and/or Dermal Delivery of Lipophilic Active Agents
JP 7112510	#7 Lipophilic Active Agent Infused Compositions with Reduced Food Effect
AU 2019256805	#8 Compositions Infused with Nicotine Compounds and Methods of Use Thereof
CDN 3096580	
CDN 3111082	#14 Lipophilic Active Agent Infused Tobacco Leaves and/or Tobacco Materials and Methods of Use Thereof
US 11,311,559	#18 Compositions and Methods for Enhanced Delivery of Antiviral Agents

5

AU 2021261261

US 11,700,875	#20 Compositions and Methods for Sublingual Delivery of Nicotine
<a href="#">Table of Contents</a>	#21 Compositions and Methods for Treating Hypertension
US 11,666,544	
US 11,666,543	

## Patents granted in the year ended August 31, 2022 August 31, 2023

In fiscal 2022, 2023, the Company's patent portfolio expanded to include three new patent families. This further protects our exclusivity in the use of DehydraTECH with sublingual delivery of nicotine, treatment of hypertension and antiviral agents, in compositions that have a reduced food effect and for delivery of lipophilic active agents via transdermal or dermal delivery. These patents are as follows:

- our first ever Canadian patent granted in our 8<sup>th</sup> patent family, to use DehydraTECH to more efficiently deliver nicotine through buccal tissue absorption. The new Australian lipophilic active agents via transdermal or dermal delivery.
- our first-ever US patent entitled "Compositions Infused with Nicotine Compounds and Methods of Use Thereof" granted in our 20<sup>th</sup> patent family, expands upon Lexaria's international intellectual property rights to apply DehydraTECH enhancement technology to most oral forms the sublingual delivery of nicotine, including pills, tablets, lozenges, capsules, pouches, gums and sprays, nicotine. The patent covers many different forms of nicotine including free base nicotine, nicotine salts, polymer resins of nicotine and other forms of nicotine complexes.
- our first-ever patent two US patents granted in our 18<sup>th</sup> 21<sup>st</sup> patent family, to use DehydraTECH in the enhanced delivery of antiviral drugs, in the United States. The new US patent entitled "Compositions and Methods For Enhanced Delivery Of Antiviral Agents" expands upon Lexaria's international intellectual property rights to apply DehydraTECH enhancement technology with antiviral drugs where our research has shown that antiviral drugs processed with DehydraTECH were able to reach peak blood concentration levels that were double those of non-DehydraTECH-processed; and overall volumes of drug delivered into bloodstream were up to triple the amount compared to non-DehydraTECH-processed drugs.
- our first ever patent granted in our 7<sup>th</sup> st patent family which recognizes DehydraTECH's ability, when combined with CBD, to deliver API's more efficiently regardless of the presence of foods within the gastrointestinal system, in Japan. The new Japan patent entitled "Lipophilic Active Agent Infused Compositions With Reduced Food Effect" recognizes the important achievement in reliable drug dosing resulting from DehydraTECH's ability to deliver drugs more consistently into the bloodstream regardless of the presence of food in the gastrointestinal system. treat hypertension.

5

our first Mexican patent in our third patent family, "Stable Ready-to-Drink Beverage Compositions Comprising Lipophilic Active Agents" from which patents have already been issued in Australia, India, and Japan. The patent is applicable to a range [Table of active ingredients that includes but is not limited to non-psychoactive cannabinoids and NSAIDs. Types of products covered include certain pharmaceutical product formats as well as a wide variety of ready-to-drink consumer retail beverage products. Additional claims granted include the treatment of neurological diseases such as Alzheimer's disease, Parkinson's disease, schizophrenia, and Human Immunodeficiency Virus \(HIV\); dementia; obesity; metabolic disorders such as insulin related deficiencies and lipid profiles, hepatic diseases, diabetes, and appetite disorders; cancer chemotherapy; benign prostatic hypertrophy; irritable bowel syndrome; biliary diseases; ovarian disorders; marijuana abuse; and alcohol, opioid, nicotine or cocaine addiction.](#) [Contents](#)



## Research and Development

Lexaria incurred \$1,842,675 (2021- \$1,262,895) \$3,666,721 (2022- \$1,842,675) in R&D expenditures during fiscal 2022, 2023. Specific programs are in ongoing development and are prioritized relative to our financial and operational ability to undertake each research phase for specific APIs. Due to our expanding portfolio coverage, we continue to explore accelerated timetable options for testing, research, and further development. Our ongoing R&D programs are always subject to our existing financial resources and our ability to raise capital to fund them.

The Company regularly pursues new R&D programs that investigate potential commercial applications for the incorporation of DehydraTECH. These include, but are not limited to, ongoing programs to explore methods to integrate nano emulsification chemistry techniques together with DehydraTECH different therapeutic indications that have demonstrated positive results to date, programs to further enhance intestinal bio absorption rates with DehydraTECH, as well as ongoing programs to expand the types and breadth of product form factors into which DehydraTECH DehydraTECH-enhanced drug products can be applied, utilized for the purpose of treatment options. Currently, our primary research program is the investigation of CBD for the reduction of hypertension leading to an upcoming application under the FDA for an IND. Other programs include DehydraTECH formulation development and testing with nicotine for oral pouches and prospective nicotine replacement therapy, human hormones, CBD for diabetes, dementia and others. Depending on the number of programs undertaken, R&D budgets are expected to vary significantly. It is in our best interests to remain flexible at this early stage of our R&D efforts in order to capitalize on potential novel findings from early-stage tests and thus redirect research into specific avenues that offer the most reward.

Lexaria has conducted a number of pharmacokinetic studies designed to provide potential early-stage indications of enhancing delivery characteristics of various drugs for potential future use. Our first human clinical study was published in 2019 (under the title *Advances in Therapy titled "Examination Examination of a New Delivery Approach for Oral Cannabidiol in Healthy Subjects: A Randomized, Double-Blinded, Placebo-Controlled Pharmacokinetics Study"*-see PubMed.gov website: PMID: 31512143 Study), where we demonstrated that DehydraTECH delivered higher volumes of CBD into the human circulatory system and did so more quickly than a concentration-matched positive control. The study demonstrated a statistically significant reduction in human blood pressure ("BP") from the DehydraTECH processed CBD, versus no statistical reduction in human blood pressure from the positive control. The results of this study significantly influenced the direction of Lexaria's research and development of its DehydraTECH technology, technology and led to four subsequent human trial studies, with our most recent study HYPER-H21-4 being completed during the fiscal year and resulting in seven (7) peer reviewed publications *Antihypertensive effects of CBD are mediated by altered inflammatory response: A sub-study of HYPER-H21-4 trial*, *Journal of Functional Foods*; *Chronic effects of oral cannabidiol delivery on 24h ambulatory blood pressure in patients with hypertension (HYPER-H21-4): a randomized, placebo-controlled, and crossover study*, *Cannabis and Cannabinoid Research*; *Chronic Effects of Effective Oral Cannabidiol Delivery on 24-h Ambulatory Blood Pressure and Vascular Outcomes in Treated and Untreated Hypertension (HYPER-H21-4): Study Protocol for a Randomized, Placebo-Controlled, and Crossover Study* *Journal of Personalized Medicine*; *CBD supplementation reduces arterial blood pressure via modulation of the sympatho-chromaffin system: A substudy from the HYPER-H21-4 trial*, *Biomedicine & Pharmacotherapy*; *Effects of CBD supplementation on ambulatory blood pressure and serum urotensin-II concentrations in Caucasian patients with essential hypertension: A sub-analysis of the HYPER-H21-4 trial*, *Biomedicine & Pharmacotherapy*; *The Influence of Oral Cannabidiol on 24-h Ambulatory Blood Pressure and Arterial Stiffness in Untreated Hypertension: A Double-Blind, Placebo-Controlled Cross-Over Pilot Study*, *Advances in Therapy*; and *Differences in Plasma Cannabidiol Concentrations in Women and Men: A Randomized, Placebo-Controlled, Crossover Study*, *International Journal of Molecular Sciences*.

### [Table of Contents](#)

During fiscal 2022, 2023 Lexaria marked significant milestones in utilizing DehydraTECH-processed cannabidiol ("CBD") CBD for investigation of investigating heart disease and hypertension; and separately, for oral nicotine delivery via an oral pouch format, as a non-combusted, reduced-risk alternative to smoking. The following studies are the most recent contributors to our applied R&D programs, programs that were completed in fiscal 2023. These studies have been entirely funded through the Company's existing cash resources.

#### **HYPER-H21-1**

During the spring of 2021 Lexaria commenced its human clinical study HYPER-H21-1 with the intent to validate DehydraTECH-CBD's effect on hypertension. This was a randomized, double-blind, controlled study with 24 subjects aged 45-65 and enrolled with symptoms of either pre-hypertension or mild hypertension. A single 300 mg dose of a DehydraTECH 2.0 CBD formulation was compared against a non-DehydraTECH control of matched concentration. Time series blood pressure and heart rate analyses were the primary objectives of the study. Secondary objectives included pharmacokinetic speed and rate of absorption of CBD and its main metabolites together with assessment of inflammatory markers of cardiovascular disease and nitric oxide biomarkers. The Company noted that the DehydraTECH-CBD treatment was well tolerated by the volunteers with no serious adverse events or side effects observed or reported. Early results disclosed in July 2021 noted a difference between the DehydraTECH-CBD formulation and the control arm at the 20-minute mark that was statistically significant (p=0.025).

## HYPER-A21-1

Animal study HYPER-A21-1, an animal study utilized three new “DehydraTECH 2.0” formulation variations designed to enable CBD delivery performance enhancements and pharmacokinetic optimization. All three new formulations delivered improved performance when compared to both Lexaria’s original DehydraTECH 1.0 and 2.0 concentration-matched formulations, as well as to a medium chain triglyceride (“MCT”) oil based control formulation representative of standard industry practices. The study demonstrated that each of the new DehydraTECH 2.0 formulations delivered very high levels of CBD absorption into brain tissues, dwarfing the levels achieved with the MCT oil-based control formulation. The three new DehydraTECH 2.0 formulations delivered between 907%-1,737% more CBD into brain tissue than the MCT oil-based control formulation, similar to the up to 1,937% increase over the MCT oil based control formulation announced previously for Lexaria’s original DehydraTECH 2.0 formulation.

## HYPER-H21-2

Dosing was completed in July of 2021 in our second human clinical study in 2021 which was conducted at a European medical research hospital and designated as HYPER-H21-2. On September 7, 2021, Lexaria announced the results which evaluated 16 volunteers (8 male; 8 female) aged 45-65 who were pre or mildly hypertensive and received three separate doses of 150mg DehydraTECH 2.0 CBD versus placebo. The study concentrated on monitoring blood pressure reduction continuously over 24 hours and studying central arterial stiffness, physical activity, and sleep quality.

At selected times during the 24-hour study, volunteers with mild to moderate hypertension averaged as much as a 20 mmHg (i.e., 23%) decrease in BP relative to placebo. Over the 24-hour ambulatory monitoring period, volunteers averaged a significant reduction of 7.0% ( $p < 0.001$ ) in systolic pressure with DehydraTECH-CBD relative to placebo. The study indicated that, within a 24 hour period, DehydraTECH 2.0 CBD provided a significant reduction of 3.5% in diastolic pressure relative to an increase in diastolic pressure from baseline. This is a substantial discovery as existing drugs for hypertension typically take several weeks before comparable blood pressure reductions are seen.

Further results from the study were announced on December 8, 2021, whereby DehydraTECH 2.0 CBD was also found to reduce arterial stiffness after only one day of dosing which could have the potential as a treatment for cardiovascular and other disease. This potentially broadens its application to treatment of cardiovascular and other disease states beyond hypertension where it has already shown promise.

## HYPER-H21-3

Final results from HYPER-H21-3 illustrated DehydraTECH CBD’s ability to reduce blood pressure pursuant to a simulated pulmonary hypertension scenario. The study was successfully completed with positive safety and efficacy findings. Findings indicated a tendency ( $p=0.1$ ) during 15 minutes of simulated low levels of oxygen (hypoxia) for reduced pulmonary artery systolic pressure (“PASP”) with DehydraTECH-CBD treatment versus placebo. Most notably, PASP was significantly attenuated by about 5 mmHg or 41% overall ( $p=0.045$ ) in male participants specifically suggesting differences by sex in responsiveness to CBD treatment under hypoxic stress conditions.

Study HYPER-H21-3 used a placebo-controlled and double-blinded design, with administration of a single 300mg dose of a specific DehydraTECH-2.0 CBD formulation compared to placebo in a target group of sixteen enrolled volunteers (8 females and 8 males; aged 18-35 years). The study participants were subjected to a 30-minute period of rest following dosing, during which time they breathed normal room air (i.e., 21% oxygen), followed by a 40-minute period of simulated hypoxia (i.e., 12% oxygen) that was induced in order to safely simulate robust hypoxic pulmonary vasoconstriction (“HPV”) and, as a result, an acute state of pulmonary hypertension. The hypoxia state was intended to mimic conditions experienced by those traveling or walking at high altitude or by those engaging in other activities of diminished oxygen availability conducive to development of HPV. Adverse elevations in HPV also commonly occur in related hypoxemic pathologies (e.g., severe lung disease) and pulmonary hypertension. Measurements of PASP were performed via echocardiography at intervals of 15 and 30 minutes during the 40-minute hypoxic period comparing the effects of DehydraTECH-CBD to placebo.

## [Table of Contents](#)

### Hypertension: HYPER-H21-4

HYPER-H21-4 is was the most ambitious study Lexaria has had ever undertaken and is enabled was supported from the successful outcomes from our other 2021 human hypertension studies. This study was intended to “de-risk” outcomes prior to Lexaria’s planned entry into formal investigational new drug (“IND”) regulatory pathways for the use of DehydraTECH-CBD to treat hypertension and possibly other forms of cardiovascular disease. The study protocols were approved by the Independent Review Board in December 2021 with the program commencing in April 2022 and dosing completion in July 2022. The primary efficacy outcome from the study was the data related to 24-hour ambulatory blood pressure. Secondary study outcomes included: vascular health including arterial stiffness and autonomic balance; electrocardiogram analysis; brain structure and function through magnetic resonance imaging (MRI) testing; blood biomarkers (including renal, hepatic inflammation, lipids such as cholesterol); sleep quality / daytime sleepiness / sleep disorders; actigraphy, geriatric depression scale, perceived stress, and Beck anxiety inventory.

The study consisted of 66 volunteers between the ages of 40-70 and used a double blinded, randomized cross-over design, which utilized a placebo control. Some volunteers were recruited who were using hypertension drugs such as ACE angiotensin-converting enzyme inhibitors, with or without diuretics, to help evaluate

the efficacy of DehydraTECH CBD with and without other hypertension treatments.

Large quantities of data have been gathered since the inception of the study with data analyses beginning in September 2022 as results became available from ongoing bioanalyses of biological samples collected during the study. Each of these sets of data may lead to additional applications for DehydraTECH-CBD. For example, the MRI data may assist one of the secondary outcome measurements in the study to evaluate possible positive effects upon brain structure and function; and the detailed psychometric testing may reveal new insights into the potential benefits for mental health. The wide range of data collection could provide additional insights into the long-term health benefits of DehydraTECH-CBD that might otherwise remain undetected.

In December of 2021 the Independent Review Board approval was received and the program began in April 2022 with dosing with DehydraTECH-CBD completed in July 2022. In October 2022 Lexaria announced initial findings from HYPER-H21-4 evidencing a sustained drop in blood pressure (BP) in normally active hypertensive patients following multiple weeks of oral CBD therapy, using Lexaria's patented DehydraTECH-CBD capsule formulation. The primary safety and efficacy objectives of the study were successfully achieved. BP was significantly reduced by 2.5 weeks and was sustained over the full 5-weeks of dosing using relatively low doses of CBD (as compared to other regulator approved pharmaceutical CBD applications) as a direct result of the well-established drug delivery efficiencies of Lexaria's DehydraTECH technology. These reductions in BP were achieved with zero serious adverse events being reported. Also, there were no adverse changes observed in liver enzymes which is an important clinical safety biomarker of oral CBD therapy. Of note, these significant decreases in BP were achieved using relatively low doses of DehydraTECH-CBD as a direct result of the well-established drug delivery efficiencies of Lexaria's DehydraTECH technology.

---

## 6

---

### Table of Contents

There were no serious adverse events to reported report as a result of the program dosing. This demonstrates a noteworthy safety and tolerability profile relative to conventional anti-hypertensive medications. This is a major achievement for Lexaria, as avoiding serious adverse events at clinically efficacious doses will be a primary requirement to achieve eventual regulatory marketing authorizations.

Another important discovery from study HYPER-H21-4 was that the decreases in BP were similar in persons currently being treated with standard of care BP medications as in persons who were not undergoing any current standard of care BP treatment. This observation is suggestive that Lexaria's DehydraTECH-CBD has the potential to offer additive BP reduction benefits on top of any degree of improvements the standard of care medications achieved for those patients before entry into the study. This additive improvement as an adjunct therapy, together with the exceptional safety profile of DehydraTECH-CBD, could become a significant value enhancer should it eventually enter the marketplace as an approved hypertension treatment. As expected,

In February 2023, additional results from the study produced an enormous amount data analyses revealed modulation of data that is initially supportive of Lexaria's plans to enter regulatory pathways under IND with a view to eventual regulatory approval to use DehydraTECH-CBD to treat hypertension if successful. Additional study endpoint analyses as described circulating compound called catestatin in the complete blood of study protocol are ongoing subjects which may point to a unique mechanistic benefit upon cardiovascular regulation with DehydraTECH-CBD treatment. Catestatin is a multifunctional peptide known to have inhibitory effects on the sympathetic nervous system in the pathophysiology of hypertension.

In May 2023, final results from HYPER-H21-4 revealed that blood-plasma levels of interleukin 8, 10, and any relevant material findings will 18, being pro-inflammatory biomarkers known to be reported upon linked to cardiovascular disease, were reduced significantly by ~19%, ~27%, and ~43%, respectively.

Overall, HYPER-H21-4 resulted in due course as these findings become available, the above-noted seven peer reviewed publications and data sets which further strengthens and supports the case for DehydraTECH-CBD offering distinctive mechanistic benefits for the treatment of hypertension.

### **Cannabidiol: Epilepsy: EPIL-A21-1**

In March 2022, Lexaria commenced an initial animal study to determine if DehydraTECH-CBD evidences superior treatment of seizure activity when compared to Epidiolex. Epidiolex is an FDA-approved oral solution prescription CBD available to children 1 year of age and older to treat seizures associated with Lennox-Gastaut syndrome, Dravet syndrome or tuberous sclerosis complex. In September 2019, Epidiolex was approved for use in all 27 member countries of the European Union. Epidiolex was developed by GW Pharmaceuticals plc and is now sold by Jazz Pharmaceuticals subsequent to their 2021 takeover of GW Pharmaceuticals. Epidiolex's effectiveness was studied in three randomized clinical trials involving a total of 516 patients and was shown to be effective in reducing the frequency of seizures when compared to placebo.

Lexaria's animal study utilized a vehicle-controlled, acute animal seizure model induced by electrical stimulation ("MES"), with DehydraTECH-enhanced CBD 2.0 formulations administered at lower doses than were required with Epidiolex to inhibit seizures. EPIL-A21-1 found that dosages of 50 mg/kg and 75 mg/kg DehydraTECH-CBD was more efficacious than Epidiolex in reducing or eliminating seizure activity; however 100 mg/kg doses of Epidiolex as compared to DehydraTECH-CBD was shown to have greater efficacy in eliminating seizure activity. Lexaria performed a second MES animal seizure study to measure time to

peak efficacy at various post-dosing time points. At the 30-minute timepoint, 50% of the animals dosed with DehydraTECH-CBD showed partial reduction or full elimination of seizure activity whereas 100% of the Epidiolex-dosed animals were exhibiting full seizure activity. At the 60-minute timepoint 87.5% of the animals dosed with DehydraTECH-CBD showed partial reduction or full elimination of seizure activity compared to 62.5% of the Epidiolex-dosed animals showing partial reduction or full elimination of seizure activity. Epidiolex showed some enhanced seizure reduction capabilities at later time points in the study. Additional work has been completed in this animal study program EPIL-A21-1 to establish an ED50 (i.e., the dose required to achieve seizure inhibition in 50% of the animals tested) for DehydraTECH-CBD, where ED50 determination is a common performance metric in preclinical animal studies for developmental therapeutics. This study confirmed that the DehydraTECH 75 mg/Kg dose was established as the calculated ED50. The results from EPIL-A21-1 may result in further studies should funding and resources be available.

#### **Hormone Therapy: HOR-A22-1**

During fiscal 2023, Lexaria completed and reported on its HOR-A22-1 tolerability and PK pilot study in animals using a DehydraTECH-estradiol composition. Results evidenced that the DehydraTECH-estradiol formulation achieved an average peak concentration in the bloodstream that was roughly nine times (900%) higher than that achieved with the control formulation. As well, because estradiol is known to be quickly converted into the metabolite estrone by cells in the uterus, mammary glands and liver, estrone levels were also quantified in the study, which revealed that levels of the estrone metabolite were also significantly higher with the DehydraTECH formulation showing greater than a twenty-fold (2,000%) improvement in delivery as compared to the control formulation. Lexaria also discovered that the area under the curve findings for its DehydraTECH-estradiol formulation were at least fifteen times (1,500%) greater for estradiol and over one hundred and twenty-five times (12,500%) greater for estrone than the control.

#### [Table of Contents](#)

Lexaria's animal study is being conducted by a leading US-based independent laboratory using advanced DehydraTECH 2.0 formulations and is fully funded through existing Lexaria resources. Lexaria hopes to demonstrate similar or superior levels of efficacy based on the known advanced drug delivery capabilities of DehydraTECH. Lexaria's seizure program expects to leverage the significant gains in systemic delivery and brain uptake that the Company has evidenced from other studies comparing DehydraTECH 2.0 CBD formulations with concentration-matched controls.

#### **THC-A21-1**

In the first quarter of 2022, Lexaria announced the results from its tetrahydrocannabinol ("THC") animal study which compared DehydraTECH-enhanced THC with concentration matched controls. We discovered that DehydraTECH-enhanced THC delivery into the blood plasma occurred within 15 minutes of oral ingestion as compared to parallel levels of THC delivery into blood plasma occurring at 45 minutes for the concentration matched controls. Furthermore, DehydraTECH-THC delivered more THC into the bloodstream than the industry standard medium chain triglyceride ("MCT" or "coconut oil") based control formulation from the 2-minute mark onwards, then dropped to the same level as the MCT control by the 6-hour mark.

#### **Estradiol: HOR-A22-1**

Lexaria began a tolerability and PK pilot study in animals using a DehydraTECH-estrogen composition in an effort to determine if absorption enhancement following oral administration was possible. After commencing this study work, our third-party laboratory performing may lead Lexaria to investigate the study concluded that the bioanalytical methodology employed required modification in order to adequately detect and quantify estrogen analytes in the animal bloodstream. Methodological optimization is in progress, following which blood plasma samples will be analysed and results reported.

#### **Ibuprofen and Naproxen: NSAID-A21-1**

The Company commenced a tolerability pilot study in animals evaluating DehydraTECH-processed formulations of ibuprofen and naproxen in an effort to determine if dosing evidenced superior gastrointestinal tolerability comparing Lexaria's DehydraTECH test articles to concentration-matched controls. The study was undertaken based on the possibility that DehydraTECH-processed NSAIDs might achieve higher bioavailability and brain uptake than conventional formulations and, in turn, be able to be used at lower dosage levels in order to lower unwanted side effects. Our results saw some indications of less stomach ulcerations with our DehydraTECH formulations although the findings were generally unremarkable. As a result, no further research on NSAIDs is currently contemplated although this may be revisited.

#### **Sildenafil: PDE5-A21-1**

PDE5-A21-1 was an animal PK study conducted by third-party laboratories to evaluate DehydraTECH processing of the phosphodiesterase inhibitor ("PDE5 inhibitor") sildenafil for potential application in the management of erectile dysfunction. PDE5 inhibitor drugs work using a process of vasodilation and most are considered to be slow-acting, requiring 1-2 hours to reach peak levels in the bloodstream for maximum effectiveness.

Lexaria announced the results of our comparison study in February 2022 of DehydraTECH enhanced sildenafil with concentration matched controls. It was discovered that DehydraTECH-enhanced sildenafil delivered 74% more sildenafil into the bloodstream in as little as four minutes when compared to the concentration-matched, generic control formulation. This clear trend toward faster and higher overall delivery of sildenafil into the bloodstream was evidenced

over the course of the study. Seven minutes after dosing, the DehydraTECH-sildenafil formulation achieved an average blood level higher than the generic sildenafil control formulation reached at any point during the study.

#### **Viral-A20-3**

In July of 2021, we released the positive results of our completed tolerability and pharmacokinetic animal study VIRAL-A20-3 which enhanced colchicine with DehydraTECH. This study was performed by an independent, premier animal testing laboratory located in the United States using 20 Sprague-Dawley rats, dosed via oral gavage using either DehydraTECH or control colchicine formulations (i.e. 10 rats per test article). The study evaluated peak concentration ("Maximum Concentration" or "Cmax") and total drug delivery into the rodent bloodstream ("Area Under the Curve" or "AUClast").

#### [Table of Contents](#)

Similar to other antiviral agents that Lexaria has processed with DehydraTECH (e.g., darunavir, efavirenz, remdesivir's nucleoside analogue GS-441524 and ebastine), oral colchicine in its available forms today exhibits diminished bioavailability (approximately 45%) in humans. This study demonstrated that DehydraTECH enabled colchicine, benefited from our proprietary formulation and processing, resulting in increased delivery.

Colchicine is an approved therapeutic with anti-inflammatory effects that is principally used to treat gout and conditions such as cardiac inflammation (i.e., pericarditis), and also has potent effects in mitigating the cytokine storm associated with SARS-CoV-2/COVID-19. Colchicine is occasionally recommended and used to treat emergent pericarditis in children in cases where this form of cardiac inflammation develops following administration of mRNA COVID-19 vaccines. Due to its narrow therapeutic index, meaning the distinction between toxic and non-toxic doses is marginal, there could be significant benefits in dosage reduction through the use of DehydraTECH while maintaining therapeutic delivery levels for human hormone therapies.

#### **Diabetes: DIAB-A22-1**

DIAB-A22-1, is was a 56-day animal program undertaken by a third-party testing laboratory located in Canada to explore the ability of DehydraTECH-CBD to potentially affect treatment of diabetes. The laboratory work is expected to complete in the second quarter of calendar 2023 with data and reporting to follow thereafter. Lexaria is exploring the use of DehydraTECH-CBD for the treatment of treat diabetes, due to its evidenced the safety and efficacy of DehydraTECH-CBD in human hypertension studies and the strong connections between heart disease, hypertension, and diabetes. Diabetes is a disease whereby the body does not produce sufficient insulin, leading to higher-than-normal levels of sugars in the blood. Risks The results from this study were announced in March and June 2023 and evidenced the following achievements of kidney disease, vision loss, heart and cardiovascular disease and more are greatly enhanced by sufferers DehydraTECH-CBD in obese diabetic-conditioned animals:

- Lowered blood glucose levels by 19.9% (p<0.05)
- Lowered overall body weight by 7% sustained over 8 weeks
- Witnessed a statistically significant increase in locomotor activity (p<0.05)
- Lowered triglyceride levels by more than 25% (p<0.007)
- Lowered blood urea nitrogen levels by 27.9% (p<0.001)

Based on these results, Lexaria is planning to undertake a human diabetes clinical study to investigate whether any of diabetes. Because these improvements will be evidenced in humans. Subject to completion of a study design that receives the necessary IRB approval, Lexaria intends to conduct this human diabetes is often closely connected to obesity, study at the same medical research hospital in Europe that it is a chronic and growing problem around much of the world. has utilized for its recent human clinical hypertension studies.

#### **Dementia: DEM-A22-1**

Lexaria has evidenced the efficacy of DehydraTECH-CBD in human hypertension studies with no serious side effects. The connections between hypertension and dementia have been established in recent clinical studies. Individuals who have high blood pressure are more likely to develop vascular dementia, which is the second most common form of dementia following Alzheimer's disease. Dementia is a term describing the loss over time of cognitive abilities related to memory, language, problem solving abilities and behaviour. Certain trials are underway to investigate the use of nicotine for possible utility related to dementia, where some clinical success has already been reported. Others have conducted research evidencing therapeutic potential of cannabinoids including CBD in a variety of neurodegenerative diseases. Alzheimer's is the most common form of dementia and accounts for at least 60% of all cases, and nicotine is showing promising results related to its treatment. According to the World Health Organization, 55 million people are currently suffering from dementia with roughly 10 million additional people being diagnosed each year, with 78 million expected to be living with some form of dementia by 2030. Drugs used to treat dementia represented a \$15.5 billion market in 2021, expected to double to a \$32.3 billion annual market by 2030, in part due to the generally aging populations.



Lexaria has had previously demonstrated in animal studies that DehydraTECH-CBD crosses the blood brain barrier ("BBB") much more effectively than originally thought possible. Given the propensity of DehydraTECH-CBD Based on this validation, in November 2022 we commenced an investigation as to cross the BBB; the established fact that DehydraTECH-CBD lowers human blood pressure; and the fact that CBD is known to act with vasodilation properties, we intend to investigate whether DehydraTECH-CBD might have some positive effect on dementia. This The inconclusive results from the efficacy animal study, DEM-A22-1 were reported on in June 2023, with the determination that any future investigations using DehydraTECH-CBD as a treatment for dementia will evaluate if DehydraTECH-CBD require an improved study design with a longer duration with the potential addition of DehydraTECH-nicotine which may potentially have therapeutic utility against dementia. The laboratory work is expected to complete in second quarter of 2023. Depending on the outcomes, Lexaria is considering additional studies that might utilize either DehydraTECH-processed nicotine alone or in combination with CBD. additive efficacy potential.

#### **Rheumatic Diseases: RHEUM-A22-1**

Lexaria is considering an animal study to investigate the ability of DehydraTECH-CBD to potentially affect treatment of rheumatoid disease. Rheumatic diseases are autoimmune and inflammatory diseases that cause the immune system to attack joints, bones, muscles and organs. There are over 100 rheumatic diseases including Fibromyalgia, Lupus, Osteoarthritis and Rheumatoid Arthritis. The Rheumatoid Arthritis therapeutics market alone is expected to be over \$30 billion per year by 2025. Lexaria has yet to commence study RHEUM-A22-1 as we are in the process of evaluating potential third-party service providers and suitable animal models to do so.

#### **Nicotine: NIC-A21-1.**

The results of our investigative work on the pharmacokinetic performance of DehydraTECH 2.0 nicotine formulations, specifically via the oral buccal/sublingual route of administration, were released in October 2021. We reported our Study NIC-A21-1 conducted in male beagle dogs, which demonstrated that DehydraTECH nicotine administered via the oral pouch product format required only 2 to 4 minutes to deliver nicotine levels in blood plasma comparable to levels achieved at 45 minutes with concentration-matched controls. DehydraTECH-nicotine also reached statistically significant peak blood plasma levels up to 10-fold higher overall than controls ( $p=0.004$ ) while still clearing from blood virtually as quickly as the controls. Two nicotine formats were investigated in this study: nicotine benzoate and nicotine polacrilex. We found that the generic nicotine benzoate pouch required approximately 45 minutes to reach its peak delivery rate whereas the DehydraTECH nicotine benzoate pouch reached peak delivery rates at both 8 minutes and again at 30 minutes. It was found that 4 minutes after the pouch was placed in the mouth, the DehydraTECH-nicotine had reached a higher delivery level than the generic achieved at any point during the study. Similarly, the generic nicotine polacrilex pouch also required approximately 45 minutes to reach its very subdued peak delivery rate while the DehydraTECH nicotine polacrilex pouch achieved a comparable level in just 2 minutes. The DehydraTECH nicotine polacrilex pouch delivered over 10 times the nicotine level in blood plasma at peak than the generic version while still clearing from blood virtually as quickly as the controls.

#### [Table of Contents](#)

#### **Nicotine: Smoking Cessation: NIC-H22-1**

In November of 2022 we received independent review board approval for human clinical nicotine study NIC-H22-1, a 36-person human PK randomized, double blinded, cross-over study conducted in current cigarette smokers, wherein each person will visit visited the laboratory to be dosed three times over a period of weeks. During each visit only one oral nicotine pouch will be was administered and evaluated: either DehydraTECH-nicotine; On! DehydraTECH-Nicotine; on!™ brand manufactured by Altria; or Zyn™ brand manufactured by Swedish Match™. Predetermined questionnaires for subjective evaluation will be used for each oral nicotine pouch, and blood samples will be were taken 8 times per visit to conduct objective evaluations related to the quantity of nicotine in blood at various time points. Data on vital signs such as temperature, blood pressure, heart and respiratory rate will also be collected. Subjective evaluations related to throat burn, user experience, gastrointestinal experience will were also be conducted. Dosing for this study completed in May 2023 and the resulting data confirmed that Lexaria's oral nicotine pouch was statistically significantly faster in the median time required to reach comparable maximum nicotine concentrations within the bloodstream, than both on! (15% faster) and ZYN (over 20% faster).

Participants in the study also answered a number of subjective questions about their experience with the three oral pouch products and the results indicated that the Lexaria hopes oral pouches resulted in no moderate to evidence that processing purified nicotine severe graded hiccups, lowest frequency of severe nausea and several instances of the highest positive endorsement ratings with DehydraTECH leads respect to better oral-tissue absorption tolerability, pleasure, euphoria & head rush and reduced negative experiences compared mouth & throat burn.

Lexaria now seeks to currently marketed brands. The study had earlier faced certain time extensions due to manufacturing commercialize DehydraTECH-Nicotine with suitable industry partners based on its clinical and logistics, those issues since resolved. The study is fully funded from internal company resources. Lexaria will provide further updates and any relevant material findings in due course. intellectual property advancements.

#### **Business Development**

## Hypertension

Approximately 1.28 billion people worldwide suffer from hypertension - elevated blood pressure - and it is recognized as one of the world's top health problems. Only 21% of people with hypertension have it under control which demonstrates enormous unmet need. Among persons 50 years of age or older, isolated systolic hypertension is the most common form of hypertension, and systolic blood pressure becomes can be more important than diastolic blood pressure as an independent risk predictor for coronary events, stroke, heart failure, and end-stage renal disease.

Drugs focused on blood pressure and related conditions are some of the best selling drugs in the world. Lipitor™, used to treat high cholesterol and reduce the risk of heart disease, has generated \$94.7 billion \$163 billion in revenue from 1992 until 2017, 2021. Plavix™ is used to prevent heart attack and stroke, has sold \$46.5 billion \$84 billion from 1992 until 2017. There are several hypertension drugs that each generate \$1 billion per year or more in revenue. Hypertension, valued at \$28 billion per year \$20.5 billion in 2021 and expected to reach \$39.5 billion by 2030, is one subset of the broader cardiovascular disease category, which is expected to be estimated as a \$146 billion \$82.5 billion market in 2022, 2023.

8

### [Table of Contents](#)

Lexaria is determined to fill the need for a safe, effective, tolerable treatment for hypertension and have a meaningful impact on comorbidity-related costs and deaths with our DehydraTECH-CBD. In pre-clinical and exploratory studies conducted to-date, Lexaria has evaluated through in vivo, in vitro, and human clinical testing the repeatedly evidenced efficacy in utilizing DehydraTECH-CBD to reduce blood pressure while avoiding serious negative adverse effects. Efficacy and lack of negative side effects are two major objectives of FDA-registered clinical studies. With the continued favorable results from our 2021-2022 2021-2023 HYPER programs, we have begun the Investigational New Drug "(IND)" ("IND") application process. Lexaria has retained the services of a regulatory affairs and quality assurance consultancy group that assisted us with the preparation of our pre-IND meeting with the FDA. They are now assisting us with our protocol finalization and IND filing, filing which we hope to submit by the end of the calendar year.

On June 6, 2022, During the 2022 fiscal year, we successfully filed a pre-IND meeting request with the U.S. Food and Drug Administration ("FDA"). The FDA has responded to and confirmed Lexaria's filing and requested a pre-IND meeting, which formally initiates communications with regarding the FDA regarding development of Lexaria's DehydraTECH-CBD for the treatment of hypertension. The purpose of the pre-IND meeting is to confirm the details and acceptability of Lexaria's ongoing IND-enabling development program to be completed thereafter prior to proceeding with its full IND application filing.

On August 10, 2022, the FDA sent a positive written response from its pre-IND meeting regarding DehydraTECH-CBD for the treatment of hypertension. The FDA and confirmed that it has agreed its agreement with Lexaria's proposal to pursue a 505(b)(2) new drug application ("NDA") regulatory pathway for our its program. This is advantageous because this abbreviated pathway as it is often described, typically enables a quicker route to commercial approval than a traditional 505(b)(1) NDA pathway. Within this communication the FDA agreed that additional non-clinical studies are not required prior to initiation of the DehydraTECH-CBD IND program, given the compelling data presented by Lexaria and others regarding the safety and tolerability of CBD. This supports Lexaria's belief that our recent human clinical study program would support our pursuit of eventual FDA registrations.

11

### [Table of Contents](#)

Lexaria's new IND-enabling program is made possible through successfully completed studies that have provided support for more ambitious commercial goals. Recently achieved successful results from two human clinical pharmacodynamic hypertension studies HYPER-H21-4 study along with the historical results from its HYPER-H21-3, HYPER-H21-3, HYPER-H21-1 and a our 2018 human clinical pharmacokinetic ("PK") study, along with a number of successful animal studies demonstrating PK performance pharmacokinetic ("PK") performance; and the molecular characterization work completed through Canada's National Research Council, have together established a strong body of evidence for Lexaria's DehydraTECH-CBD. These studies have shown that DehydraTECH-CBD demonstrates superior bio absorption upon oral administration and is effective at reducing blood pressure with no significant unwanted side effects.

Subject During fiscal 2023, Lexaria has been working diligently with its third-party regulatory and clinical advisors in the development of its IND study protocol, has interviewed and selected its contract research organization, InClin Inc. as announced on April 24, 2023, and has been developing its clinical trial DehydraTECH-CBD drug product in order to budgetary constraints, obtain the stability data needed for its IND application to the FDA. As announced in its news release of August 30, 2023, Lexaria plans is waiting on one of its third party material suppliers to continue complete certain analytical and stability testing, which we expect to be completed prior to the end of the calendar year, to be followed with in vitro and in vivo studies testing the absorption of many API's - CBD, vitamins, PDE5 inhibitors, antiviral drugs, nicotine, and others - to substantiate the effectiveness of DehydraTECH. More than simply satisfying scientific curiosity, successful tests

are expected to lead to increased awareness and acceptance filing of our technology as a meaningful effective alternative to current delivery methods. Therefore, absorption tests could increasingly become an important element leading towards higher rates of acceptance of our technology licensing initiatives. IND application with the FDA.

## Nicotine

More than 99% of all Most nicotine consumed worldwide is delivered through smoking cigarettes. Worldwide, approximately 6m over 6 million deaths per year are attributed primarily to the delivery of nicotine through the act of smoking. This is according to the Centers for Disease Control and Prevention, which also estimates that over \$170b \$170 billion per year is spent just in the U.S. on direct medical care costs for adult smokers. Lexaria hopes to see the reduction of common but less healthy nicotine administration methods by way of enabling development of safe and effective oral nicotine dosage formats.

The oral nicotine pouch category is one of the fastest growing segments of the nicotine industry due in part to its reduced risk health outcomes as noted by the FDA. This delivery method, in the white pouch format specifically, involves absorption primarily through the buccal tissues of the mouth, of purified nicotine that has been separated from most other harmful compounds in the tobacco leaf, which leaf and avoids harmful lung outcomes experienced by smokers or vapers, The global market for the oral nicotine pouch category was US\$2.33 billion in 2020 and is expected to reach \$21.84 billion in 2027.

## DehydraTECH-Nicotine Research

During fiscal 2023, Lexaria has expanded on its previously completed ingestible nicotine *in vivo* (animal) absorption study work. In a work conducted in 2018, we conducted a study designed to assess the relative ingestible nicotine absorption performance of DehydraTECH-powered formulations when compared to concentration-matched control formulations in rats, which had found that DehydraTECH formulations delivered some major nicotine absorption performance improvements: improvements in rats: 1,160% faster delivery of equivalent peak quantities of nicotine to the bloodstream than achieved with controls (within 15 min vs. 2.9 hours), 148% gain in the quantity of peak nicotine delivery to the bloodstream relative to controls, 560% higher brain levels of nicotine where nicotine effects are focused, compared to controls, lower urine levels of nicotine excreted than controls, for enhanced nicotine activity and bioavailability over the course of the study, lower quantities of key liver metabolites in the bloodstream than controls as hypothesized, suggesting bypass of first pass liver metabolism.

The DehydraTECH formulations generally achieved As noted above, Lexaria conducted its first human clinical trial (NIC-H22-1) to test its DehydraTECH-Nicotine formulation in an oral pouch format which confirmed that DehydraTECH-processed nicotine was faster absorption, higher peak absorption, and higher overall quantities of nicotine, on average, than other commercial oral pouch products in the blood than the concentration-matched control formulations at both the 1mg and 10 mg/Kg doses tested. Furthermore, there were no obvious signs of gastrointestinal distress such as vomiting or diarrhea indicating that the animals appeared to tolerate the treatment well.

Nicotine blood levels were evaluated multiple times over a period of 8 hours after dosing. In the 10mg/Kg dosing arm, the control formulation median time required nearly 3 hours to reach similar levels of blood absorption that comparable maximum nicotine concentrations within the DehydraTECH formulation reached in only 15 minutes. Furthermore, the DehydraTECH formulation went on thereafter to demonstrate peak plasma levels that were 148% of those achieved by the control formulation. If replicated in human studies, these findings are suggestive that DehydraTECH could prove more effective in elevating blood nicotine levels through edible formats much more quickly and substantially than previously theorized, potentially making ingestible nicotine preparations a viable alternative to today's available product formats while also leading to a more rapid nicotine craving satiation.

Analysis of the liver metabolites revealed that overall levels in the blood of two of the three metabolites studied were higher in the control group than in the DehydraTECH formulation group at the 10 mg/Kg dose. The study also revealed that the DehydraTECH formulation at the 10 mg/Kg level achieved up to 5.6-times as much nicotine upon analysis of the rat brain tissue than was recovered with the matching control formulation. These findings together perhaps suggest prolongation of nicotine effectiveness with the DehydraTECH formulation which may also be beneficial in humans to control cravings over an extended time-period from a single edible nicotine dose. bloodstream.

## [Table of Contents](#)

Following the above study, additional results were reported in August 2018 by way of a follow-up third-party *in vivo* study including two groups of 20 animals. This study further demonstrated delivery of nicotine in edible form at each of the 2, 4, 6, 8 and 10-minute intervals post-dosing, with 90.2% greater delivery than the concentration-matched control formulation by the 10-minute mark (95% CI;  $p=0.044$ ), and significantly greater absorption levels than the control formulation at all



subsequent time points in the study. Speed of onset is a key attribute for oral drug administration, and it is of particular importance for the consideration of non-inhalation nicotine delivery formats. Some of the highlights of this study were: 79% improvement in peak blood levels; 94% improvement in total quantity of nicotine delivered to the blood during the 60-minute course of the study and; Lexaria's technology delivered nicotine into the blood stream by the first time interval of blood sampling at the 2-minute mark.

### Nicotine Patent Patents

In June 2023, Lexaria received its Canadian patent for *Compositions Infused With* the grant during the year ended August 31, 2022, *Nicotine Compounds and Methods of Use Thereof* which builds on its previously issued Australian patent within the same family.

In July 2023 Lexaria received its first US patent in a new patent family entitled *Compositions and Methods For Sublingual Delivery of Nicotine* which includes claims for many types of nicotine, including nicotine benzoate, nicotine ditartrate, nicotine citrate, nicotine polacrilex, and many others, for use in sublingual delivery formats like oral pouches.

In August 2023, Lexaria received its first Canadian patent in a new patent family entitled *Lipophilic Active Agent Infused Tobacco Leaves and/or Tobacco Materials and Methods of Use Thereof*. This patent recognizes Lexaria's innovations in infusing tobacco leaves directly with drugs or active molecules such as nicotine with or without cannabinoids for potential applications such as treating nicotine addiction.

Lexaria believes that further potential patent awards in these families would serve to support significant competitive advantages in the nicotine white pouch category, as well as other oral nicotine product formats such as pills, tablets, lozenges, capsules, gums and sprays. A similar patent filing has been made in the USA. As Lexaria demonstrates the benefits of DehydraTECH enabled oral nicotine pouches as an alternative to smoking cigarettes as a delivery method for nicotine, we anticipate there are increased possibilities of engaging in licensing arrangements with major tobacco companies. Given the rapid progress Lexaria is making towards development of oral nicotine products, the intellectual property protection afforded by this patent and other similar patent applications, could be meaningful towards building stakeholder value.

### Nicotine Collaborations

In April of 2022 the Company announced new agreements with Altria Client Services, LLC ("Altria") in effect until March 31, 2023. Under the terms of these agreements, Lexaria will receive received a fee to provide certain DehydraTECH powder-based nicotine formulations to be evaluated by Altria. Lexaria is not aware of Altria's current intentions with regard to DehydraTECH. In 2019, the Company entered into a definitive agreement with Altria to fund the R&D of DehydraTECH technology as it relates to nicotine. In exchange for a minority equity interest (16.67%) in our subsidiary Lexaria Nicotine LLC, Altria was to fund up to \$12m \$12 million for Lexaria Nicotine to conduct milestone-based clinical investigations utilizing DehydraTECH. Altria did not exercise its First Warrant Tranche to invest a further staged payment into Lexaria Nicotine and that warrant therefore expired on October 8, 2020 along with Altria's former exclusive access to DehydraTECH for nicotine in the US market.

### Other Research

Lexaria's IND study will consume the majority of its financial resources and management time once it is undertaken, however, as noted above, based on the results from its DIAB-A22-1 study, Lexaria is also planning to undertake a human diabetes clinical study to investigate whether any of the improvements witnessed in the animal subjects would also be evidenced in humans. Lexaria intends to complete a study design and will endeavour to obtain ethics board approval for this human diabetes study by the end of calendar 2023.

Lexaria is also preparing a study program, pending funding availability, to investigate whether DehydraTECH could have any effect on GLP-1 drugs currently approved by FDA for treatment of diabetes and for weight loss.

### Licensing

The Company began out-licensing our Lexaria has strategically structured its organization to obtain the most value from its DehydraTECH patented technology in and has provided its subsidiary companies with exclusive rights to use DehydraTECH or sublicense DehydraTECH with specific molecules, namely, THC, CBD, Nicotine, and all other molecules.

Lexaria Nicotine LLC, (16.667% owned by Altria Ventures Inc.) holds the US in 2018 exclusive rights to the use or sublicense of DehydraTECH with nicotine molecules. As at the fiscal year ended August 31, 2023, Lexaria Nicotine LLC has one perpetual non-exclusive global license issued to Altria Client Services LLC for DehydraTECH-Nicotine.

In January 2021, Lexaria's wholly-owned subsidiary, Lexaria CanPharm ULC sold its exclusive license rights and assigned all sublicenses for the use of DehydraTECH for vitamins and food and beverages infused with cannabinoids in concentrations greater than 0.3% THC. In 2019 we granted US licences for DehydraTECH enabled CBD products and also entered into a definitive agreement in the US for licensing DehydraTECH. In December of 2020, Lexaria sold our non-pharmaceutical THC-related assets held within our wholly owned subsidiary Lexaria CanPharm ULC to Hill Incorporated (formerly Hill Street Beverage Company Ltd. As Inc.) ("Hill Inc."). The remaining consideration outstanding for the acquisition of this license, is a part promissory note bearing an original value of CDN\$2 million which is reduced

quarterly based on royalty payments of 5% of the sale agreement, the Company transferred our THC licence contracts for manufacturers that sell, or intend to sell, THC gross proceeds received by Hill Inc. from DehydraTECH infused products in or sublicenses issued for the US and Canada, use of DehydraTECH.

In January of 2021 Lexaria Hemp Corp. holds the global rights exclusive license to DehydraTECH technology to make non-pharmaceutical products that contain over 0.3% THC and other psychoactive cannabinoids was sold to Hill Street Beverages Company Inc. Lexaria has retained the rights to use DehydraTECH with THC and other cannabinoids for pharmaceutical purposes. Lexaria's investigation of enhanced delivery characteristics of THC utilizing DehydraTECH technology is now focused on medical applications. Our study findings have demonstrated rapid delivery, increased overall THC delivery, and higher brain tissue delivery; all of which is consistent with the wants and needs of medicinal THC customers.

During the last fiscal quarter of 2022, Premier Wellness Science Co. Ltd., ("Premier") of Japan agreed to purchase the rights to DehydraTECH technology for the Japanese non-pharmaceutical market for use with CBD and hemp ingredients in oral liquid and non-liquid products, as well as for topical, hair-care, lip-care and cosmetics products. Exclusive rights are subject to two previously issued licenses for use of DehydraTECH in Japan, which remain valid. Lexaria will not be issuing any further licenses in Japan with cannabis that contains less than 0.3% THC for non-pharmaceutical cannabinoid products. As at the fiscal year ended August 31, 2023, Lexaria Hemp Corp. had the following active licenses:

- Non-exclusive license with Hill Inc. for all product formats globally;
- Non-exclusive license with Boldt Runners Corporation for oral pouch and oral mulch products in the US, South Africa, Europe and Japan;
- Non-exclusive license with Cannfections Group Inc. for chocolates and candy in Canada;
- Non-exclusive license with Bevnology LLC for all product formats globally excluding Japan, Korea and China;
- Exclusive perpetual license (other than the rights held by Hill Inc. and Boldt Runners Corporation) with Premier Anti-Aging Co. Ltd. (as assigned pursuant to its absorption merger with Premier Wellness Science Co. Ltd.) ("Premier") for all product formats in Japan.

10

## [Table of Contents](#)

In order for Premier, a cosmetics and skin-care company listed on the Tokyo Stock Exchange, to continue to retain ongoing exclusivity for DehydraTECH in Japan, it must take-over the negotiated minimum quarterly payments to Lexaria begin September 1, 2022 and which, during the first five years of the agreement, amount to a minimum of \$4.5m. \$4.5 million. The license for the Japanese market is perpetual assuming that Premier submits all required payments.

In addition to the minimum payments, Lexaria will also receive royalty revenue from DehydraTECH licensed product sales under the agreed terms. Total revenue is anticipated

Lexaria Pharmaceutical Corp. ("LEXX Pharma") holds the exclusive rights to be significantly greater license DehydraTECH in connection with all molecules other than cannabis and nicotine, with the minimum payments if Premier is capable exception that it can produce and sublicense rights to produce cannabis DehydraTECH products that required physician consultation and were intended to treat a therapeutic indication. On July 26, 2023 LEXX Pharma agreed to limit its exclusive rights to the use or sublicense of meeting its forecasted revenue targets. If Premier achieves even their worst-case projected penetration into the Japanese non-pharmaceutical CBD market, then based on their projections Lexaria could expect to receive annual payments of over \$5 million by the fifth year DehydraTECH for all of the contract. noted molecules solely in connection with products that were created with the intention to treat a therapeutic indication and required physician consultation. As of the fiscal year ended August 31, 2023 LEXX Pharma had the following active licenses:

- 13
- Non-exclusive license with AnodGen Bioceutical for pharmaceutical and medical product applications incorporating DehydraTECH-infused psychoactive cannabinoid powders and medical product applications incorporating DehydraTECH-infused non-psychoactive cannabinoid powders within Europe including the UK, Australia and New Zealand. This license is dormant and we are not aware if AnodGen will be capable of exercising their business plan.

[Table](#)

- Non-exclusive license with Valcon Medical A/S for bulk powder formats, as solid oral dosage forms such as powder-filled capsules, and compressed tablets, pills and oral melts, and in topical creams or lotions with or without patch integration that incorporate DehydraTECH-infused cannabinoids for the purposes of Contents medical product applications within Europe including the UK. Valcon has not communicated their intentions or timeline of development of products utilising this license.

Following rigorous product development and formula optimization Premier is expected to introduce the "Ko" brand containing Lexaria's DehydraTECH delivery technology in 2023. The product line focuses on the endocannabinoid system and circadian rhythm to support the health and wellness. It will contain CBD and other botanical extracts. Premier will create On July 26, 2023, Lexaria issued its own e-commerce infrastructure and digital marketing campaigns in collaboration with its parent company, Premier Anti-Aging Co., Ltd. Originally founded in 2009, Premier Anti-Aging Co. it is a large distributor and logistics supplier for cosmetics,

OTC pharmaceuticals and nutraceuticals to wholesalers and retailers. It has shipped more than 3.5 billion products in its most recent fiscal year comprised of over 50,000 products distributed to over 50,000 retail stores.

Lexaria, on June 8, 2022, awarded AnodGen Biocetical of Ireland a five-year, non-exclusive DehydraTECH license from its wholly-owned new subsidiary, Lexaria Pharmaceutical Nutraceutical Corp. The, an exclusive license is valid within Europe including to the UK, Australia and New Zealand, for pharmaceutical and medical product applications incorporating DehydraTECH-infused psychoactive cannabinoid powders and medical product applications incorporating DehydraTECH-infused non-psychoactive cannabinoid powders. AnodGen will pay royalty fees to Lexaria for all cannabinoid powders sold that utilize the DehydraTECH technology. AnodGen has the right to manufacture and sell these DehydraTECH-infused powders to third party companies for their own products that are designated by a national regulator as a medical product, drug, nutraceutical, pharmaceutical or biopharmaceutical, as applicable, under its cannabinoid product license rights. Consumer products purchased without physician or medical professional consultation are not permitted under the terms of this License. AnodGen is expected to have their new facility in Ireland fully operational in 2023

On June 21, 2022, the Company entered into two agreements with BevNology LLC. The first agreement is a manufacturing operating agreement that expands production capabilities for Lexaria's own growing list of business-to-business ("B2B") clientele interested in purchasing DehydraTECH-powered active ingredients for consumer packaged-goods. A new processing facility custom-built by BevNology increases and broadens their production capacity and is now serving Lexaria's B2B clients. Lexaria has installed specialized DehydraTECH manufacturing equipment into the new facility as it prepares for future growth in its B2B ingredient processing business.

The second agreement is a commercial license agreement that empowers BevNology to offer DehydraTECH products with active ingredients derived from hemp, including CBD under BevNology and partnered brands. For powdered DehydraTECH formulations this agreement is non-exclusive. For liquid DehydraTECH formulations, where BevNology has specialized skills and capabilities, the license is non-exclusive in most areas of the world but includes limited exclusivity rights in the United States only that require certain minimum fee payments in order to maintain those rights. Lexaria will receive royalties from BevNology as a result of their utilization of this license. The only countries specifically excluded under this license are Japan, the Republic of Korea, and the People's Republic of China.

On September 16, 2021, Lexaria Hemp entered into a 10-year license with GlobalCanna Inc. for the non-exclusive use of DehydraTECH for all molecules, excluding those associated with nicotine or cannabis, solely in multiple CBD infused products in Canada. Pursuant to association with non-pharmaceutical products. As at the terms of fiscal year ended August 31, 2023, Lexaria Nutraceutical Corp. had the agreement, GlobalCanna is required to pay minimum quarterly fees beginning in the quarter ended November 30, 2022, following active licenses:

- Non-exclusive license with BevNology LLC for various non-pharmaceutical product formats in the US;
- Exclusive, world-wide, perpetual and sublicenseable license with SulfoSyn Limited for the use of DehydraTECH with the molecule sulforaphane;

## Competition

The biopharmaceutical industry is characterized by intense competition and rapid innovation. We believe the key competitive factors that will affect the development and commercial success of any DehydraTECH enhanced product candidates are efficacy, safety, tolerability, reliability, convenience of use, price, and reimbursement. We face competition from segments of the pharmaceutical, biotechnology and other related markets that pursue the development of API delivery platforms. We anticipate facing intense and increasing competition as new more advanced API delivery technologies become available. There can be no assurance that our competitors are not currently developing, or will not in the future develop, technology that is equally or more effective or is more economically attractive than any of our current or any enhanced versions of DehydraTECH.

Our competitors may be able to develop other drug delivery platforms that are able to achieve similar or better results than DehydraTECH. Our competitors include major multinational pharmaceutical companies, established biotechnology companies, specialty pharmaceutical companies, universities, and other research institutions. Many of our competitors have substantially greater financial, technical, and other resources, such as larger research and development staff and experienced marketing and manufacturing organizations and well-established sales forces. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel therapeutics or to in-license novel therapeutics that could make DehydraTECH-enabled product candidates obsolete. Smaller or early-stage companies may also prove to be significant competitors, particularly as they develop novel approaches to oral or topical drug delivery that DehydraTECH is focused on.

Mergers and acquisitions in the biotechnology and pharmaceutical industries result in even greater concentration of resources and capital in our competitors. Our competitors, either alone or with collaborative partners, may succeed in developing, acquiring, or licensing API delivery technologies that are more effective, safer, more easily commercialized or less costly than DehydraTECH.

## [Table of Contents](#)

Competition in alternative health sectors and consumer products in the U.S. is fierce. We expect to encounter competitive threats from existing and new participants in the sector with competing technologies. Food supplements, organic foods, and health food markets are all well established and the Company and/or its licensees will face many challenges within these markets. Although PoViva Poviva Corp. has filed patent applications to protect intellectual property, there is no assurance that patents beyond those already issued will be granted nor that other firms may not file superior patents pending. Lexaria is aware of other competing technologies that claim to also enhance the bio absorption of bioactive molecules as DehydraTECH has repeatedly demonstrated through *in vitro* and *in vivo* scientific testing. By and large, these technologies are mostly forms of nanotechnology that generally claim to enable the formation of microencapsulated microemulsions of active ingredients. These technologies can enable exceptional water solubility of ingredients and can impart improved intestinal bio absorption as a result, but do not necessarily offer the breadth of performance and value enhancing benefits that Lexaria's DehydraTECH technology offers to its licensees.

## [Table of Contents](#)

Competition in nicotine, alternative nicotine delivery and nicotine cessation sectors in the U.S. is comprised of long-established entities, brands, and new technologies competing to create less harmful options. The sectors are complicated by the significant historical empirical data of older products or technologies versus the more limited published supporting data regarding the effects of new products or technologies. Due to the size of the sectors we expect to encounter competitive threats from existing participants and unknown new entrants. There is no assurance that other technologies already deployed, or in development, will not form the basis of product formats that competitors or consumers choose to utilize. It is also possible that historic delivery methods that have been in use and the familiarity with them may prevent adoption of products utilizing DehydraTECH in alternative delivery formats. Competing technologies or products may utilize known delivery formats or entirely new and unforecastable formats. Lexaria has demonstrated through scientific testing that DehydraTECH delivers nicotine rapidly and effectively through oral delivery. We believe that if we can educate and influence consumers to adopt a food-grade edible product format, and if US regulatory bodies authorize such format, we may be able to offer a competitively successful new product format that utilizes DehydraTECH.

While we are an early adopter providing technology to the cannabinoid sector, there are a large number of public companies that have claimed to be involved in the sector in some fashion, and an unknown number of private companies. Our current strategies may prove to be ineffective as the sector grows and matures, and if so, we will have to adapt quickly to changing sectoral circumstances. Accordingly, the Company intends to aggressively pursue technology out-licensing opportunities not only within the cannabinoids and nicotine sector where we are already active, but also across other sectors where DehydraTECH is patent allowed and/or pending, including opportunities in the vitamin and supplements sector and the pain relief sector.

Lexaria believes DehydraTECH offers a host of benefits beyond what competing technologies can offer, including superior oral palatability, a more appealing and all-natural ingredient compositional profile from an oral product and beverage formulation perspective, more predictable time of delivery into bloodstream and certain target tissues, and superior scalability and cost effectiveness from a manufacturing perspective. Lexaria believes that DehydraTECH is significantly distinguished from competing technologies in these respects and has a view of growing the breadth and number of licensees who will adopt DehydraTECH into their product offerings. Lexaria believes that these competitive advantages together with our wealth of scientific data showing noteworthy bio absorption enhancements with DehydraTECH constitute a compelling value proposition for its prospective licensees. We intend to continue to pursue license arrangements in the multiple bioactive ingredient sectors identified in its issued and pending patent applications.

## Compliance with Government Regulation

More The U.S. Farm Bill, was passed in December 2018, and removed certain restrictions on advertising, marketing, banking, and other financial services as well as allowing interstate commerce for hemp and hemp-derived CBD. It also facilitated the removal of barriers for intellectual property protections under federal law such as patents and trademarks. However, the Farm Bill preserves the FDA's authority to regulate products that contain hemp-derived CBD and to date the FDA has not issued an approval for any CBD products, other than one cannabis-derived and three cannabis-related drug products. Accordingly, the ambiguity regarding the incorporation of CBD into ingested and topical products has had significant impacts on the industry segments to which we license DehydraTECH and could potentially change some of the regulatory compliance risks that may affect our business.

As well, while more than thirty-nine states in the U.S. have passed some form of legislation related to that state's permission to grow, cultivate, sell, or use marijuana and/or CBD for medical purposes or for recreational use. Legislation use, legislation is not necessarily harmonious between states and in most circumstances, it is not legal to transport cannabis-related products across state lines.

Lexaria legally conducts R&D on cannabis ingredients in our Canadian federally licensed laboratory in compliance with all federal and local Canadian laws. We abide by U.S. federal law that provides for certain exemptions for agricultural hemp and certain by-products to be manufactured and sold in the U.S. DehydraTECH is only licensed to those companies that have met and comply with state regulations for the sale and distribution of cannabis related products in their licensed operating territories.

DehydraTECH has applications in completely separate sectors such as vitamins, CBD for applications under pursuit for medical applications registered with the FDA, and nicotine. We are continuing formulation development for research and validation purposes in each of these areas. We have a formal relationship with the Altria Group and have conducted R&D with that company related to the possible development of nicotine oral products. If we do enter any of these sectors, we may be exposed to and of necessity may have to comply with all local, state, and federal regulations in each of those sectors. As a result of the possibility of Lexaria being involved in a number of disparate business sectors, compliance with government regulations could require significant resources and expertise from our Company.

The U.S. Farm Bill, passed in December 2018, and the ambiguity regarding the incorporation of CBD into ingested and topical products has had significant impacts on the industry segments that we operate in. This could potentially change some of the regulatory compliance risks that may affect our business. The bill includes lifting restrictions on advertising, marketing, banking, and other financial services as well as allowing interstate commerce for hemp and hemp-derived CBD. It is also facilitating the removal of barriers for intellectual property protections under federal law such as patents and trademarks, as well as several other measures that may positively impact these industry segments overall. The effects the Bill may have on other regulatory bodies and their regulations will require ongoing monitoring to determine the timing and outcome of any revisions.

---

15

[Table of Contents](#)

#### Employees and Contractors

We utilize employees and consultants for the Company's intellectual property development and licensing and business operations. Our Company relies on the business and technical experience of our existing management, on the technical abilities of consulting experts, and on the technical and operational abilities of its operating partner companies to identify and evaluate business opportunities. We currently have seven five full time salaried employees under contract and may add personnel to expand our internal R&D capacity. None of our employees are represented by a labor union and we consider our employee relations to be good. We outsource virtually all analytical work to independent third-party laboratories located in the USA, Canada, and Europe.

---

12

[Table of Contents](#)

Our executive personnel are entitled to incentives as set by our Compensation Committee. All executives, directors, employees and select contractors are eligible for participation in the Company's equity incentive plan, the primary purpose of which is to attract, retain and motivate our team members by granting stock-based compensation awards.

#### Subsidiaries

Lexaria Bioscience Corp. has the following wholly owned subsidiaries: Lexaria CanPharm ULC, Lexaria CanPharm Holding Corp., PoViva Corp., Lexaria Hemp Corp., Kelowna Management Services Corp. and Lexaria Pharmaceutical Corp.,

- Lexaria CanPharm ULC (which is wholly-owned by Lexaria CanPharm Holding Corp.),
- Lexaria CanPharm Holding Corp.,
- Poviva Corp.,
- Lexaria Hemp Corp.,
- Kelowna Management Services Corp.,
- Lexaria Nutraceutical Corp. and
- Lexaria Pharmaceutical Corp.,

and our majority owned (83.333%) subsidiary Lexaria Nicotine LLC. Altria Ventures Inc. owns a 16.667% equity interest along with certain other rights in Lexaria Nicotine LLC.

## Available Information

Lexaria's common stock is quoted on the Nasdaq under the symbol "LEXX" and certain warrants are quoted under LEXXW. We file annual, quarterly, and current reports, proxy statements and other information with the U.S. Securities Exchange Commission (the "SEC"). These filings are available to the public on the internet at the SEC's website at <http://www.sec.gov>. Lexaria Bioscience Corp. is a British Columbia based reporting issuer in Canada and as such, we are required to file certain information and documents at [www.sedar.com](http://www.sedar.com) [www.sedarplus.ca](http://www.sedarplus.ca)

Our corporate website is [www.lexariabioscience.com](http://www.lexariabioscience.com). This website address is not intended to function as a hyperlink and the information contained on our website is not intended to be a part of this Report. Report. We make available free of charge on <https://www.lexariabioscience.com/investors/regulatory-filings/> our annual, quarterly, and current reports, and amendments to those reports if any, as soon as reasonably practical after we electronically file such material with, or furnish it to, the SEC. Further details on our research programs are provided in our 2020 2022 and 2021 2023 Form 10-K filings. We may, from time to time, provide important disclosures to investors by posting them in the Investor Relations section of our website.

The address of our principal executive office and research laboratory is #100-740 McCurdy Road, Kelowna, British Columbia, Canada V1X 2P7. We maintain our registered agent's office and our U.S. business office at Nevada Agency and Transfer Company, 50 West Liberty, Suite 880, Reno, Nevada 89501. Our telephone number is (755) 322-0626, (250) 765-6424.

## Item 1A. Risk Factors

Lexaria operates in the intensely competitive biotechnology industry and is subject to numerous risks. Investment in this sector involves a high degree of risk. You should carefully consider the risks described below as well as other information in this report. The occurrence of any of the events, circumstances or developments described below could materially and adversely effect affect our business, financial conditions, results of operations and our future prospects. Our actual results could differ from those in forward looking statements as a result of numerous factors including the risks described below.

### A. Risks Associated with our Business and Industry

***DehydraTECH-enabled pharmaceutical products may not successfully proceed to commercialization.***

The advancement of DehydraTECH-enabled pharmaceutical products will be subject to successful completion of multi-phase testing under significant regulatory requirements and testing protocols, such as those required by the US Food and Drug Administration (FDA) and comparable foreign regulators. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier studies. It is possible we could face similar setbacks. The effects of such reversions could cause significant delays or abandonment of testing with negative effect to our business through financial loss, industry credibility and/or a temporary or permanent decline in valuation of our Company.

16 13

[Table of Contents](#)

***If we are unable to retain and hire qualified personnel, we may not be able to implement our business plan successfully.***

In developing DehydraTECH, we rely upon our employees, consultants, contractors, and collaborators. Our current business prospects are dependent on the principal members of our executive team, the loss of whose services could make it difficult for us to manage our business successfully and to achieve our business objectives. The loss of the services of any key research, product development, regulatory and technical personnel, or our inability to hire new personnel with the requisite skills, could restrict our ability to carry out our R&D programs and/or develop our product candidates. Each position in a small company carries relatively greater duties and responsibilities than that position would in a larger organization. The loss of any of our key personnel could result in severe disruptions to our operations and business plans. Our ability to identify, attract, integrate, and retain additional qualified key personnel is critical to our success. Competition for skilled research, product development, regulatory and technical personnel is intense, and we may not be able to recruit and retain the personnel we need.



*We face substantial competition, which may result in others discovering, developing and/or commercializing technology or products similar to ours before or more successfully than us.*

Our commercial and/or licensing opportunities may be reduced or potentially eliminated if our competitors develop and commercialize products utilizing a similar technology that compete directly with those incorporating DehydraTECH. Significant delays in the development of our product candidates could allow competitors to bring products to market before us which may impair the ability to commercialize our product candidates. This could result in reduced sales and negative pricing pressure on our technology lessening our ability to increase or even sustain revenues and causing deterioration of market prospects.

Our competitors could also develop drugs that are more effective, more widely used and less expensive than our technology supports. They may also be more successful in manufacturing and marketing their products. Competitors could acquire regulatory approval of their products before we are able to obtain patent protection or other intellectual property rights, limiting our ability to license our respective patents and/or develop or commercialize a product candidate. These appreciable advantages could render our product candidates non-competitive or obsolete before we can recover the expenses of research, development, and commercialization.

Our competition includes pharmaceutical and biotechnology companies, educational institutions, and research foundations. They may have substantially greater capital resources, research and development workforce and facilities and superior marketing experience than Lexaria. They may be able to respond more rapidly to new regulations and/or devote greater resources to the development and promotion of their business model. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, and in acquiring technologies and technology licenses competitive to our programs or of potential use to our business.

Early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors and could increase their ability to rapidly gain market share.

As a result of these factors, management cannot be certain that the Company will be able to compete against current or future competitors or that competitive pressure will not seriously harm our business.

*Any failure in protecting our intellectual property may have a negative impact adverse effect on our ability to develop and licence DehydraTECH.*

Because patents involve complex legal and factual questions, the issuance, scope, validity, and enforceability of patents cannot be predicted with certainty. Some of our patent pending applications will not be granted as patents. Even if patents are issued, they may not be granted with claims of sufficient breadth to protect DehydraTECH technology or may not provide us with a competitive advantage over other products or technologies. Issued patents may be challenged, invalidated, or circumvented. If they are invalidated or found to be unenforceable, we could lose the ability to exclude others from making, using, or selling the inventions claimed. An issued patent does not give us the automatic right to use the patented technology or commercialize a product using the technology. Third parties may have blocking patents that could be used to prevent us from developing our products, selling our products, or commercializing our DehydraTECH technology. Others may also independently develop products or technologies similar to those that we have developed or may reverse engineer or discover our trade secrets through proper means.

*Technological R&D in the bioscience industry involves a lengthy, expensive process with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete our studies or trials.*

We could encounter numerous unintended and unforeseen events including but not limited to the following:

- regulators or institutional review boards ("IRBs"), or ethics committees may not authorize us or our investigators to commence a study or trial at a prospective trial site. There is no assurance that we will be able to satisfy their approval conditions in a timely fashion if at all, whether due to financial or other unforeseen constraints;
- the ability or failure to reach acceptable terms with prospective trial sites and contract research organizations ("CROs"). These terms can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

## Table of Contents

- the IRB may disagree with our design or change the requirements for approval even after it has incorporated their review and comments;
- authorities may impose a hold on or suspend a program due to any number of factors, including a request for further information or other administrative actions, results of competitors programs, noncompliance with changing regulatory requirements or a finding that the participants are being exposed to unacceptable health risk or changes in governmental regulations;

## Table of Contents

- studies or trials of various APIs may produce negative or inconclusive results. We may decide or regulators may require us to conduct additional studies or trials. We may decide to abandon development programs related to those APIs;
- the number of participants required may be larger than anticipated. Participants may drop out or fail to return for follow-up at a higher rate than we anticipate. Initial enrolment may take longer than scheduled. We may be unable to recruit a sufficient number of suitable participants;
- the participants and sites in our studies or trials may not comply with required protocols rendering the results insufficient or uninterpretable;
- the cost of studies or trials of an API may be greater than anticipated and we may lack adequate funding to continue;
- any changes in regulatory requirements and guidance that require amending or submitting new protocols;
- regulators may require the submission of additional data or impose other requirements before granting permission to proceed.

**Our R&D costs will increase with delays in testing and/or regulatory approvals. We do not know whether any of our projected studies or trials will begin as planned, will need to be restructured once commenced, or will be completed on schedule, or at all. Any delays in our development programs could significantly impact our share value, business prospects, financial condition, and results of operations.**

***If we are unable to obtain and maintain sufficient patent protection, or if the scope of the patent protection is not sufficiently broad, our competitors could develop technology similar to ours.***

**We may not be able to effectively enforce our intellectual property rights throughout the world. Our ability to protect and enforce our intellectual property rights may be adversely affected by unforeseen changes in foreign intellectual property laws. Patent laws of some foreign countries do not provide protection to the same extent as the laws of the United States. These factors could make it difficult for us to stop the infringement of our patents or the misappropriation of our intellectual property rights. Legal actions to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and resources from other aspects of our business. We cannot ensure that we will be able to initiate or maintain legal efforts in all jurisdictions which could limit the markets for our technology and reduce possible future revenues.**

***We are dependent on the services of third parties and unsatisfactory performance will negatively affect our Company.***

***We rely on third parties to conduct, supervise, and monitor our R&D programs. Third-party service providers are not our employees, and except for remedies available to us under contract, we cannot control whether or not they devote sufficient time, skill, and resources to our programs. We remain responsible for ensuring that each of our programs are conducted in accordance with the applicable protocol, legal, regulatory and scientific standards.***

***If third parties do not successfully carry out their contractual duties in meeting expected deadlines or not conducting our R&D programs or preclinical studies as prescribed, if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our protocols, regulatory requirements or for other reasons, we or our collaborators may be subject to regulatory enforcement or other legal actions.***

***Resultant data generated in our preclinical programs may be deemed unreliable and our studies and trials may need to be repeated, extended, delayed, or terminated. We may be delayed in or unable to obtain marketing approvals for our product candidates or to successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.***

***We also rely on third party suppliers and manufacturers to provide us with the facilities, materials, and services to manufacture our DehydraTECH compounds for our research programs and our B2B customers. It is possible that such third parties may not successfully carry out their contractual***



*obligations, meet expected deadlines, adhere to our protocols, or comply with regulatory requirements. This could result in the lost revenue or program delays. Demand for our services may be adversely affected if customers lose confidence in the quality of our services or the industry's practices. Adverse publicity may discourage businesses from contracting our services and could have a material adverse effect on future revenue generation.*

*Agreements with third parties conducting services on our behalf might terminate for a variety of reasons, including a failure to perform by the third parties. If any of these terminate, we may be unable to enter into arrangements with alternative providers or to do so on commercially reasonable terms. Switching or adding additional third parties involve increased management time, focus, regulatory approvals and/or additional cost. Any delays in our manufacturing capabilities or research studies may have a material adverse impact on our business, financial condition and prospects.*

[Table of Contents](#)

***Any failure to prevent or mitigate security breaches and improper access to or disclosure of our data or our user data could result in the loss or misuse of such data, which could harm our business and reputation and diminish our competitive position***

*Awareness and sensitivity to personal data breaches and cyber security threats is at an all-time high. Our computer systems and those of our contractors and consultants are vulnerable to damage from unauthorized access, computer viruses, telecommunications and electrical failures, and natural disasters. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our R&D programs. We depend on digital technologies for the successful operation of our business, including corporate email communications to and from employees, licensees, consultants and third-party providers, collection, use and retention of investor data, security systems with respect to our Health Canada licensed laboratory and maintenance of confidential information.*

*As part of our business model, we collect, retain, and transmit confidential information over public networks. We may be vulnerable to targeted or random personal data or security breaches, acts of vandalism, computer malware, misplaced or lost data, programming and/or human errors, or other similar events. Any misappropriation of our internal confidential or personal information gathered, stored or used by us, be it intentional or accidental, could have a material impact on the operation of our business, including severely damaging our reputation and our relationships with licensees, employees and investors. We may incur further significant costs implementing additional security measures to protect against new or enhanced data security or privacy threats, or to comply with current and new international, federal, and state laws governing the unauthorized disclosure of confidential and personal information which are continuously being enacted. We could also experience loss of revenues resulting from unauthorized use of proprietary information including our intellectual property. We could also face sizable fines, significant breach containment and notification costs to supervisory authorities and the affected data subjects, and increased litigation as a result of cyber security or personal data breaches.*

***We may be subject to claims that our employees, consultants, or independent contractors have wrongfully used or disclosed alleged trade secrets.***

***We employ, and may employ in the future, individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. We could be subject to claims that the Company or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Successful claims could result in our loss of valuable intellectual property rights or personnel in addition to suffering monetary damages. Even if we are successful in any litigation, it could result in substantial costs and be a distraction to management with an adverse impact on our business.***

***Risks related to the effects of COVID-19***

The outbreak of the coronavirus (COVID-19) has evolved into a global pandemic. The extent to which the virus impacts our business and operating results will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning the virus, its variants, and the actions to contain the coronavirus or treat its impact, among others.

With the continued spread of the virus, our business operations could be interrupted or delayed. It is possible that our R&D programs could be adversely affected by the restrictions imposed during the pandemic. Travel restrictions, lock-down quarantines or other such limitations may hamper our ability to conduct our R & D programs. In some of our programs, particularly our human studies, participant recruitment and enrolment, participant dosing, distribution of results, study monitoring and data analysis may be paused or delayed due to the effects that the pandemic has in different localities. If the virus continues to spread, some participants and clinical investigators may not be able to comply with

clinical trial protocols. We currently utilize third parties to conduct our R&D programs and in the production of our B2B customers' products. These relationships could be adversely impacted by any future covid-related restrictions. It is possible that our supply chain may be disrupted, limiting our ability to manufacture products for our R&D operations or for our B2B customers.

The spread of COVID-19 and its variants has caused a broad global impact which could have a material economic effect on our business. While the potential economic impact brought by and the duration of the pandemic may be difficult to assess or predict, it has already caused, and is likely to result in further significant disruption of global financial markets, which may reduce our ability to access capital either on favorable terms or at all. Inflation and recession or other sustained adverse economic events resulting from the pandemic could materially and adversely affect our business and the market for or value of our common stock.

---

19

[Table of Contents](#)

**B. Risks Associated with our Financial Condition**

*Without additional financing to develop our business plan, our business may fail.*

We have generated only minimal revenue from our business and anticipate that we will need to raise further financing to conduct and grow our business. We can provide no assurance that we will be able to secure such financing. The most likely source of future funds presently available to us is through the sale of equity capital. Any sale of share capital will result in dilution to existing security-holders.

*The longer-term growth of our business depends on our ability to expand our portfolio of patents and industry segments where DehydraTECH is demonstrably applicable, which may require substantial financial resources and may ultimately be unsuccessful.*

There can be no assurance that we will achieve significant revenues or profitable operations or will generate adequate funds to continue our intellectual property development. Many factors, such as competition, patent protection, appropriate regulatory approvals, availability of personnel, and market acceptance of our services can influence the revenue and profitability potential. As a result, we may experience material fluctuations in future operating results on a quarterly and annual basis which could materially affect our business, financial condition, and operating results.

---

16

[Table of Contents](#)

The R&D programs required to evidence that DehydraTECH's demonstrated efficacy also works with other APIs and molecules to develop the evidence may ultimately be unsuccessful. We cannot be certain that our overall business model within any particular sector will ever come to fruition, and if they do, may not generate meaningful profits. We may not recover all or any portion of our capital investment in our research and technology development, marketing, or other aspects of the business.

*We may enter into collaborations with third parties for the development and commercialization of our product candidates. If we fail to enter into such collaborations, or such collaborations are not successful, we may not be able to capitalize on the market potential of our product candidates.*

*We face significant competition in seeking appropriate partners. Our ability to reach a definitive agreement in any collaboration depends in part on our assessment of their resources, expertise and intent, the terms and conditions of the proposed agreement and the evaluation of numerous factors by the proposed collaborator. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.*

*If we are unable to reach agreements with suitable collaborators on a timely basis, on acceptable terms, or at all, we may have to curtail the development of a product candidate, reduce or delay our development programs. This might delay our potential development schedule or reduce the scope of research activities or increase our expenditures. We may have to undertake further discovery or preclinical development activities at our own expense. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development activities, we may not be able to further develop our product candidates or continue to develop our product candidates and our business may be materially and adversely affected.*

***Future collaborations may involve the following risks whereby collaborators may:***

- not perform their obligations as expected or terminated an agreement for their convenience. If terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable product candidates. We could face difficulty in attracting new collaborators. The markets' perception of our business could be adversely affected.
- have significant discretion in determining the efforts and resources that they will apply. We would have limited control over the amount and timing of resources. They may provide insufficient funding for product development of our selected targets.
- have us repeat or conduct new discovery and preclinical development or delay, stop or abandon discovery and preclinical development of a product candidate.
- view product candidates discovered in collaboration as competitive with their existing product candidates or products. They may cease to devote resources to the development of collaborative product candidates.
- independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if they conclude that competitive products are more likely to be successfully developed than our products.
- use their proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property.
- become involved in a business combination which, subject to its contractual obligations, might detract from or terminate the development of any of our product candidates.

***C. Risk Associated with Current Regulatory Environments***

***Our product candidates are in an early stage of development and may fail or experience significant delays or may never advance to the clinical stage, which may materially and adversely impact our business.***

All of our R&D programs are in the preclinical development stage and our future success heavily depends on the successful development of our DehydraTECH product candidates which may never occur. These product candidates could be delayed, not advance into the clinic, or unexpectedly fail at any stage of development. Before we can commence clinical trials for a product candidate, we must conduct extensive preclinical and other non-clinical tests in order to support an investigational new drug ("IND") application, including IND-enabling good laboratory practice toxicology studies. Preclinical studies and clinical trials are expensive, difficult to design and can take many years. There is no assurance that we will be able to successfully develop our product candidates, and we may focus our efforts and resources on product candidates that may prove to be unsuccessful.

---

20

[Table of Contents](#)

We cannot be certain of the outcome of preclinical testing and clinical studies and results from these studies may not predict the results that will be obtained in later phase trials of our product candidates. Even if we are able to complete our preclinical studies and planned clinical trials in line with our projected timelines, results from such studies and trials may be not replicated in subsequent preclinical studies or clinical trial results. Additionally, such studies may be delayed due to events beyond our control. As a result, we cannot guarantee that we will be able to submit INDs, or similar applications, within our projected timelines, if at all, or that the FDA, or similar regulatory authorities, will allow us to commence clinical trials.

---

17

[Table of Contents](#)

***Pharmaceutical products incorporating DehydraTECH has never been approved for the treatment of disease.***

In order to commercialize a product that utilizes DehydraTECH for the treatment of any disease, we and/or our commercial partner must obtain regulatory product approvals for treatment of a particular indication. Satisfying regulatory requirements is an expensive process that typically takes many years. There are compliance requirements covering R&D, testing, manufacturing, quality control, labelling, and promotion of drugs for human use. To obtain necessary regulatory approvals we must complete clinical trials demonstrating that our product is safe and effective for a particular indication. There can be no assurance that any product enhanced by DehydraTECH will be proven to be safe and effective, that clinical

trials will demonstrate the necessary safety and effectiveness of the product candidates, or that we will be successful in obtaining regulatory approval for any treatment developed, even if such safety and effectiveness are demonstrated.

We may encounter obstacles in obtaining regulatory approval from the FDA or other international regulatory organizations during clinical trials including:

- clinical trials may not yield sufficiently conclusive results for regulatory agencies to approve the use of DehydraTECH;
- DehydraTECH enhanced formulations may fail to be more effective than current therapies, or to be effective at all;
- DehydraTECH enhanced formulations may have adverse side effects, which could cause them to be delayed or precluded from receiving regulatory approval or otherwise expose us to significant commercial and legal risks;
- it may take longer than expected to determine whether or not a treatment is effective;
- patients involved in the clinical trials may suffer severe adverse side effects even up to death, whether as a result of treatment with DehydraTECH enhanced formulations, the withholding of such treatment, or other reasons whether within or outside of our control;
- patients enrolled in the clinical trials may not have the characteristics necessary to obtain regulatory approval for a particular indication or patient population;
- failure to obtain and/or maintain, any required governmental approvals;
- if approval for commercialization is granted, it is possible the authorized use will be more limited than is necessary for commercial success, or that approval may be conditioned on completion of further clinical trials or other activities, which will cause a substantial increase in costs;
- if granted, approval may be withdrawn or limited if problems with DehydraTECH enhanced formulations emerge or are suggested by the data arising from their use or if there is a change in law or regulation.

Any success achieved at a given stage of the clinical trials does not guarantee that the future achievement of success at any subsequent stage, including without limitation, final FDA approval.

Delays or rejections in the regulatory approval process because of additional government regulation resulting from future legislation or administrative action, or from changes in the policies of the FDA or other regulatory bodies during the period of product development, clinical trials, or regulatory review may occur. Failure to comply with applicable regulatory requirements may result in criminal prosecution, civil penalties, recall or seizure of products, total or partial suspension of production, or an injunction preventing certain activity, as well as other regulatory action against our product candidates or our Company.

We currently have no commercial pharmaceutical products and therefore generate no revenue from pharmaceutical products and may never be able to develop marketable pharmaceutical products. We have no experience in filing the applications necessary to obtain approval and expect that we will need to rely on CROs and regulatory consultants to assist us with this process. Regulatory approval also requires the submission about the product manufacturing process and the inspection of the manufacturing facilities. Our success is dependent on our or a third parties' ability to successfully navigate the risks and obstacles associated with obtaining FDA clearance for any DehydraTECH enhanced formulated product.

#### [Table of Contents](#)

*Pharmaceutical products using DehydraTECH with CBD as an API have never been approved for the treatment of any disease.*

To date the FDA has approved only limited use of cannabinoids for the treatment of any disease or condition. The FDA has approved one cannabinoid-derived drug product for the treatment of seizures associated with Lennox-Gastaut syndrome and Dravet syndrome and three synthetic cannabinoid-related drug products for the treatment of nausea and vomiting caused by cancer chemotherapy. While we expect any product candidates that we develop will be regulated as a new drug under the Federal Food, Drug, and Cosmetic Act, the FDA could decide to regulate them or any other products incorporating DehydraTECH under a different regulatory regime. The lack of policies, practices or guidelines may hinder or slow review by the FDA of any regulatory filings that we may submit. The FDA may respond to these submissions by defining requirements that we may not have anticipated.

*Regulation of non-pharmaceutical hemp-based CBD products is evolving.*

We cannot predict the nature of any future laws, regulations, interpretations, or their application to non-pharmaceutical hemp-based CBD. It is probable that regulations may be enacted that will be directly applicable to our business. Violations, alleged or otherwise, could disrupt our business or the business of our licensees. Any compliance deficiencies with future government regulation could increase our operating costs.

[Table of Contents](#)

In the US, interstate shipment of hemp-derived non-pharmaceutical CBD from one state to another is legal only where both states have laws and regulations that allow for the production and sale of such products and that qualify under the Farm Bill. The marketing and sale of DehydraTECH products containing hemp-derived non-pharmaceutical CBD is limited by such factors and is restricted to such states. A repeal or adverse amendment of laws and regulations that are now favorable to the distribution, marketing, and sale of finished products of hemp-derived CBD our licensees intend to sell could significantly limit, restrict, or prevent us from generating revenue related to these DehydraTECH enabled non-pharmaceutical products. Any such repeal or adverse amendment of now favorable laws and regulations could have an adverse impact on our business plan with respect to such revenues.

*Controlled substance legislation differs between localities. Legislation in certain jurisdictions may restrict or limit our ability to develop and commercialize products using DehydraTECH.*

We currently have licensees who produce hemp-derived non-pharmaceutical CBD products. The Farm Bill delegates the authority to the states to regulate and limit the production of these products within their territories. Many states now have laws and regulations that allow for the production and sale of hemp-derived CBD products. We can offer no assurance that these state laws will not be repealed or amended which could render these products illegal. Such actions would adversely impact our product revenue and royalties derived from DehydraTECH-enabled CBD products.

#### D. Risks Associated with Securities Markets and Ownership of our Common Stock

*The trading price of the shares of our common stock could be highly volatile and as such investors could incur substantial losses.*

Prospects for companies in the biotechnology industry may be regarded generally as uncertain given the nature of the industry and, accordingly, investments in biotechnology companies should be regarded as speculative. We have experienced erratic share price and trading volume movement of our common stock which could be influenced by any number of factors including those extraneous to our operating performance and business prospects.

*Our by-laws do not contain anti-takeover provisions, which could result in a change of our executive management and directors if there is a take-over of our Company.*

We do not currently have a shareholder rights plan or any anti-takeover provisions in our by-laws. Without any anti-takeover provisions, there is no deterrent for an unwanted take-over of our Company. This could result in a change of management, business strategy, a lower enterprise valuation than anticipated and/or dilution of current shareholdings.

*We do not intend to pay any dividends on our shares.*

We have not declared or paid any dividends on our shares since inception. We intend to retain any earnings to implement our business plan. Investors seeking dividend income should not invest in our shares.

*Purchasers of our shares may incur dilution.*

We are authorized to issue up to 220,000,000 shares. **Our Pursuant to Nevada corporate law, our** Board has the authority to approve additional share issuances, and to determine the rights, preferences, and privileges of such shares, without consent of any of our **stockholders. stockholders,**

though pursuant to Nasdaq Rules, stockholder approval may be required for certain of these actions. We may issue shares in the future to raise working capital resulting in shareholders dilution in the ownership of our Company.

22

## [Table of Contents](#)

We are a “smaller reporting company” under the SEC’s disclosure rules and have elected to comply with the reduced disclosure requirements applicable to smaller reporting companies.

As a smaller reporting company, we have elected to adopt the accommodations for scaled-back disclosure in our SEC filings, resulting in less information about our Company being available compared to other public companies. We are also a non-accelerated filer and are not required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002. Our internal controls over financial reporting will not receive the level of review provided by the process relating to the auditor attestation included in annual reports of issuers that are subject to these requirements.

We cannot predict if investors will find our common shares less attractive because we are not required to comply with more robust disclosure or the auditor attestation requirements. If investors find our common shares less attractive as a result, there may be a less active trading market for our common shares and trading prices may be negatively affected.

### Item 1B. Unresolved Staff Comments

None.

19

## [Table of Contents](#)

### Item 2. Properties

#### *Description of Property*

The Company headquarters is located in Kelowna, British Columbia Canada in a leased facility with 2,250 square feet of office space to accommodate our finance and administrative functions and as well as a Health Canada approved research lab of approximately 1,000 square feet accommodating our in-house research and development team. The current lease commenced in November 2019 and expires November 2023. The term of the lease can be has been extended for another an additional five years subject to certain terms and conditions, expiring on November 14, 2028. We believe our current facilities are suitable and adequate for the Company’s current operational requirements.

### Item 3. Legal Proceedings

We are not party to any material, pending or existing legal proceedings against our Company or its subsidiaries nor are we involved as a plaintiff in any other material proceeding or pending litigation. There are no other proceedings in which any of our directors, executive officers, or affiliates, or any registered or beneficial stockholder, is an adverse party or has a material interest adverse to Lexaria or any of its subsidiaries.

### Item 4. Mine Safety Disclosures

Not Applicable.

23 20

## [Table of Contents](#)

## PART II

### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

On January 12, 2021, the Company's common stock and warrants began trading on the National Association of Securities Dealers Automated Quotations Stock Market ("Nasdaq") under the trading symbols "LEXX" and "LEXXW", respectively. Prior to this date the Company's common stock was quoted on the OTCQX under the symbol "LXRP." Our common shares were previously quoted on the Canadian Securities Exchange ("CSE") under the symbol "LXX" until July 8, 2021.

The stock market in general has experienced extreme stock price fluctuations in the past few years. In some cases, these fluctuations have been unrelated to the operating performance of the affected companies. Many companies have experienced dramatic volatility in trading volumes and the market prices of their common stock. The Company believes that several factors, both within and outside of its' control, could cause the daily volumes and price of the Company's common stock to fluctuate. There were 5,950,998 8,091,650 common shares issued and outstanding as of August 31, 2022 (5,726,699 August 31, 2023 (5,950,998 at August 31, 2021 August 31, 2022). As of November 25, 2022 November 20, 2023, there were approximately 44 35 shareholders of record.

#### *Dividend Policy*

We have never declared or paid any dividends on our capital stock. Our current policy is to retain earnings, if any, for use in our operations and in the development of our business. As a result, we anticipate that only appreciation of the price of our common stock, if any, will provide a return to investors for at least the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our Board of Directors ("our Board") and will depend on, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our Board may deem relevant.

#### *Recent Sales of Unregistered Securities*

During the year ended August 31, 2022 August 31, 2023, the Company issued 224,299 did not issue any restricted common shares with a value of \$1.2m as required by a consulting contract. shares.

#### *Warrants*

There were no warrants granted or exercised during During the year ended August 31, 2022 August 31, 2023, 2,106,000 warrants were issued, none were exercised, and 7,500 were cancelled. The 2,106,00 warrants issued have an exercise price of \$0.95 and are exercisable until May 11, 2028.

#### *Equity Compensation Plan Information*

We have no long-term incentive plans other than the equity incentive plan described below.

24 21

#### [Table of Contents](#)

#### Equity Incentive Plan

Securities authorized for issuance under equity compensation plans	Securities authorized for issuance under equity compensation plans	Securities authorized for issuance under equity compensation plans
--	--	--

Plan Category	Number of securities to be based upon exercise of outstanding options, warrants and rights	Weighed-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plan [excluding securities reflected in column (a)]	Number of securities to be based upon exercise of outstanding options, warrants and rights	Weighed-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plan [excluding securities reflected in column (a)]
	(a)	(b)	(c)	(a)	(b)	(c)
Equity compensation plans not approved by shareholders	Nil	Nil	Nil	Nil	Nil	Nil
Equity compensation plans approved by shareholders	206,170	7.36	304,263	446,936	\$ 3.36	63,497
<b>Total</b>	<b>206,170</b>	<b>7.36</b>	<b>304,263</b>	<b>446,936</b>	<b>\$ 3.36</b>	<b>63,497</b>

All future option issuances shall be made under the Equity Incentive Plan. Our Board may amend, suspend, or terminate this Plan or any portion thereof subject to the approval of any requisite regulatory authority. No such amendment, suspension or termination shall alter or impair any outstanding unexercised Options or any rights without the consent of such Participant. If this Plan is suspended or terminated, the provisions of this Plan and any administrative guidelines, rules and regulations relating to this Plan shall continue in effect for the duration of such time as any Option remains outstanding.

On May 9, 2023, the Company's shareholders approved two proposals to amend the Equity Incentive Plan. The approval of the first proposal authorized the Board to amend the Equity Incentive Plan by increasing the maximum number of shares issuable to 10% of the issued share capital as at May 31, 2023 and the second proposal authorized the Board to amend the Equity Incentive Plan to allow for an evergreen formula whereby on January 1 of each calendar year the number of shares issuable pursuant to the Equity Incentive Plan may be increased, at the discretion of the Board, to 10% of the issued share capital as at December 31 of the preceding year. As the Company still has the ability to issue options for the purchase of up to 109,497 common shares under its Equity Incentive Plan (being the 63,497 shares issuable as at fiscal year end and an additional 46,000 shares issuable due to options which expired on September 6, 2023), it has not yet filed a Form S-8 Registration Statement for the registration of the additional shares issuable pursuant to the approved proposals.

## [Table of Contents](#)

### Convertible Securities

Pursuant to our Equity Incentive Plan, during the year ended August 31, 2022, August 31, 2023, we granted stock options to directors, officers, employees, and consultants that enable the option holders to purchase 222,000 69,600 common shares of the Company. Options were granted at prices of: 81,800 3,400 at \$6.23, 36,700 \$3.04, 41,200 at \$3.39, \$1.96, 5,000 at \$2.73 and 103,500 20,000 at \$2.91 \$0.87 and have five year terms. The 198,500 69,600 options granted and vested during the year had a fair value of \$663,398 \$89,057 using the Black Scholes valuation method and the non-cash expense was included in consulting and salaries compensation. Further, during the year ended August 31, 2023, 267,969 previously granted options with exercise prices ranging from \$9.60 to \$4.80 were repriced to \$3.00 following shareholder approval obtained at the Company's annual shareholder meeting held on May 9, 2023. See Note 16.

### Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.



## Item 6. Selected Financial Data

As a "Smaller Reporting Company", this Item and the related disclosure is not required.

## Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

### Overview

*This discussion and analysis contain forward-looking statements that involve not only risks and uncertainties but also changes in condition, significance, value and other factors as described in "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Our actual results of operations, performance, financial position and business prospects and opportunities for this fiscal year and the periods that follow could differ materially from those expressed in or implied by forward-looking statements. This discussion and analysis should be read in conjunction with our consolidated financial statements and the accompanying notes related thereto that appear in this Report.*

25

### Table of Contents

The following management's discussion and analysis of financial condition and results of operations ("MD&A") is provided to enhance the readers understanding of our results of operations and financial condition for the year ended August 31, 2022 August 31, 2023, and in comparison, to the year ended August 31, 2021 August 31, 2022.

### Executive Summary

Lexaria's DehydraTECH patented technology improves the delivery of bioactive compounds while promoting healthy ingestion methods, lowers overall dosing, and is highly effective in active molecule delivery available in a range of formats from oral ingestible to oral buccal/sublingual to topical products. DehydraTECH substantially improves the rapidity and quantity of API transport to the blood plasma and brain using the body's natural process for distributing fatty acids via the oral route. This technology extends across many categories beyond the primary pharmaceutical focus of the Company from foods and beverages to cosmetic products and nutraceuticals.

Lexaria is advancing several R&D activities in both preclinical and planned future clinical programs. Our primary focus during the year was on our investigations of CBD for the reduction of hypertension. We previously completed three human studies in the year on hypertension with final results that were supportive of our fourth plans to file an Investigational New Drug ("IND") application with the US Food and largest hypertension study to date expected to be released in the second fiscal quarter of 2023. Drug Administration ("FDA").

The FDA provided us with a positive written response from our pre-IND meeting in July 2022 regarding DehydraTECH-CBD for the treatment of hypertension. The FDA confirmed that it has had agreed with Lexaria's proposal to pursue a 505(b)(2) new drug application ("NDA") regulatory pathway for our program. We continue working toward our IND filing, however as announced in our news release of August 30, 2023, we have experienced some delays due to FDA compliance requirements of one of our ingredient suppliers which is anticipated must be completed prior to be in late fiscal 2023 or early 2024. our submission of our IND application.

During the year ended August 31, 2022 August 31, 2023, we also completed studies with estradiol and nicotine and reported improved drug delivery characteristics with both molecules after they were treated with DehydraTECH. In fiscal 2023, we also advanced R&D activities in NSAIDS, THC, PDE5s the fields of diabetes and nicotine. weight loss management pursuant to successfully completed animal study work with our DehydraTECH-CBD in these areas. It is now our intention to explore whether or not DehydraTECH has any benefits together with GLP-1 drugs in this regard.

The Company continues to engage in small R&D projects and B2B formulation for third parties who are evaluating our technology for use in their product.

We were granted a total of nine new patents during fiscal 2023 including our first ever patents in the country of Canada, making it one of our most successful years ever for the acquisition of new intellectual property.

23

## [Table of Contents](#)

### Financial condition and operating performance

The data generated from our past and ongoing R&D programs continues to support confirmatory results and are contributing greatly to our understanding of the workings of DehydraTECH. These findings encourage the pursuit of lucrative commercial applications in the pharmaceutical sector. We continue to devote an increasing proportion of our resources toward pharmaceutical applications with the continuation of our programs directed at hypertension as we move toward FDA approved IND clinical studies.

During the year ended August 31, 2022 August 31, 2023, we completed ten seven studies investigating DehydraTECH infused CBD, nicotine and initiated a further seven. estradiol. These programs, having been funded by the capital infusion of Lexaria's 2021 financing of approximately \$15m, \$15 million, supported our significant advancements in the fields of heart disease and hypertension, hormones, oral nicotine, and antiviral research. diabetes.

We consider the advancement of our applied R&D studies as a vital step towards our goal of establishing commercial relationships with industry partners who can utilizes utilize DehydraTECH within existing or new product lines. Conducting additional in vitro and in vivo studies which test the absorption of some, or all of the molecules named within our patents and patent applications, i.e. CBD, vitamins, PDE5 inhibitors, nicotine and anti-viral antiviral drugs, further substantiate the effectiveness of DehydraTECH. Successful tests are expected to increase awareness and acceptance of DehydraTECH as a meaningful method used to deliver some or all of the named molecules more effectively than current delivery methods avail. Absorption tests are an important element leading towards higher rates of acceptance and the implementation of our technology licensing initiatives. Our R&D results serve to de-risk the potential API products that could conceivably develop into clinical trials and ultimately new drugs.

Our pursuit of opportunities within the cannabinoid, nicotine and other bioactive molecular markets in the US and internationally continue unabated. We believe there are meaningful competitive advantages in manufacturers adopting DehydraTECH in their product products with its demonstrated higher absorption levels, its ability to infuse smaller quantities of active molecules in their products and the benefit of its predictable drug delivery times. Implementing our technology could lead to smaller dosing and decreased manufacturing costs while masking unwanted flavor and smell of the active molecules. We are anticipating these efforts will lead to increased licencing revenue through licensing partnerships. We are pursuing technology licensing opportunities as a method of generating profitable revenue streams over long periods of time. We have not yet, however, been able to secure a large client utilizing our technology in large quantities of products.

With ten US and nine Australian thirty-seven patents granted to date we also have numerous patent applications filed of which thirteen are granted in the US, and around the world. It is not possible Lexaria believes that it has a robust patent portfolio but continues to forecast with certainty when, or if, our applications will be granted as patents. We continue to vigorously seek patent additional protection in more than 40 countries around the world. for its intellectual property globally. The successful granting of additional patents could lead to material increases in shareholder value through the ability to generate meaningful license revenues from an our increased intellectual property portfolio.

Lexaria expects its current cash reserves to meet our operational requirements for the twelve months following the release of this report. The Company is continuing to explore strategic corporate business partnerships for many of its specific drug investigations after sufficient data has been generated which, if successful, could generate any combination of up-front milestone and/or royalty payments to the Company.

## [Table of Contents](#)

### Asset Sale

On December 9, 2020, Lexaria CanPharm ULC ("CanPharm") completed a disposition (the "Disposition") of its use and licensing rights for DehydraTECH technology (the "Assets") specifically in association with non-pharmaceutical products containing cannabis molecules that contain 0.3% or greater THC. The purpose of the Disposition was to remove the Company's association with cannabis as it remains a Schedule 1 Drug and thereby eliminating any such regulatory restrictions cannabis products may create. The Disposition also assisted in obtaining a listing on the Nasdaq on January 12, 2021. As a result of the Disposition, CanPharm assigned to the purchaser, Hill Street Beverage Company Ltd. ("Hill Street"), license agreements with three existing non-related-party licensees.

In consideration for the Assets, Hill Street provided CanPharm with C\$350,000 cash, a promissory note bearing a principal amount of C\$2,000,000 and bearing an interest rate of 10% (the "Note") and C\$1,500,000 in shares of Hill Street, issuable in three tranches by April 9, 2022. The repayment of the Note does not have a fixed maturity date and is based on quarterly instalments equal to 5% of the gross sales realized by Hill Street of DehydraTECH-enabled products. Due to the uncertainty pertaining to the settlement of the Note, management concluded that the note had \$Nil value at the time of the sale and was recorded as such. Some of the factors considered in the \$Nil valuation of the Note were that the legal sales of THC products in the US and Canada have little or no history which made the expectant quarterly payments very difficult to forecast. Further, Hill Street had no experience selling THC products and at the time of the sale was not licenced to produce and sell such products. Therefore, the Company considered risk of default high and the collectability of the Note as highly doubtful. Since the date of sale Hill Street has repaid \$25,083 of the Note and these amounts are considered other income when received.

Results of Operations for our Year Ended **August 31, 2022** **August 31, 2023**

Our net loss from operations for the year ended **August 31, 2022** **August 31, 2023**, was **\$7,391,283 (2021 \$6,712,525 (2022 - \$5,686,852) \$7,383,653)**. The changes between these periods for the respective items are summarized as follows:

	August 31 2022	August 31 2021	Change
	\$	\$	\$
Revenue	255,397	722,738	(467,341)
Research & development	1,842,675	1,262,895	579,780
Consulting fees & employees	2,244,664	2,627,765	(383,101)
Legal and professional	561,265	703,407	142,142
General and administrative	2,918,605	1,640,177	1,278,428
Net operating loss	(7,383,653)	(5,686,852)	1,696,801

	August 31 2023	August 31 2022	Change
Revenues	\$ 226,208	\$ 255,397	\$ (29,189)
Cost of goods sold	(31,500)	(71,841)	40,341
Research and development	3,666,721	1,842,675	1,824,046
Consulting fees & salaries	1,300,965	2,244,664	(943,699)
Legal and professional	444,593	561,265	(116,672)
Other general and administrative	1,316,451	2,153,991	(837,540)
Other income (loss)	(178,503)	(764,614)	586,111
Net Loss	\$ (6,712,525)	\$ (7,383,653)	\$ 671,128

## Revenue

Lexaria's business operations include technology licensing agreements where corporate licensees implement DehydraTECH under license within our contracted facilities under royalty agreements. This includes specific B2B pre-processed DehydraTECH CBD-powders manufactured at a Lexaria contracted GMP-certified food facility for clients to integrate into their final product formats. Fees are derived from a combination of manufacturing charges, royalties and trademark fees.

	Year Ended August 31,		
	2023	2022	Change

IP Licensing	\$ 146,800	\$ 54,560	\$ 92,240
B2B	44,167	113,438	(69,271)
Other	35,241	87,399	(52,158)
	<u>\$ 226,208</u>	<u>\$ 255,397</u>	<u>\$ (29,189)</u>

The primary source of revenues for the Company are derived from Lexaria Hemp where sales of B2B processing of intermediary CBD product saw a significant decrease of approximately 70% (2022 61% (2023 - \$113,438 \$44,167 vs 2021- \$383,179) 2022- \$113,438) in the year and contributed approximately 46% of the 2022 annual revenues. year. During the year ended August 31, 2022 August 31, 2023, Other revenue included \$35,241 (2022- \$87,399) from R&D contracts for exploratory work the Company also performed on behalf of third parties interested in our technology. Challenges in the US market for small companies has made it difficult to generate larger revenue streams, irrespective of the use of our technology, with many small companies struggling to exist. On the other hand, revenue generated by licensing our technology to others has grown substantially to reach \$146,800 in fiscal 2023 vs only \$54,560 (2021- \$86,921) from R&D contracts. in fiscal 2022.

In fiscal 2023 2024 and assuming our existing clients remain in compliance with their contracts, the Company expects to see an increase in revenue through further technology licensing from DehydraTECH processed hemp-based CBD and other consumer products. One of our contracted clients is contractually required to make significantly larger quarterly payments to us during fiscal 2024 than during fiscal 2023. The anticipated expansion of our intellectual property portfolio and conducting supportive R&D will may jointly contribute to strengthening revenue prospects as we continue to explore new applications for our technology.

In prior years, Lexaria developed a line of demonstration oral-delivered products that were utilized to show the efficacy of DehydraTECH and enabled the ability of manufacturers to incorporate the technology into their product lines. We had offered these products for sale to consumers through our web-based sales platform. During the year-ended August 31, 2021, we discontinued these direct-to-consumer demonstration products and closed our web sales platform in order to intensify our efforts on B2B production.

## [Table of Contents](#)

### *Research and Development*

Research and development ("R&D") costs are expensed as incurred and account for a significant portion of our operational expenses. With proceeds from our underwritten public offering in January of 2021, we were able to direct additional expenditures to the increased focus on studies pertaining to hypertension and anti-viral drugs. Our R&D expenditures for fiscal 2023, at \$3,666,721 were nearly double those of fiscal 2022 at \$1,842,675. This was in agreement with our internal plans. In large part, this was due to our ongoing expenditures in preparation for our hypertension-related prospective IND filing; and also because of R&D programs completed in the fields of a human oral nicotine study and animal based DehydraTECH-CBD seizure and diabetes studies. Each of these three areas of study produced positive results.

We will continue to invest in our R&D programs for the foreseeable future and we expect these expenses to continue to increase in 2023 2024 compared to 2022. 2023, assuming successful corporate financing activities. Our R&D programs are focused on three core business segments; heart disease including hypertension, segments: pharmaceutical applications, reduced-risk non-combusted nicotine and CBD from hemp. With the data collected Of these three, we do not expect to make any significant expenditures during the fiscal year 2022 management has concluded that our studies related to the improvement of antiviral drug delivery using DehydraTECH indicate that the economics are not attractive enough to further pursue this segment at this time. 2024 on non-combusted nicotine R&D.

Of significant note, Lexaria submitted our preliminary pre-meeting application for an Investigational New Drug ("IND") to the FDA with plans to develop a cannabidiol-based drug formulation, DehydraTECH-CBD for hypertension. We received a written response following our pre-IND meeting in August 2022 where the agency has agreed with the Company's plans to pursue a faster 505(b)(2) new drug application regulatory pathway for the program. The 505(b)(2) pathway permits a faster commercial approval than the traditional 505(b)(1) NDA pathway. The FDA has agreed with the Company's proposed clinical protocol for DehydraTECH-CBD, which, is as currently designed, to would target 100 120 patients with hypertension. The regulator has also decided that there was no need to conduct additional non-clinical studies before the start of the IND program. Lexaria has engaged its CRO and the start-up activities for this study have commenced. We expect to file our IND application in late fiscal 2023. as soon as possible after our third-party ingredient supplier has completed its FDA compliance requirements.

Preclinical and clinical development is inherently unpredictable as is regulatory approval and commercialization, therefore we are unable to estimate with any certainty the costs we will incur, and the timelines required in our continued development and commercialization efforts. We

will require significant additional funding to complete any IND planned studies. Any successful development and completion of clinical trials as well as regulatory approval and commercialization are uncertain and may not result in approved products. Completion dates and completion costs can vary significantly for each future product candidate and are difficult to predict. Lexaria and our commercial partners will continue to explore multiple R&D programs directed toward further evaluation, development, and commercialization of our DehydraTECH technology.

#### General and Administrative

General and administrative expenses consist primarily of consulting fees, executive and employee salaries the recording of non-cash expenses through and stock-based compensation for options vesting in the year and unrealized gains/losses on marketable securities. expense (non-cash). Also included are costs for advertising and marketing, investor relations, corporate facilities, insurance premiums, legal fees related to corporate matters, fees for auditing, and tax filings.

25

#### [Table of Contents](#)

Our general and administrative expenses saw an overall increase decrease of \$753,185 \$1,897,911 during the year ended August 31, 2022 August 31, 2023, from \$4,971,349 recorded in as compared to a \$753,185 increase during the previous year. We increased decreased advertising and promotional expenditures by \$752,097 in \$817,363, as we scaled back our continued efforts to bring the results of the Company's R&D programs to the attention of various industry sectors and to the scientific and investment communities. Stock-based compensation increased by \$365,873 in the current fiscal year as result of expense (non-cash) decreased from \$752,591 to \$170,382 (\$582,209), due to fewer options vested vesting during the year. These year-to-year decreases are a significant driver of the year-to-year overall decrease in consulting wages and salaries expense. Travel expenses were up also down by \$49,105 \$34,678 due primarily to a decrease in the year as covid restrictions were less of a barrier and we returned to near pre-pandemic excursion levels. participation in industry conferences.

Unrealized losses on marketable securities increased decreased by \$598,359 \$542,921 in the year. This is attributable to shares received as a part continuing decreases in the fair value of the sale of assets to Company's investment in Hill Street Beverage Company in the year 2021. The loss during fiscal 2022 on these securities was exacerbated by receipt of shares in the year that were valued according to the contract of sale and not at market value. Inc. common shares. We remain confident that the loss is likely may be temporary in nature as Hill Street Inc. continues to make inroads to the US hemp markets with DehydraTECH enabled products produced and sold by their licensees.

Our consulting fees and salaries decreased by \$383,118 \$943,699 in the year ended August 31, 2022 August 31, 2023, due primarily to a decrease of \$582,209 in stock-based (non-cash) compensation expense, the elimination of one management position and the renegotiation for reduced fees with our consultants. Legal and professional fees were \$140,142 \$116,672 lower in the year ended 2022 2023 as compared to the previous years expenses that included the additional fees related to our Nasdaq listing. In the previous year we recorded year's expenses. No bad debts of \$50,500 with no bad debts were recorded in the year years ended 2023 and 2022.

Corporate general The Company evaluated its patent portfolio and administrative expenses are expected determined that certain pending applications had been abandoned or would not be pursued. As such, during the year ended August 31, 2023, the Company recognized an impairment loss of \$106,761 related to increase moderately in fiscal 2023 as compared to 2022 as a result of higher human resource, regulatory, legal and investor relations costs and the potential impact of inflation. those abandoned applications.

#### Liquidity and Capital Resources

We have incurred Since Lexaria's entrance into the bioscience sector, it has accumulated net losses of \$45.8 million of which approximately \$7.4m \$6.7 million and \$4.2m \$7.4 million were incurred, respectively, in the past two fiscal years. We expect to continue to incur significant operational expenses and net losses in the upcoming 12 months and beyond. Our net losses may fluctuate significantly from quarter to quarter and year to year, depending on the stage and complexity of our R&D studies and related expenditures, the receipt of additional payments on related to the licencing out-licencing of our technology, if any, and the receipt of payments under any current or future collaborations we may enter into.

28

#### [Table of Contents](#)

Since Lexaria's entry into the bioscience sector in 2015 and through to August 31, 2022, we have accumulated a \$39.1m deficit despite generating total gross revenues of \$2.1m. We have used the issuance of common shares to raise the majority of capital required to fund our business operations. Since fiscal 2014, we have raised an aggregate of \$25.3m, of which \$16.1m was from the sale of our common stock, \$8.8m from warrants and \$0.4m from the exercise of stock options, enter.

As the Company continues with our IND application process and progresses into the clinical development of our initial product candidate, the need for substantial capital resources increases. Our existing cash will not be sufficient to complete the full development, testing and commercialization of an FDA approved product candidate. Accordingly, we will be required to obtain significant further funding to achieve this business objective, objective and/or delay or modify the program in accordance with the financial resources available.

On August 12, 2022, we entered into a sales agreement with Maxim Group LLC, ("Maxim"), pursuant to which we may offer and sell shares of our common stock with an aggregate offering price of up to \$5,925,000 under the At-The-Market ("ATM") Offering. The sales agreement provides that Maxim will be entitled to a sales commission equal to 3.0% of the gross sales price per share of all shares sold under the ATM Offering. As of November 25, 2022 we have not During the fiscal year ended August 31, 2023, 34,652 shares were sold any shares under the ATM Offering, for gross proceeds of \$114,456. Offering costs netted against proceeds amounted to \$125,122 and, as per the terms of the sales agreement, the ATM was terminated July 30, 2023.

On May 8, 2023, we entered into a placement agency agreement with Maxim, pursuant to which we agreed to sell 2,106,000 units at a price of \$0.95 per unit for aggregate gross and net proceeds of \$2,000,700 and \$1,600,397, respectively. Each unit was comprised of one share and one warrant, with each warrant being exercisable for a five-year period to purchase an additional share at a price of \$0.95. The securities were issued on May 11, 2023, and were registered pursuant to a Form S-1 registration statement filed under number 333-271096. Maxim was paid 7% of the gross proceeds and was also reimbursed \$70,000 for its expenses.

We may also offer securities in response to market conditions or other circumstances if we believe such a plan of financing is required to advance the Company's business plans. There is no certainty that future equity or debt financing will be available or that it will be at acceptable terms and the outcome of these matters is unpredictable. A lack of adequate funding may force us to reduce spending, curtail or suspend planned programs or possibly liquidate assets. Any of these actions could adversely and materially affect our business, cash flow, financial condition, results of operations, and potential prospects. The sale of additional equity may result in additional dilution to our stockholders. Entering into additional licencing agreements, collaborations, partnerships, alliances marketing, distribution, or licensing arrangements with third parties to increase our capital resources is also possible. If we do so we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable favourable to us.

## Table of Contents

The Company has evaluated whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern. As of August 31, 2022 August 31, 2023, the Company had cash on hand of approximately \$5.8m \$1.4 million to settle \$200,000 \$270,000 in current liabilities. The Company believes this is sufficient to fund our expected R&D and operating expenditures for twelve months proceeding twelve-months following the filing date of filing this report. We do not anticipate making any material capital expenditures in the fiscal 2023 2024 as we believe our current facilities and equipment are sufficient for the forthcoming twelve months proceeding following the filing date of filing this report.

Working Capital	August 31, 2022	August 31, 2021	August 31, 2023	August 31, 2022
Working Capital	\$	\$		
Current assets	6,977,516	12,442,940	\$ 2,199,772	\$ 6,977,516
Current liabilities	(194,036 )	(153,276 )	(267,735 )	(194,036 )
Net Working Capital	6,775,853	12,289,664	\$ 1,932,037	\$ 6,783,480

The Company's working capital balance decreased by approximately \$5.5m \$4.8 million due to the lack of financing activities and lower revenue contributions primarily to cash used in operating activities during the year ended August 31, 2022 August 31, 2023.



Cash Flows	August 31 2021 \$	August 31 2021 \$
Cash flows (used in) provided by operating activities	(4,879,339 )	(3,997,590)
Cash flows (used in) provided by investing activities	(180,640 )	193,880
Cash flows (used in) provided by financing activities	(44,600 )	13,427,758
Cash flows (used in) provided by discontinued operations	-	3,000
<b>Increase (decrease) in cash</b>	<b>(5,104,579)</b>	<b>9,624,048</b>

Cash Flows	August 31, 2023	August 31, 2022
Cash flows used in operating activities	\$ (5,881,237)	\$ (4,879,339)
Cash flows used in investing activities	(169,610)	(180,640)
Cash flows used in financing activities	1,589,731	(44,600)
<b>Decrease in cash</b>	<b>\$ (4,461,116)</b>	<b>\$ (5,104,579)</b>

### Operating Activities

Net cash used in operating activities was approximately \$4.9m \$5.9 million for the year ended August 31, 2022 August 31, 2023, compared with \$4.0m \$4.9 million during the same period in 2021. 2022. The increase in net cash used in operating activities during fiscal 2022 was the year ended August 31, 2023 relates primarily driven to a decrease in non-cash expenses related to common shares issued for services (\$1,200,000), stock-based compensation (\$582,209) and unrealized loss on marketable securities (\$542,921); partially offset by increased research a decrease in our net loss (\$671,128) and development programs, slight increases a decrease in office and administrative expenditures and significantly lower revenue. working capital (\$494,738).

### Investing Activities

Net cash used in investing activities is attributable to increased spending on our intellectual property. During the fiscal year, four nine additional patents were granted.

### [Table of Contents](#)

### Financing Activities

Net cash used in provided by financing activities reflects payments made on net proceeds from the lease issuance of our facilities. common shares. Net proceeds from the ATM and May 11, 2023 offerings totaled \$1,589,731.

### Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in conformity with the US GAAP. Preparing financial statements requires management to make estimates, judgements and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue, and expenses. Actual results may differ from these estimates.

Information about critical judgments in applying the accounting policies that have the most significant effect on the amounts recognized in the consolidated financial statements is discussed below. Further details of the nature of these judgments, estimates and assumptions may be found in

the relevant notes to the consolidated financial statements.

#### ***Stock-based compensation***

We account for our stock-based compensation awards in accordance with the FASB ASC Topic 718, *Compensation—Stock Compensation* (“ASC 718”). This requires all stock-based payments to employees, including grants of employee stock options and modifications to existing agreements to be recognized in the consolidated statements of operations and comprehensive loss based on their fair values. We use the Black-Scholes option-pricing model to determine the fair value of options granted.

Compensation expense related to our stock-based awards to employees, executives, directors and consultants have service-based vesting conditions and are recognized on a straight-line basis based on the grant date fair value over the associated service period of the award, generally the vesting term. The vesting terms of each grant is determined by our Board and typically have a 5-year contractual term.

The fair value estimation of options requires the input of subjective assumptions, including expected life of the option, stock price volatility, the risk-free interest rate, and expected dividends. The assumptions used in our Black-Scholes option-pricing model represent our best estimates involving numerous variables, uncertainties, assumptions, and the application judgment. They are inherently subjective. If any assumptions change, our stock-based compensation expense could be materially different in the future.

#### ***Off-Balance Sheet Arrangements***

We have no off-balance sheet arrangements that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

#### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

As a “Smaller Reporting Company”, this Item and the related disclosure is not required.

#### **Item 8. Financial Statements and Supplementary Data**

30 27

[Table of Contents](#)

 **Item 8. Financial Statements and Supplementary Data**

#### **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Shareholders and Directors of  
Lexaria Bioscience Corp.

#### ***Opinion on the Consolidated Financial Statements***

We have audited the accompanying consolidated balance sheets of Lexaria Bioscience Corp. (the “Company”), as of August 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, changes in stockholders’ equity, and cash flows for the years ended August 31, 2022 and 2021, and the related notes (collectively referred to as the “financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Lexaria Bioscience Corp. as of August 31, 2022 and 2021, and the results of its operations and its cash flows for the years ended August 31, 2022 and 2021 in conformity with accounting principles generally accepted in the United States of America.

#### ***Basis for Opinion***

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.



We conducted our **audits** **audit** in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our **audits** **audit** we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our **audits** **audit** included performing procedures to assess the risks of material misstatements of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our **audits** **audit** also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our **audits** **audit** provide a reasonable basis for our opinion.

#### **Critical Audit Matters**

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

We have not identified any critical audit matters for the **years** **year** ended August 31, 2022.

We served as the Company's auditor from 2016 to 2022.

Vancouver, Canada

/s/ DAVIDSON & COMPANY LLP

Chartered Professional Accountants

November 25, 2022

#### [Table of Contents](#)

#### **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Shareholders and **2021**. Board of Directors of  
Lexaria Bioscience Corp.

#### **Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of Lexaria Bioscience Corp. and its subsidiaries (collectively, the "Company") as of August 31, 2023, and the related consolidated statements of operations, stockholders' equity, and cash flows for the year then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of August 31, 2023, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

#### **Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audit provides a reasonable basis for our opinion.

#### Critical Audit Matters

Critical audit matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ MaloneBailey, LLP

www.malonebailey.com

We have served as the Company's auditor since 2016.2022.

Houston, Texas

November 17, 2023

/s/ DAVIDSON & COMPANY LLP

29

Vancouver, Canada

Chartered

Professional

Accountants

November 25, 2022

PCAOB ID - 731

[Table of Contents](#)

LEXARIA BIOSCIENCE CORP. CONSOLIDATED BALANCE SHEETS (Expressed in US Dollars)		
	Year Ended August 31,	
	2023	2022
<b>ASSETS</b>		
<b>Current</b>		
Cash	\$ 1,352,102	\$ 5,813,218
Marketable securities	125,642	347,335
Accounts receivable	175,245	201,784
Inventory	-	38,418
Prepaid expenses and other current assets	546,783	576,761
<b>Total Current Assets</b>	<b>2,199,772</b>	<b>6,977,516</b>
<b>Non-current assets, net</b>		
Right of use assets	167,446	52,444
Intellectual property, net	462,625	488,462
Property & equipment, net	254,143	315,505
<b>Total Non-current Assets</b>	<b>884,214</b>	<b>856,411</b>
<b>TOTAL ASSETS</b>	<b>\$ 3,083,986</b>	<b>\$ 7,833,927</b>
<b>LIABILITIES and STOCKHOLDERS' EQUITY</b>		
<b>Current Liabilities</b>		

Accounts payable and accrued liabilities	\$ 239,941	\$ 151,449
Lease liability, current	27,794	42,587
<b>Total Current Liabilities</b>	<b>267,735</b>	<b>194,036</b>
Lease liabilities - non-current	136,173	7,401
<b>TOTAL LIABILITIES</b>	<b>\$ 403,908</b>	<b>\$ 201,437</b>
<b>Stockholders' Equity</b>		
Share Capital		
Authorized: 220,000,000 common voting shares with a par value of \$0.001 per share Common shares issued and outstanding: 8,091,650 and 5,950,998 at August 31, 2023 and August 31, 2022, respectively	\$ 8,091	\$ 5,951
Additional paid-in capital	48,799,454	47,041,481
Accumulated deficit	(45,763,427)	(39,098,528)
Equity attributable to shareholders of Lexaria	3,044,118	7,948,904
Non-controlling Interest	(364,040)	(316,414)
<b>Total Stockholders' Equity</b>	<b>2,680,078</b>	<b>7,632,490</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 3,083,986</b>	<b>\$ 7,833,927</b>

0001640334-22-002512lxrp\_10kimg3.jpg

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

[Table of Contents](#)

#### LEXARIA BIOSCIENCE CORP.

#### CONSOLIDATED STATEMENTS OF OPERATIONS

(Expressed in US Dollars except share amounts)

	Year Ended August 31,	
	2023	2022
Revenue	\$ 226,208	\$ 255,397
Cost of goods sold	31,500	71,841
Gross profit	194,708	183,556
Operating expenses		
Research and development	3,666,721	1,842,675
General and administrative	3,062,009	4,959,920
Total operating expenses	6,728,730	6,802,595
Loss from operations	(6,534,022)	(6,619,039)
Other income (loss)		
Interest income	43,190	-
Unrealized loss on marketable securities	(221,693)	(764,614)
Total other income (loss)	(178,503)	(764,614)
Net loss for the year	\$ (6,712,525)	\$ (7,383,653)
Net loss attributable to:		

Common shareholders	\$ (6,664,899)	\$ (7,269,324)
Non-controlling interest	\$ (47,626)	\$ (114,329)
Basic and diluted loss per share	\$ (1.01)	\$ (1.24)
Weighted average number of common shares outstanding		
- Basic and diluted	6,614,066	5,885,245

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

[Table of Contents](#)

**LEXARIA BIOSCIENCE CORP.**  
**CONSOLIDATED BALANCE SHEET**  
(Expressed in U.S. Dollars)

	August 31 2022	August 31 2021
<b>ASSETS</b>		
<b>Current</b>		
Cash	\$ 5,813,218	\$ 10,917,797
Marketable securities	347,335	833,841
Accounts receivable	201,784	342,401
Inventory	38,418	29,648
Prepaid expenses and deposit	576,761	319,253
<b>Total Current Assets</b>	<u>6,977,516</u>	<u>12,442,940</u>
<b>Non-current assets, net</b>		
Right-of-use assets	52,444	91,041
Intellectual property	488,462	364,623
Property and equipment	315,505	368,213
<b>Total Non-current Assets</b>	<u>856,411</u>	<u>823,877</u>
<b>TOTAL ASSETS</b>	<u>\$ 7,833,927</u>	<u>\$ 13,266,817</u>
<b>LIABILITIES</b>		
<b>Current</b>		
Accounts payable and accrued liabilities	\$ 151,449	\$ 105,496
Loan payable	-	7,926
Lease liabilities	42,587	39,404
<b>Total Current Liabilities</b>	<u>194,036</u>	<u>153,276</u>
<b>Long Term</b>		
Lease liabilities - long term	7,401	49,989
<b>Total Long Term Liabilities</b>	<u>7,401</u>	<u>49,989</u>
<b>TOTAL LIABILITIES</b>	<u>201,437</u>	<u>203,265</u>

**STOCKHOLDERS' EQUITY****Share capital**

Authorized:

220,000,000 common voting shares with a par value of \$0.001 per share Issued and outstanding: 5,950,998 common shares at August 31, 2022 and 5,726,699 common shares at August 31, 2021

	5,951	5,727
<b>Additional paid-in capital</b>	47,041,481	45,089,114
<b>Deficit</b>	(39,098,528)	(31,829,204)
<b>Equity attributable to shareholders of the Company</b>	7,948,904	13,265,637
<b>Non-Controlling Interest</b>	(316,414)	(202,085)
<b>Total Stockholders' Equity</b>	7,632,490	13,063,552
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	\$ 7,833,927	\$ 13,266,817

**LEXARIA BIOSCIENCE CORP.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(Expressed in US Dollars)

	Year Ended August 31,	
	2023	2022
<b>Cash flows used in operating activities</b>		
Net loss	\$ (6,712,525)	\$ (7,383,653)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock based compensation	170,382	752,591
Depreciation and amortization	145,397	102,718
Impairment loss	106,761	-
Noncash lease expense	41,564	38,597
Unrealized loss on marketable securities	221,693	764,614
Shares issued for services	-	1,200,000
Lease accretion	2,227	5,195
Gain on forgiveness of loan	-	(7,926)
Change in operating assets and liabilities		
Accounts receivable	26,539	(137,491)
Inventory	43,069	(1,979)
Prepaid expenses and deposits	29,978	(257,508)
Accounts payable and accrued liabilities	88,492	50,726
Due to related parties	-	(5,223)
Operating lease liability	(44,814)	-
<b>Net cash used in operating activities</b>	<b>\$ (5,881,237)</b>	<b>\$ (4,879,339)</b>
<b>Cash flows used in investing activities</b>		
Intellectual property	(135,862)	(131,448)
Purchase of equipment	(33,748)	(49,192)
<b>Net cash used in investing activities</b>	<b>\$ (169,610)</b>	<b>\$ (180,640)</b>
<b>Cash flows from/(used in) financing activities</b>		
Proceeds from issuance of equity	1,589,731	-

Lease Payments	-	(44,600)
<b>Net cash from/(used in) financing activities</b>	<b>\$ 1,589,731</b>	<b>\$ (44,600)</b>
<b>Net change in cash for the year</b>	<b>(4,461,116)</b>	<b>(5,104,579)</b>
<b>Cash at beginning of year</b>	<b>5,813,218</b>	<b>10,917,797</b>
<b>Cash at end of year</b>	<b>\$ 1,352,102</b>	<b>\$ 5,813,218</b>
<b>Supplemental information of cash flows:</b>		
Income taxes paid in cash	\$ 8,214	\$ (4,782)
Marketable securities received on accounts receivable	\$ -	\$ 278,108
Remeasurement of operating lease right of use assets and liabilities	\$ 156,566	\$ -

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

[Table of Contents](#)

**LEXARIA BIOSCIENCE CORP.**

**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**

(Expressed in U.S. Dollars except number of shares)

	<b>August 31 2022</b>	<b>August 31 2021</b>
<b>Revenue</b>	\$ 255,397	\$ 722,738
<b>Cost of goods sold</b>	71,841	175,346
<b>Gross profit</b>	183,556	547,392
<b>Operating Expenses</b>		
Research and development	1,842,675	1,262,895
General and administrative	5,724,534	4,971,349
Total operating expenses	7,567,209	6,234,244
<b>Loss from operations</b>	(7,383,653)	(5,686,852)
Gain on disposal of assets	-	1,522,704
Discontinued operations	-	(22,000)
<b>Net loss and comprehensive loss for the year</b>	<b>\$ (7,383,653)</b>	<b>\$ (4,186,148)</b>
<b>Net loss and comprehensive loss attributable to:</b>		
Common shareholders	\$ (7,269,324)	\$ (4,027,006)
Non-controlling interest	\$ (114,329)	\$ (159,142)
<b>Basic and diluted loss per share</b>	<b>\$ (1.24)</b>	<b>\$ (0.95)</b>
<b>Basic and diluted earnings (loss) per share from discontinued operations</b>	<b>\$ -</b>	<b>\$ (0.01)</b>
<b>Weighted average number of common shares outstanding</b>		

**LEXARIA BIOSCIENCE CORP.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**For the Years Ended August 31, 2023 and 2022**  
**(Expressed in US Dollars)**

	Common Stock		Additional		Non-	Stockholders
	Shares	Amount	Paid-in	Deficit	controlling	Equity
			Capital		Interest	
<b>Balance August 31, 2021</b>	<b>5,726,699</b>	<b>\$ 5,727</b>	<b>\$45,089,114</b>	<b>\$ (31,829,204)</b>	<b>\$ (202,085)</b>	<b>\$ 13,063,552</b>
Shares issued for services	224,299	224	1,199,776	-	-	1,200,000
Stock based compensation	-	-	752,591	-	-	752,591
Net loss	-	-	-	(7,269,324)	-	(7,269,324)
Non-controlling interest	-	-	-	-	(114,329)	(114,329)
<b>Balance August 31, 2022</b>	<b>5,950,998</b>	<b>\$ 5,951</b>	<b>\$47,041,481</b>	<b>\$ (39,098,528)</b>	<b>\$ (316,414)</b>	<b>\$ 7,632,490</b>
Shares sold for cash	2,140,652	2,140	1,587,591	-	-	1,589,731
Stock based compensation	-	-	170,382	-	-	170,382
Net loss	-	-	-	(6,664,899)	-	(6,664,899)
Non-controlling interest	-	-	-	-	(47,626)	(47,626)
<b>Balance August 31, 2023</b>	<b>8,091,650</b>	<b>\$ 8,091</b>	<b>\$48,799,454</b>	<b>\$ (45,763,427)</b>	<b>\$ (364,040)</b>	<b>\$ 2,680,078</b>

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

**LEXARIA BIOSCIENCE CORP.**  
**CONSOLIDATED STATEMENT OF CASH FLOWS**  
**(Expressed in U.S. Dollars)**

	August 31 2022	August 31 2021
<b>Cash flows used in operating activities</b>		
Net loss and comprehensive loss	<b>\$ (7,383,653)</b>	<b>\$ (4,186,148)</b>
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock based compensation	<b>752,591</b>	410,007
Depreciation and amortization	<b>102,718</b>	111,718
Inventory write-off	-	2,482
Bad debt	-	50,500
Amortization on right of use asset	<b>38,597</b>	35,879
Realized loss on disposal of marketable securities	-	-
Unrealized loss on marketable securities	<b>764,614</b>	166,255
Gain on asset disposal	-	(1,522,704)
Common shares issued for services	<b>1,200,000</b>	85,000

Warrants issued for services	-	785,895
Lease accretion	5,195	7,912
Gain on forgiveness of loan	(7926)	
Change in working capital		
Accounts receivable	(137,491)	189,580
Inventory	(1,979)	95,037
Prepaid expenses and deposits	(257,508)	(137,158)
Accounts payable and accrued liabilities	50,726	13,803
Due to related parties	(5,223)	(53,481)
Deferred revenue	-	(44,255)
<b>Net cash used in operating activities</b>	<b>\$ (4,879,339)</b>	<b>\$ (3,989,678)</b>
<b>Cash flows from (used in) investing activities</b>		
Intellectual property	(131,448)	(79,493)
Asset disposition	(49,192)	273,373
<b>Net cash from (used in) investing activities</b>	<b>\$ (180,640)</b>	<b>\$ 193,880</b>
<b>Cash flows from (used in) financing activities</b>		
Long term loan	-	(22,744)
Lease payments	(44,600)	(43,950)
Proceeds from issuance of equity	-	9,471,497
Proceeds from warrant exercises	-	4,015,043
<b>Net cash from (used in) financing activities</b>	<b>\$ (44,600)</b>	<b>\$ 13,419,846</b>
<b>Increase in cash</b>	<b>(5,104,579)</b>	<b>9,624,048</b>
<b>Cash, beginning of year</b>	<b>10,917,797</b>	<b>1,293,749</b>
<b>Cash, end of year</b>	<b>\$ 5,813,218</b>	<b>\$ 10,917,797</b>
<b>Supplemental information of cash flows:</b>		
Income taxes paid in cash	\$ (4,782)	\$ (16,297)
Marketable securities received on accounts receivable	\$ 278,108	\$ 893,493

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

[Table of Contents](#)

LEXARIA BIOSCIENCE CORP.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(Expressed in U.S. Dollars except number of shares)

	SHARES	AMOUNT \$	ADDITIONAL PAID-IN CAPITAL \$	DEFICIT \$	NCI \$	TOTAL STOCKHOLDERS' EQUITY \$
<b>Balance August 31, 2020</b>	<b>3,001,476</b>	<b>3,001</b>	<b>30,324,398</b>	<b>(27,802,198)</b>	<b>(42,943)</b>	<b>2,482,258</b>
Shares issued for services	12,178	12	84,988	-	-	85,000
Stock based compensation	-	-	410,007	-	-	410,007
Warrants issued for services	-	-	785,895	-	-	785,895
Exercise of stock options	610,189	610	4,014,433	-	-	4,015,043



Private Placements	2,102,856	2,104	9,469,393	-	-	9,471,497
Net loss	-	-	-	(4,027,006)	-	(4,027,006)
Non-controlling interest	-	-	-	-	(159,142)	(159,142)
<b>Balance August 31, 2021</b>	<b>5,726,699</b>	<b>5,727</b>	<b>45,089,114</b>	<b>(31,829,204)</b>	<b>(202,085)</b>	<b>13,063,552</b>
Shares issued for services	224,299	224	1,199,776	-	-	1,200,000
Stock based compensation	-	-	752,591	-	-	752,591
Net loss	-	-	-	(7,269,324)	-	(7,269,324)
Non-controlling interest	-	-	-	-	(114,329)	(114,329)
<b>Balance August 31, 2022</b>	<b>5,950,998</b>	<b>5,951</b>	<b>47,041,481</b>	<b>(39,098,528)</b>	<b>(316,414)</b>	<b>7,632,490</b>

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

35

[Table of Contents](#)

LEXARIA BIOSCIENCE CORP.  
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS  
August 31, 2023 and 2022

## 1. Nature of Business

Lexaria Bioscience Corp. ("Lexaria", "we", "our" or the "Company") is a biotechnology company pursuing the enhancement of the bioavailability of a diverse and broad range of active pharmaceutical ingredients ("API") using our proprietary DehydraTECH drug delivery technology.

Revenues are generated from licensing contracts for the Company's patented DehydraTECH technology based on the terms of use and defined geographic and licensing arrangements. We derive income from our third party contracted manufacturing of B2B DehydraTECH enhanced products made to customer specifications that are sold online and in-store in the US and Canada. We also perform contract services in R&D for customer specific formulations that are used in comparison testing to customers' existing products.

### Liquidity and Going Concern Consideration

The Company's consolidated financial statements included herein have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") and in accordance with accounting principles generally accepted in the United States ("US GAAP") applicable to a going concern which assumes the Company will have sufficient funds to pay its operational, research and development and capital expenditures meet its financial obligations for a period of at least 12 months from the date of this Report.

Since inception, the Company has incurred significant operating and net losses. The losses attributable to shareholders were \$7.34m, \$4.2m, \$6.7 million and \$4.1m, \$7.34 million, for the years ended August 31, 2022, 2021, August 31, 2023 and 2020, 2022, respectively. As of August 31, 2022, August 31, 2023, we had an accumulated deficit of \$39.1m, \$45.8 million. We expect to continue to incur significant operational expenses and net losses in the upcoming 12 months. Our net losses may fluctuate significantly from quarter to quarter and year to year, depending on the stage and complexity of our R&D studies and corporate expenditures, additional revenues received from the licensing of our technology, if any, and the receipt of payments under any current or future collaborations we may enter into. The recurring losses and negative cash flows from operations raise substantial doubt as to the Company's ability to continue as a going concern.

On January 12, 2021, the Company closed an underwritten public offering with net proceeds of \$9,471,497. In the fourth quarter of 2021, During the year ended August 31, 2021, August 31, 2023, the Company received \$4,015,043 from the exercise of warrants. We did not receive any proceeds we raised \$114,456 from the sale of shares or exercise pursuant to our ATM offering and on May 11, 2023 we raised an additional \$2 million pursuant to a brokered registered offering. Net proceeds from these offerings totaled \$1,589,731, respectively. On October 3, 2023, the Company closed a registered direct offering resulting in net proceeds of convertible securities in the year ended August 31, 2022 approximately \$1.29 million. We may offer additional securities for sale during our fiscal year 2023, 2024 or thereafter in response to market conditions or other circumstances if we believe such a plan of financing is required to advance the Company's business plans and is in the best interests of our stockholders.

The Based on our existing working capital, management believes the Company has evaluated whether there are conditions or events, considered in sufficient working capital to satisfy the aggregate, Company's estimated liquidity needs for the next 12 months. In making this assessment, the Company believes that raise this alleviates the substantial doubt about in connection with the Company's ability to continue as a going concern. As of August 31, 2022, However, there is no assurance that management's plans will be successful. If the Company had cash and cash equivalents of approximately \$5.8m and carries no significant debt other than amounts payable in the short term. We believe this will sufficiently enable is unable to obtain funding, the Company would be forced to fund its operating and R&D expenses and any capital expenditure requirements through one year from the issuance date of the audited consolidated financial statements.

#### Impacts of COVID-19 Pandemic

The emergence of the COVID-19 pandemic in 2020 continues to present uncertainty and unforecastable new risks to the Company and its business plans. As of August 31, 2022, there has been no material impact on the Company's financial position as a direct result of the pandemic. However, the Company has experienced some supply chain disruptions and shortages in the timely procurement of ingredients and supplies used in both our R&D activities and B2B production. Management views this situation as transitory but cannot predict the length of time it may take for these disruptions to dissipate or if there will be a significant economic effect on the Company's operations. In the interim, it may cause delays in carrying out our research studies and in our production schedules.

There may be further actions we must take that alter our operations, including those that may be required by federal, state, provincial, or local authorities, or that we determine are in the best interests of our employees and other third parties with which we do business. We do not know when it will become practical to relax delay, reduce or eliminate some or all these measures entirely. The economic effect of a prolonged pandemic is difficult to predict its research and development programs, preclinical and clinical testing or commercialization efforts, which could result in material financial impact in the Company's future reporting periods. adversely affect its business prospects.

During the year ended August 31, 2020, we were in receipt of C\$30,732 in COVID relief under the Canada Emergency Wage Subsidy programs for employees which reduced our employment costs in that year. During fiscal 2020 we also received C\$40,000 from the Canadian Government sponsored Emergency Business Account loan program. As specified by the terms of this program, we have repaid C\$30,000 of the loan in fiscal 2021. The remaining C\$10,000 was forgiven and included as net loss in 2022.

## [Table of Contents](#)

### 2. Significant Accounting Policies

#### Basis of presentation and consolidation

These consolidated financial statements have been prepared in conformity with generally accepted accounting principles of the United States ("US GAAP") and pursuant to the rules and regulations of the SEC. All amounts, unless otherwise stated, are in U.S. dollars.

These consolidated financial statements include the financial statements of the Company and its wholly owned subsidiaries; subsidiaries: Lexaria Pharmaceutical Corp., Lexaria Hemp Corp., Lexaria CanPharm ULC, PoViva Lexaria Nutraceutical Corp., Poviva Corp., Lexaria CanPharm Holding Corp., and Kelowna Management Services Corp. The Company owns 83.3% of Lexaria Nicotine LLC and the remaining 16.7% is owned by Altria Ventures Inc. (an indirect wholly owned subsidiary of Altria Group, Inc.). All significant intercompany balances and transactions have been eliminated upon consolidation.

On December 9, 2020, the Company completed the sale of the business assets in the THC related segment of our subsidiary Lexaria CanPharm ULC. As a result, the related financial results pertaining to the sale are reflected in our consolidated statement of operations, retrospectively, as discontinued operations beginning in the first quarter of fiscal 2021.

#### Cash and cash equivalents

Cash and cash equivalents include cash-on-hand and demand deposits with financial institutions and other short-term investments with maturities of less than three months when acquired and readily convertible to known cash amounts. The Company had no cash equivalents as of August 31, 2023 or August 31, 2022.

## [Table of Contents](#)

### Marketable Securities

The Company's marketable securities consist of investments in common stock. Investments in equity securities are reported at August 31, 2022 fair value with changes in unrecognized gains or August 31, 2021. losses included in other income (loss) on the consolidated statements of operations.

## Leases

We have elected the package of practical expedients allowed The Company accounts for its leases under ASC Topic 842, Leases ("ASC 842") which permits us to account for our existing operating leases. Under this guidance, arrangements meeting the definition of a lease are classified as operating or financing leases, under and are recorded on the new guidance, without reassessing our prior conclusions about consolidated balance sheet as both a right of use asset and lease identification, lease classification and initial direct cost. As a result of the adoption of the new lease accounting guidance on September 1, 2019, we recognized operating lease right-of-use assets of \$160,289 and operating lease liabilities of \$158,773. liability.

We determined the initial classification and measurement of our right-of-use assets and lease liabilities at the lease commencement date and thereafter if modified. The lease term includes any renewal options and termination options that we are reasonably certain to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, we use our incremental borrowing rate. The incremental borrowing rate is determined by using the rate of interest that we would pay to borrow on a collateralized basis an amount equal to the lease payments for a similar term and in a similar economic environment.

Operating lease expenses are recognized on a straight-line basis, unless the right-of-use asset has been impaired, over the reasonably certain lease term based on the total lease payments. They are included in operating expenses in the consolidated statements of operations and comprehensive loss. operations.

For operating leases that reflect impairment, we will recognize the amortization of the right-of-use asset on a straight-lined straight-line basis over the remaining lease term with rent expense still included in operating expenses in the consolidated statements of operations and comprehensive loss. operations. For all leases, rent payments that are based on a fixed index or rate at the lease commencement date are included in the measurement of lease assets and lease liabilities at the lease commencement date.

We have elected the practical expedient to not separate lease and non-lease components. Our non-lease components are primarily related to property taxes and maintenance, which vary based on future outcomes, and thus differences to original estimates are recognized in rent expense when incurred.

## Intellectual property

Capitalized intellectual property represents US registered costs include those incurred with respect to both pending and granted patents that include legal costs incurred in pursuing patents applications filed in the United States. When such patent applications result in patents being issued, are filed, the directly related capital cost is capitalized costs are amortized over the life of the patent on a straight-line basis. basis over an estimated economic life of 20 years.

## Equipment

Equipment is stated at cost less accumulated depreciation and impairment and depreciated using the straight-line method over their the useful lives of the various asset classes. Laboratory and computer equipment and office furniture are depreciated over 3-10 years. Certain production equipment is depreciated by units of production method. Leasehold improvements are amortized over the term of the related leases. leases, or the economic life of the improvements, whichever is shorter.

## Impairment of long-lived assets

Long-lived assets, including equipment and intangible assets, namely the Company's patents, are assessed for potential impairment when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recovered. recoverable. An impairment loss is recognized when the carrying amount of the long-lived asset is not recoverable and exceeds its fair value. The carrying amount of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. Any required impairment loss is

measured as the amount by which the carrying amount of the long-lived asset exceeds its fair value and is recorded as a reduction in the carrying value of the related asset and a charge to the profit or loss. Intangible assets with indefinite lives are tested for impairment annually and in interim periods if certain events occur indicating that the carrying value of the intangible assets may be impaired.

#### Revenue recognition

##### Licensing revenue from intellectual property

Our revenues from licenses that grant the right to access our intellectual property, which we consider symbolic licenses of IP, are recognized over time following the transfer and use of our patented infusion technology DehydraTECH. DehydraTECH. Royalty revenues are recognized in the period in which our licensees sell the related products and recognizes recognize the related revenue, which in certain cases may require us to estimate our royalty revenue.

##### Usage fees from intellectual property

We recognize usage fees from B2B clients in the period in which the counterparty completes the manufacturing which incorporates DehydraTECH enabled APIs into the related product. We generally recognize revenue when we have satisfied all contractual obligations and are reasonably assured of collecting the resulting receivable. We Non-refundable minimum fees are often entitled recognized as revenue over the period to bill our customers and receive payment from our customers in advance of recognizing the revenue, which they apply.

---

35

#### [Table of Contents](#)

##### Product revenue

We generally recognize revenue when we have satisfied all contractual obligations and are reasonably assured of collecting the resulting receivable. We are often entitled to bill our customers and receive payment from our customers in advance of recognizing the revenue.

##### Cost of sales

Cost of sales includes all expenditures incurred in bringing the goods to the point of sale This includes third-party manufacturing and handling costs, direct costs of the raw material, inbound freight charges, warehousing costs, and applicable overhead expenses.

##### Research and development

Research and development costs are expensed as incurred. These expenditures are comprised of both in-house research programs and through third-party contracts including consultants, academic and non-profit institutions, contract manufacturing, and other expenses.

##### Intellectual property expenses

Costs Non-capitalizable costs associated with intellectual property-related matters are expensed as incurred and included in general and administrative expenses within the consolidated statements of operations.

##### Stock-based compensation

The Company accounts for its stock-based compensation awards whereby all stock-based grants are recognized as expenses in the consolidated statements of operations based on the fair value at grant date subject to vesting dates. dates and amortized over the related vesting period. The grant date fair value of each option award is estimated using the Black-Scholes option-pricing model. The use of the Black-Scholes option-pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates and expected dividend yields of the common stock.

---

38

## [Table of Contents](#)

### Foreign currency translation

The Company maintains its accounting records in US dollars. At the transaction date, each asset, liability, revenue, and expense that was acquired or incurred in a foreign currency is translated into US dollars by using the exchange rate in effect at that date; at the year end, monetary assets and liabilities are translated at the exchange rate in effect at that date. The resulting foreign exchange gains and losses are included within the consolidated statements of operations.

### Loss per share

The calculation of loss per share uses the weighted average number of shares outstanding during the year. Diluted net income per share includes the effect, if any, from the potential exercise or conversion of securities, such as restricted stock and stock options, which would result in the issuance of incremental shares of common stock. Diluted loss per share is equivalent to basic loss per share if the potential exercise of the equity-based financial instruments was anti-dilutive.

### Income taxes

The Company recognizes deferred tax liabilities and assets for the expected future tax consequences of events that have been recognized in the Company's financial statements or tax returns using the liability method. Under this method, deferred tax liabilities and assets are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect in the year in which the differences are expected to reverse.

### Comprehensive loss

The Company discloses comprehensive loss, its components, and accumulated balances on its Statement of Stockholders' Equity. Comprehensive loss comprises equity changes except those transactions resulting from investments by stakeholders and owners and distributions to owners, if any.

### Financial instruments

When measuring fair value, the Company seeks to maximize the use of observable inputs and minimize the use of unobservable inputs. This establishes a fair value hierarchy based on the level of independent objective evidence surrounding the inputs used to measure fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Inputs are prioritized into three levels used to measure fair value:

- Level 1 - Quoted prices in active markets for identical assets or liabilities;
- Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable; and
- Level 3 - Unobservable inputs that are supported by little or no market activity, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

## [Table of Contents](#)

The Company's financial instruments consist primarily of cash, marketable securities, accounts receivable and payable, accrued liabilities and loan payable. The carrying amounts of instruments approximate their fair values due to their short maturities or quoted market prices.

The Company's headquarters and operations are located in Canada which results in exposure to market risks from fluctuations in foreign currency rates. The foreign currency exchange risk is the financial risk to the Company's operations that arise from fluctuations in foreign exchange rates and the degree of volatility of these rates. Currently, the Company does not use derivative instruments to reduce its exposure to foreign currency risk as the impact of a rate changes for USD/CAD dollars is not expected to be material.

## Credit risk and receivable customer concentration

The Company places its cash with a high credit quality financial institution. As of August 31, 2022, Periodically, the Company had approximately \$5.8m may carry cash balances at such financial institution in excess of the federally insured limit of \$250,000. The Company has not experienced losses on deposit. (August 31, 2021: \$10.9m), these accounts and management believes, based upon the quality of the financial institution, that the credit risk with regard to these deposits is not significant.

In the year ended August 31, 2022 August 31, 2023, one licensee four customers accounted for 100% (2021 95% (2022 - 72% one customer was accounted for 100%) of consolidated revenues. At fiscal year end 2022, year-end 2023, we had \$37,248 (2021 \$24,635 (2022 - \$Nil) \$37,248) in licence license fees receivable. The Company incurred a did not incur any bad debt expense in fiscal 2021 (\$50,500) primarily due to cancellations of IP license agreements. 2022 or 2023.

As at August 31, 2022 of August 31, 2023, the Company had \$84,162 (2021 \$102,051 (2022 - \$47,741) \$84,162) in sales tax receivable. The Company considers its credit risk to be low for such receivables.

## [Table of Contents](#)

## Commitments and contingencies

The Company policy is to record accruals for any such loss contingencies when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. In the event that estimates or assumptions prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information. The Company, from time to time, may be subject to legal claims and proceedings related to matters arising in the ordinary course of business. Management has no knowledge of any such claim against the Company with, at minimum, a reasonable possibility that a material loss may be incurred.

## Reclassifications

Certain amounts in the prior period have been reclassified to conform with current period presentation.

## 3. Recent Accounting Guidance

## Pronouncements Issued but Not Yet Adopted

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This Accounting Standards Update represents a significant change in the accounting for credit losses model by requiring immediate recognition of management's estimates of current expected credit losses (CECL). Under the prior model, losses were recognized only as they were incurred. The FASB subsequently issued amendments Company has determined that it has met the criteria of a smaller reporting company ("SRC") as of November 15, 2019. As such, ASU 2019-10, Financial Instruments—Credit Losses, Derivatives and Hedging, and Leases: Effective Dates amended the effective date for the Company to be for reporting periods beginning after December 15, 2022. The Company will adopt ASU 2016-13 which have the same effective date and transition date of January 1, 2023 September 1, 2023. These standards require that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. For available-for-sale debt securities with unrealized losses, these standards now require allowances to be recorded instead of reducing the amortized cost of the investment. These standards limit the amount of credit losses to be recognized for available-for-sale debt securities to the amount by which carrying value exceeds fair value and requires the reversal of previously recognized credit losses if fair value increases. The Company does not currently expect the adoption of these standards to have a material impact on its consolidated financial statements.

## 4. Estimates and Judgments

The preparation of financial statements in conformity with US GAAP requires us to make certain estimates, judgments and assumptions that affect the reported amount of assets and liabilities, the disclosure of contingent liabilities at the date of the financial statements and the reported amount of revenue and expenses during the fiscal period. Some of the Company's accounting policies require us to make subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. These accounting policies involve critical accounting estimates because they are particularly



dependent on estimates and assumptions made by management about matters that are highly uncertain at the time the accounting estimates are made. Although we have used our best estimates based on facts and circumstances available to us at the time, different estimates reasonably could have been used. Changes in the accounting estimates used by the Company are reasonably likely to occur from time to time, which may have a material effect on the presentation of financial condition and results of operations.

Management reviews our estimates, judgments, and assumptions periodically and reflect reflects the effects of any revisions in the period in which they are deemed to be necessary. We believe that these estimates are reasonable. However, actual results could differ from these estimates.

Significant accounting estimates and assumptions are used for, but not limited to:

37

## Revenue Recognition

The Company records revenue from out-licensing our technology, including the License Agreement with Premier Wellness Science Co. Ltd. Judgment is necessary to determine the appropriate amount of revenue to be recognized as the Company fulfils its obligations under these agreements. The Company has granted the counterparty a license to develop and commercialize the underlying licensed product and these agreements contain license fee payments, sales-based royalty payments and additional performance obligations related to the license after delivery.

[Table of Contents](#)

## The Valuation of Deferred Tax Assets

Judgment is required in determining whether deferred tax assets are recognized on the balance sheet. The recognition of deferred tax assets requires management to assess the likelihood that the Company will generate taxable income in future periods to utilize the deferred tax assets. Due to the Company's history of losses, valuation allowances are established when necessary to reduce deferred tax assets have to the amount more likely than not been recognized by Lexaria. to be realized.

## Value of Stock Options and Warrants

The Company provides compensation benefits to its employees, officers, directors, and consultants, through a stock option plan. The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. Expected volatility assumptions used in the model are based on the historical volatility of the Company's share price. The Company uses historical data to estimate the period of option exercises for use in the valuation model. The risk-free interest rate for the expected term of the option is based on the yields of government bonds. Changes in these assumptions, especially the share price volatility and the expected life determination could have a material impact on the Company's profit and loss for the years presented. All estimates used in the model are based on historical data, which may not be representative of future results.

40

[Table of Contents](#)

## Disposals of Assets - Value of Note Receivable

The Asset Purchase Agreement for the sale of assets to Hill Street Inc. Beverages included C\$2m 2 million note (the "Note") receivable as partial payment of the agreement. The Note does not contain a fixed repayment schedule nor a maturity date. The repayment of the Note is based on the purchaser repaying the outstanding value of the Note and interest from the future revenues generated from an untested market with no existing revenue streams. Therefore, with any repayment being highly doubtful, management determined at that time and as at August 31, 2022 & 2021 of August 31, 2023 and 2022 that the value of the note to be notional and recorded the note at a \$Nil zero value for accounting purposes. During fiscal 2023, we received interest income on the note totaling \$43,190 (2022 - \$29,060). Hill Inc. continues to operate and make ongoing interest payments to us in relation to this Note.

## Impairment of Long-Lived Assets

The Company evaluated its patent portfolio and determined that certain pending applications had been abandoned or would not be pursued. As such, during the year ended August 31, 2023, the Company recognized an impairment loss of \$106,761 related to those abandoned applications.



## 5. Marketable Securities

The components of Marketable Securities were as follows:

	Cost Basis	Unrealized Gains	Unrealized Losses	Total
	\$	\$	\$	\$
August 31, 2020	56,250	9,441	(28,762)	19,321
Common Stock	980,775	6,802	(190,665)	
August 31, 2021	1,037,025	16,243	(219,427)	833,841
Common Stock	278,107	118,195	(822,809)	
<b>August 31, 2022</b>	<b>1,315,132</b>	<b>134,438</b>	<b>(1,102,236)</b>	<b>347,335</b>

	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
August 31, 2021	\$ 1,037,025	\$ 16,243	\$ (219,427)	\$ 833,841
Common stock	278,107	118,196	(882,809)	(486,506)
August 31, 2022	\$ 1,315,132	\$ 134,439	\$ (1,102,236)	\$ 347,335
Common stock	-	1,856	(223,549)	(221,693)
<b>August 31, 2023</b>	<b>\$ 1,315,132</b>	<b>\$ 136,295</b>	<b>\$ (1,325,785)</b>	<b>\$ 125,642</b>

Marketable securities represented the common shares of Hill Street Beverage Company Inc. held by Lexaria. which are carried at fair value using Level 1 inputs. Unrealized losses from common stock are due to market price movements. In Management's management's opinion based on the evaluation of available information at the year ended August 31, 2022 August 31, 2023, unrealized losses represent temporary impairments.

## 6. Accounts and Other Receivables

	August 31 2022	August 31 2021
	\$	\$
Trade and deposits receivable	80,374	16,553
Territory license fee receivable	37,248	-
Sale of assets - shares receivable	-	278,107
Sales tax receivable	84,162	47,741
	<b>201,784</b>	<b>342,401</b>

## 7. Inventory

	August 31 2022	August 31 2021
	\$	\$
Raw materials	38,418	29,648

In the year ended August 31, 2022, inventory valued at \$2,465 (2021 \$2,482) was written off to reflect its net realisable value.

In the year ended August 31, 2021, the Company divested its operations in on-line sales of consumer products and as a result finished goods inventory valued at \$44,851 was expensed as advertising and promotion with the goods being donated to a registered charity.

## 8. Prepaid Expenses

Prepaid expenses consist of the following as at August 31, 2022 and August 31, 2021:

	August 31 2022 \$	August 31 2021 \$
Advertising and conferences	359,863	168,760
Consulting	-	18,750
Legal fees	25,000	31,380
Licence, filing fees, dues	15,000	19,500
Office and insurance	80,863	80,863
Capital Financing	96,035	-
	<b>576,761</b>	<b>319,253</b>

41 38

[Table of Contents](#)

## 6. Accounts and Other Receivables

Accounts receivable at August 31, 2023 and August 31, 2022 consist of the following:

	August 31, 2023	August 31, 2022
Trade and deposits	\$ 48,559	\$ 80,374
Territory license fees	24,635	37,248
Sales tax	102,051	84,162
	<b>\$ 175,245</b>	<b>\$ 201,784</b>

## 7. Inventory

Inventory of raw materials on August 31, 2023, and August 31, 2022, consist of the following:

	August 31, 2023	August 31, 2022
Raw materials	\$ -	\$ 38,418
	<b>\$ -</b>	<b>\$ 38,418</b>

In the year ended August 31, 2023, raw materials inventory valued at \$38,418 was expensed to R&D.

## 8. Prepaid Expenses and Other Current Assets

Prepaid expenses consist of the following at August 31, 2023 and August 31, 2022:

	August 31, 2023	August 31, 2022
Advertising & conferences	\$ 40,342	\$ 359,863
Legal & accounting fees	36,795	25,000
License, filing fees, dues	15,668	15,000
Office & insurance	97,167	80,863
Consulting	331,811	-
Capital financing	25,000	96,035
	<b>\$ 546,783</b>	<b>\$ 576,761</b>

## 9. Intellectual Property, net

The following is a list of capitalized US patents held by the Company.

Issued Patent #	Patent Certificate Grant Date	Patent Family
US 9,474,725 B1	10/25/2016	#1 Food and Beverage Compositions Infused With Lipophilic Active Agents and Methods of Use Thereof

US 9,839,612 B2	12/12/2017	
US 9,972,680 B2	05/15/2018	
US 9,974,739 B2	05/22/2018	
US 10,084,044 B2	09/25/2018	
US 10,103,225 B2	10/16/2018	
US 10,381,440	08/13/2019	
US 10,374,036	08/06/2019	
US 10,756,180	08/25/2020	
US 11,311,559	04/26/2022	#18 Compositions and Methods for Enhanced Delivery of Antiviral Agents
US 11,700,875	07/18/2023	#20 Compositions and Methods for Sublingual Delivery of Nicotine
US 11,666,544	06/06/2023	#21 Compositions and Methods for Treating Hypertension
US 11,666,543	06/06/2023	

39

[Table of Contents](#)

**Schedule of A continuity schedule for capitalized patents: patents is presented below:**

	August 31 2022 \$	August 31 2021 \$
Balance – Beginning	364,623	292,000
Addition	131,448	79,493
Amortization	(7,609)	(6,870)
Balance – Ending	<b>488,462</b>	<b>364,623</b>
Patents are amortized over their legal life of 20 years.		

	August 31, 2023	August 31, 2022
Balance – beginning	\$ 488,462	\$ 364,623
Addition	135,862	131,448
Impairment	(106,761)	-
Amortization	(54,938)	(7,609)
<b>Balance – ending</b>	<b>\$ 462,625</b>	<b>\$ 488,462</b>

**At August 31, 2023 the Company has capitalized a total of \$462,625 of patents. Included in the capitalized costs is \$457,445 of costs associated with patents and licenses that have been filed. Also included in the capitalized costs is \$5,180 of costs associated with provisional patents and pending applications which have not yet been filed.**

**The Company evaluated its patent portfolio and determined that certain pending applications had been abandoned or would not be pursued. As such, during the year ended August 31, 2023, the Company recognized an impairment loss of \$106,761 (2022 - \$Nil) related to those abandoned applications. The Company recognized \$54,938 of amortization expense related to patents and licenses in the year ended August 31, 2023 (2022 - \$7,609).**

#### 10. Property & Equipment, net

Year Ended Aug. 31, 2022	Cost	Amortization	Additions	Disposals	Accumulated Amortization	Net Balance
--------------------------	------	--------------	-----------	-----------	-----------------------------	----------------

	\$	\$	\$	\$	\$	\$
Leasehold improvements	259,981	(54,037)	-	-	(194,685)	65,296
Computers	63,964	(9,874)	6,817	-	(61,424)	9,357
Furniture & fixtures	31,126	(6,417)	-	-	(22,837)	8,288
Lab equipment	291,235	(31,572)	42,375	-	(101,047)	232,564
	<u>646,306</u>	<u>(101,900)</u>	<u>49,192</u>	<u>-</u>	<u>(379,993)</u>	<u>315,505</u>

**Property and equipment, net consists of:**

Year Ended	Cost	Amortization	Additions	Disposals	Accumulated Amortization	Net Balance					
Aug. 31, 2021											
August 31, 2023							Period Cost	Amortization	Additions	Accumulated Amortization	Net Balance
	\$	\$	\$	\$	\$	\$					
<b>Leasehold improvements</b>	<b>259,981</b>	<b>(54,038)</b>	<b>-</b>	<b>-</b>	<b>(140,648)</b>	<b>119,333</b>	<b>\$ 259,981</b>	<b>\$ (54,037)</b>	<b>\$ -</b>	<b>\$ (248,723)</b>	<b>\$ 11,258</b>
<b>Computers</b>	<b>63,964</b>	<b>(19,681)</b>	<b>-</b>	<b>-</b>	<b>(51,550)</b>	<b>12,414</b>	<b>70,781</b>	<b>(4,732)</b>	<b>-</b>	<b>(66,156)</b>	<b>\$ 4,625</b>
<b>Furniture &amp; fixtures</b>	<b>34,220</b>	<b>(6,417)</b>	<b>-</b>	<b>(3,094)</b>	<b>(16,420)</b>	<b>14,706</b>					
<b>Furniture fixtures equipment</b>							<b>31,126</b>	<b>(6,417)</b>	<b>-</b>	<b>(29,257)</b>	<b>\$ 1,869</b>
<b>Lab equipment</b>	<b>291,235</b>	<b>(35,008)</b>	<b>-</b>	<b>-</b>	<b>(69,475)</b>	<b>221,760</b>	<b>333,675</b>	<b>(29,986)</b>	<b>33,748</b>	<b>(131,032)</b>	<b>\$ 236,391</b>
	<u><b>649,400</b></u>	<u><b>(115,144)</b></u>	<u><b>-</b></u>	<u><b>(3,094)</b></u>	<u><b>(278,093)</b></u>	<u><b>368,213</b></u>	<u><b>\$ 695,563</b></u>	<u><b>\$ (95,172)</b></u>	<u><b>\$ 33,748</b></u>	<u><b>\$ (475,168)</b></u>	<u><b>\$ 254,143</b></u>
August 31, 2022	Cost	Period Amortization	Additions			Accumulated Amortization			Net Balance		
Leasehold improvements	\$ 259,981	\$ (54,037)	\$ -			\$ (194,685)			\$ 65,296		
Computers	63,964	(9,874)	6,817			(61,424)			9,357		
Furniture fixtures equipment	31,126	(6,417)	-			(22,837)			8,289		
Lab equipment	291,235	(31,572)	42,375			(101,047)			232,563		
	<u>\$ 646,306</u>	<u>\$ (101,900)</u>	<u>\$ 49,192</u>			<u>\$ (379,993)</u>			<u>\$ 315,505</u>		

During the year ended August 31, 2022 August 31, 2023, amortization of \$3,655 (2021 \$4,651 (2022 - \$10,926) \$3,655) was included in the cost of goods sold.

42/40

[Table of Contents](#)

## 11. Accounts Payable and Accrued Liabilities

	August 31 2022	August 31 2021
	\$	\$
<b>Accounts Payable</b>		
Vendors payable	57,150	59,891

Sales tax payable	31,303	-
<b>Accrued Liabilities</b>		
Corporate tax payable	-	1,055
Vendors payable	62,996	45,000
<b>Total</b>	<b>151,449</b>	<b>105,946</b>

**Accounts payable and accrued liabilities** consist of the following as of August 31, 2023 and August 31, 2022:

	August 31, 2023	August 31, 2022
<b>Accounts Payable</b>		
Trade payables	\$ 225,038	\$ 57,150
Sales tax payable	14,903	31,303
<b>Accrued Liabilities</b>		
Trade payables	-	62,996
	<b>\$ 239,941</b>	<b>\$ 151,449</b>

## 12. Related Party Transactions Revenues

Related party transactions, Aug 31, Revenues for the years ended August 31, 2023 and 2022 (\$Nil), Aug 31 2021, (\$5,223 ) are included in accounts payable and represent expenses incurred in consist of the ordinary course of business. following:

## 13. Revenues

	August 31 2022 \$	August 31 2021 \$
B2B sales	113,438	383,179
Licensing Revenue	54,560	334,974
Research & Development	54,800	-
Other Revenue	32,599	4,585
	<b>255,397</b>	<b>722,738</b>

	Year Ended August 31,	
	2023	2022
<b>IP Licensing</b>	\$ 146,800	\$ 54,560
<b>B2B</b>	44,167	113,438
<b>Other</b>	35,241	87,399
	<b>\$ 226,208</b>	<b>\$ 255,397</b>

The Company recognized B2B product revenues of \$113,438 (2021 \$44,167 (2022 - \$383,179) \$113,438) that relate to sales of our intermediate products for use by four two B2B customers in their products. Licensing revenue consist consists of IP licensing fees for transfer of the DehydraTECH technology in line with definitive agreements and also includes royalty fees. The Company recognized \$54,560 (2021 \$146,800 (2022 - \$334,974) \$54,560) in licensing revenue during the year.

## 14. 13. Income Tax Taxes

The following table reconciles the income tax benefit at the U.S. Federal statutory rate to income tax benefit at the Company's effective tax rates as at August 31, 2022 August 31, 2023 and 2021: 2022:

	August 31 2022	August 31 2021	August 31 2023	August 31 2022
	\$	\$	\$	\$
Loss before taxes	(7,383,653)	(4,169,832)	(6,712,525)	(7,383,653)
Expected income tax recovery	(1,619,854)	(800,952)	(1,427,529)	(1,619,854)
Non-deductible items	(280,155)	(142,895)	(831)	(280,155)
Change in estimates	(44,867)	(56,316)	4,271	(44,867)
Effect of changes in foreign and long-term tax rates	23,625	-	-	23,625
Change in valuation allowance	1,271,207	1,006,256	1,432,305	1,921,251
Total income taxes	-	6,093	8,216	-

43 41

[Table of Contents](#)

Deferred taxes reflect the tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes. Deferred tax assets at August 31, 2022 August 31, 2023 and 2021 2022 are comprised of the following:

	August 31 2022	August 31 2021	August 31 2023	August 31 2022
	\$	\$	\$	\$
Non-capital losses	7,747,485	6,580,183	8,637,353	7,747,485
Marketable securities	118,175	14,270	(14,051)	118,175
Total unrecognized deferred tax assets	7,865,660	6,594,453		
Stock based compensation			650,778	-
R&D			371,326	-
PPE and intangibles			(64,569)	-
Total deferred tax assets			9,580,837	7,865,660
Valuation Allowance			(9,580,837)	(7,865,660)
Net Deferred tax assets			-	-

The Company has net operating loss carry-forwards of approximately \$36,387,000 \$40 million which may be carried forward to apply against future year income tax for U.S. tax purposes.

Year	Amount	Canada
2026		-
2025	76,000	-
2026	508,000	-
2027	1,056,000	-
2028	720,000	-
2029	753,000	-
2030	552,000	-
2031	538,000	-
2032	252,000	-

2033	344,000	-
2034	3,257,000	-
2035	1,934,000	-
2036	1,150,000	-
2037	1,857,000	-
2038	-	-
2039	-	-
2040	-	270,000
2041	-	-
2042	-	380,000
Indefinite	23,390,000	-
<b>Total</b>	<b>36,387,000</b>	<b>650,000</b>

#### 15. 14. Common Shares and Warrants

#### Fiscal 2023 Activity

During the year ended August 31, 2023, the Company completed the following issuances of common shares and warrants:

- 34,652 shares were sold pursuant to an at-the-market offering ("ATM") for gross proceeds of \$114,456. Offering costs netted against proceeds amounted to \$125,122; and
- 2,106,000 units were sold at a price of \$0.95 per unit, with each unit consisting of one common share and one warrant exercisable to purchase an additional common share at \$0.95 per share, for net proceeds of \$1,600,397. The 2,106,000 warrants are exercisable for a period of five (5) years.

#### [Table of Contents](#)

No warrants have been exercised and 7,500 warrants expired during the year ended August 31, 2023.

Presented below is a continuity schedule for warrants:

	Number of Warrants	Weighted Average Exercise Price \$
Balance, Aug 31, 2021	2,447,275	8.00
Cancelled/expired	(25,292)	4.57
Balance, Aug 31, 2022	2,421,983	8.04
Cancelled/expired	(7,500)	24.00
Issued	2,106,000	0.95
Balance, August 31, 2023	4,520,483	4.71

Presented below is a summary of warrants outstanding as of August 31, 2023:

Number of Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)
60,798	\$ 36.00	1.21-1.25
317,190	\$ 10.50	1.68-1.70
116,667	\$ 9.00	0.62-1.54
200,000	\$ 7.00	0.62
1,719,828	\$ 6.58	2.38
2,106,000	\$ 0.95	4.70
<b>4,520,483</b>	<b>\$ 4.71</b>	<b>3.28</b>

#### Fiscal 2022 Activity



During the year ended August 31, 2022, the Company issued 224,299 restricted shares valued at \$1,200,000 for payment of contracted services. We did not issue any warrants, no warrants were exercised, and 25,292 warrants expired.

A summary of share issuances for the year ended August 31, 2022, is presented below:

Type of Issuance	Number of Shares	Total Value \$
Warrant exercise	-	-
Private placement	-	-
Per agreements <sup>(1)</sup>	224,499	1,200,000
	224,499	1,200,000

<sup>(1)</sup> The Company awarded restricted common shares as required by consulting contracts.

## Table of Contents

Presented below is a continuity schedule for warrants:

	Number of warrants	Weighted average exercise price \$
Balance August 31, 2020	471,608	16.77
Cancelled/Expired	(44,161)	67.50
Exercised	(610,189)	6.58
Issued	2,630,017	6.58
Balance August 31, 2021	2,447,275	8.00
Cancelled/Expired	(25,292)	4.57
Balance August 31, 2022	2,421,983	8.04

The fair value of share purchase warrants granted as compensation units, and compensatory warrants, was estimated as of the date of the grant by using the Black-Scholes option pricing model with the following assumptions:

	August 31 2022	August 31 2021
Expected volatility	-	103%
Risk-free interest rate	-	0.16%
Expected life	-	3 years
Dividend yield	- %	0 %
Estimated fair value per warrant	- \$	6.51

Presented below is a summary of warrants outstanding as of August 31, 2022:

Number of Warrants	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price \$
60,798	3.16 years	36.00
7,500	0.18 years	24.00
317,190	2.65 years	10.50
116,667	1.63-2.68 years	9.00
200,000	1.63 years	7.00
1,719,828	3.37 years	6.58
2,421,983	3.04 years	8.04

## Fiscal 2021 Activity

On January 11, 2021, the Company filed an amendment and restatement of its articles of incorporation to effectuate a 1-for-30 reverse stock split of the issued and outstanding share of common stock of the Company.

During the year ended August 31, 2021, the Company closed an underwritten public offering for an aggregate total of 2,102,856 units priced at \$5.25. Each unit consists of one common share and one share purchase warrant entitling the holder to acquire one common share, for a period of five years, at \$6.58 per share. The Company paid fees of \$1,568,499 and issued 227,161 broker warrants with a term of 24 months, each exercisable into one common share at \$6.58 per share. The net proceeds of the offering were \$9,471,497 after deducting underwriters discount, fees and expenses.

During the year ended August 31, 2021, the Company issued 610,189 common shares on the exercise of warrants for proceeds of \$4,015,043.

The Company granted 300,000 warrants with an exercise price of \$9.00 pursuant to consulting agreements in fiscal 2021. Using the Black-Scholes pricing model, the warrants were valued at \$785,895 and were recorded as a consulting expense. Subsequent to the grant, 200,000 warrants were repriced at \$7.00.

## 16. 15. Stock Options

The Company established an Equity Incentive Plan whereby our Board, pursuant to shareholder approved amendments, may grant up to 261,290,809,165 stock options to directors, officers, employees, and consultants. During the Company's 2021 Annual Meeting of Shareholders, shareholders voted in favour of increasing the consultants with such number of allowable stock options by an additional 249,143 options. The aggregate number of shares issuable under the Equity Incentive Plan is 510,433 shares, representing being increased to up to 10% of the Company's issued share capital at the time end of each calendar year, at the discretion of the 2021 Annual General Meeting. board, pursuant to an evergreen formula. While these amendments have been approved by the Company's shareholders, the Company has not filed an S-8 Registration Statement to register these additional securities, accordingly, until such S-8 Registration Statement is filed with the SEC, the Company may only issue up to 510,433 shares under the current registered Equity Incentive Plan.

45

## Table of Contents

Stock options granted may be exercised for a maximum period of up to ten (10) years but to date all currently issued options must be exercised, as determined by our Board, by no later than five years from the date of grant as determined by our Board. grant. The exercise price of an option is equal to or greater than the closing market price of the Company's common shares on the day preceding the date of grant. Vesting terms are set by our Board. The estimated fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model.

43

## Table of Contents

### Fiscal 2022 2023 Activity

The Company granted the following stock options in during the year ending August 31, 2022 ended August 31, 2023:

	Quantity	Exercise Price \$	Life (Years)
	81,800	6.23	5
	36,700	3.39	5
	103,500	2.91	5
August 31, 2022	222,000	Average 4.21	5

Options	Weighted Average Exercise Price	Contractual Life (years)
41,200	\$ 1.96	5
5,000	\$ 2.73	5
3,400	\$ 3.04	5
20,000	\$ 0.87	5
69,600	\$ 1.75	(Avg. Contractual Life) 5

### Fiscal 2021 2022 Activity

The Company granted the following stock options in during the year ending August 31, 2021 August 31, 2022:

	Quantity		Exercise Price \$	Life (Years)
	3,400		4.80	5
	12,000		5.04	5
	43,500		5.31	5
	26,000		5.83	
August 31, 2021	84,900	Average	5.41	5

	Quantity		Exercise Price \$	Contractual Life (years)
	81,800		6.23	5
	36,700		3.39	5
	103,500		2.91	5
August 31, 2022	222,000	Average	4.21	5

During the year ended August 31, 2021 87,935 August 31, 2023, 267,969 previously granted options with exercise prices ranging from \$9.60 to \$4.80 were repriced to \$3.00 following shareholder approval obtained at a strike price of \$9.60 were cancelled and re-issued at \$7.08. the Company's annual shareholder meeting held on May 9, 2023.

A continuity schedule for stock options is presented below:

	Options	Weighted Average Exercise Price \$	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value \$
Balance August 31, 2020	171,604	11.17		
Expired/Cancelled	(50,344)	10.76		
Granted	161,600	5.41		
Balance August 31, 2021	206,170	8.90		
Expired/Cancelled	(3,334)	9.60		
Granted	222,000	4.21		
Balance August 31, 2022 (Outstanding)	424,836	6.45	3.69	5,175
Balance August 31, 2022 (Exercisable)	401,333	6.57	3.66	5,175

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Balance August 31, 2021	206,170	\$ 8.90		
Cancelled/expired	(3,334)	9.60		
Granted	222,000	4.21		
Balance August 31, 2022	424,836	6.45		
Cancelled/expired	(47,500)	2.98		

Granted	69,600	1.75		
Balance August 31, 2023 (Outstanding)	446,936	\$ 3.32	3.25	\$ 3,600
Balance August 31, 2023 (Exercisable)	435,186	\$ 3.32	3.25	\$ 3,600

The intrinsic value of stock option awards that vested during the fiscal year represents the value of the Company's closing stock price on the last trading day of the fiscal year in excess of the exercise price multiplied by the number of vested options.

46

The fair value of options awarded during the fiscal years ended August 31, 2023 and August 31, 2022 totaled \$89,057 and \$680,511, respectively.

[Table of Contents](#)

The fair value of options granted was estimated as of the date of the grant by using the Black-Scholes option pricing model with the following assumptions:

	August 31 2022	August 31 2021	August 31 2023	August 31 2022
Expected volatility	98% - 119 %	133% - 134 %	93% - 105 %	98% - 119 %
Risk-free interest rate	0.78% - 3.30 %	0.42% - 0.85 %	3.30% - 4.69 %	0.78% - 3.30 %
Expected life	5 years	5 years	2.5 - 5 years	5 years
Dividend yield	0	0	0 %	0 %
Estimated fair value per option	\$2.25 - \$5.10	\$4.00 - \$4.86	0.33 - 2.32	\$2.25 - \$5.10

44

[Table of Contents](#)

Stock-based compensation expense for the fiscal years ended August 31, 2023 and August 31, 2022 totalled \$170,382 and \$752,591, respectively. Of the current fiscal year expense, \$89,057 relates to current year option awards, \$25,194 relates to the repricing of 267,969 options disclosed above, and \$56,131 relates to the vesting of options awarded in previous fiscal years.

## 17. 16. Commitments, Significant Contracts and Contingencies

### Right of Use Assets - Operating Lease

Corporate offices and R&D lab space is leased in Kelowna, British Columbia, Canada which lease was renewed during fiscal 2023 until November 15, 2023, with an optional five-year extension. November 15, 2028. In addition to minimum lease payments, the lease requires us to pay property taxes and operating costs which are subject to annual adjustments.

	August 31, 2022	August 31, 2021	August 31, 2023	August 31, 2022
Right of use assets - operating leases			\$ 52,444	\$ 91,041
Amortization			(41,564)	(38,597)
Extension-related remeasurement			156,566	
Total lease assets			\$ 167,446	\$ 52,444
	\$	\$		
Right of use assets - operating leases:	91,041	126,920		
Amortization	(38,597)	(35,879)		
Total lease assets	52,444	91,041		
Liabilities:	89,393	125,431	\$ 49,988	\$ 89,393
Lease payments	(44,600)	(43,950)	(44,814)	(44,600)

Interest accretion	5,195	7,912	2,227	5,195
Extension-related remeasurement			156,566	
Total lease liabilities	49,988	89,393	\$ 163,967	\$ 49,988
Operating lease cost	\$ 52,444	\$ 91,041	\$ 167,446	\$ 52,444
Operating cash flows for lease	\$ 44,599	\$ 43,950	\$ 44,814	\$ 44,599
Remaining lease term	1.17 Years	2.1 Years	5.17 Years	1.17 Years
Discount rate	7.25%	7.25%	7.25%	7.25%

Pursuant to the terms of the Company's lease agreements in effect at August 31, 2022 August 31, 2023, the following table summarizes the Company's maturities of operating lease liabilities:

	\$	
2023	44,815	
2024	7,469	35,840
2025		37,094
2026		37,345
2027		38,642
2028		38,901
2029		6,483
Thereafter	-	-
Total lease payments	52,284	194,305
Less: imputed interest	(2,296)	(30,338)
Present value of operating lease liabilities	49,988	163,967
Less: current obligations under leases	(42,587)	(27,794)
Total	7,401	
Non-Current Portion		136,173

45

[Table of Contents](#)

## 18. 17. Segment Information

The Company's operations involve the development and usage, including licensing, of DehydraTECH. Lexaria is centrally managed and its chief operating decision makers, being the President and the CEO, use the consolidated and other financial information supplemented by revenue information by category of business-to-business product production and technology licensing to make operational decisions and to assess the performance of the Company. The Company has identified two four reportable segments: Intellectual Property Licensing, B2B Production, Research and B2B Production. Development and Corporate. Licensing revenues are significantly concentrated on three licensees.

Year Ended August 31, 2023	IP Licensing	B2B Product	R&D	Corporate	Consolidated Total
Revenue	\$ 146,800	\$ 44,167	\$ 35,241	\$ -	\$ 226,208
Cost of goods sold	-	(31,500)	-	-	\$ (31,500)
Operating expenses	(70,677)	(282,709)	(3,666,721)	(2,708,623)	\$ (6,728,730)
Other income/(expense)		-	-	(178,503)	\$ (178,503)
Segment loss	\$ 76,123	\$ (270,042)	\$ (3,631,480)	\$ (2,887,126)	\$ (6,712,525)

<b>Total assets</b>	<b>\$</b>	<b>103,336</b>	<b>\$</b>	<b>65,573</b>	<b>\$</b>	<b>187,532</b>	<b>\$</b>	<b>2,729,545</b>	<b>\$</b>	<b>3,083,986</b>
										<b>Consolidated</b>
<b>Year Ended August 31, 2022</b>		<b>IP Licensing</b>		<b>B2B Product</b>		<b>R&amp;D</b>		<b>Corporate</b>		<b>Total</b>
Revenue	\$	54,560	\$	113,438	\$	54,800	\$	32,599	\$	255,397
Cost of goods sold		-		(71,841)		-		-		(71,841)
Operating expenses		(307,809)		(731,427)		(1,842,675)		(4,685,298)		(7,567,209)
Segment loss	\$	(253,249)	\$	(689,830)	\$	(1,787,875)	\$	(4,652,699)	\$	(7,383,653)
<b>Total assets</b>	<b>\$</b>	<b>161,307</b>	<b>\$</b>	<b>205,956</b>	<b>\$</b>	<b>247,345</b>	<b>\$</b>	<b>7,219,319</b>	<b>\$</b>	<b>7,833,927</b>
				<b>Net</b>				<b>Net</b>		
<b>Capital Asset by Region</b>	<b>Cost</b>	<b>Addition</b>	<b>Balance</b>	<b>Cost</b>	<b>Addition</b>	<b>Balance</b>	<b>Total Net</b>			
<b>Year Ended August 31, 2023</b>	<b>US</b>	<b>US</b>	<b>US</b>	<b>Canada</b>	<b>Canada</b>	<b>Canada</b>	<b>Balance</b>			
Leasehold Improvements	\$ -	\$ -	\$ -	\$ 259,981	\$ -	\$ 11,258	\$ 11,258			
Computers	-	-	-	70,781	-	4,625	4,625			
Furniture & Fixtures	-	-	-	31,126	-	1,869	1,869			
Lab Equipment	140,490	33,748	122,855	193,185	-	113,536	236,391			
	<b>\$ 140,490</b>	<b>\$ 33,748</b>	<b>\$ 122,855</b>	<b>\$ 555,073</b>	<b>\$ -</b>	<b>\$ 131,288</b>	<b>\$ 254,143</b>			
			<b>Net</b>			<b>Net</b>				
<b>Capital Asset by Region</b>	<b>Cost</b>	<b>Addition</b>	<b>Balance</b>	<b>Cost</b>	<b>Addition</b>	<b>Balance</b>	<b>Total Net</b>			
<b>Year Ended August 31, 2022</b>	<b>US</b>	<b>US</b>	<b>US</b>	<b>Canada</b>	<b>Canada</b>	<b>Canada</b>	<b>Balance</b>			
Leasehold Improvements	\$ -	\$ -	\$ -	\$ 259,981	\$ -	\$ 65,296	\$ 65,296			
Computers	-	-	-	63,964	6,817	9,357	9,357			
Furniture & Fixtures	-	-	-	31,126	-	8,288	8,288			
Lab Equipment	98,050	42,375	100,031	193,185	-	132,533	232,564			
	<b>\$ 98,050</b>	<b>\$ 42,375</b>	<b>\$ 100,031</b>	<b>\$ 548,256</b>	<b>\$ 6,817</b>	<b>\$ 215,474</b>	<b>\$ 315,505</b>			

#### 18. Subsequent Events

<b>For year ended August 31, 2022</b>	<b>IP Licensing</b>	<b>B2B Product</b>	<b>R &amp; D</b>	<b>Corporate</b>	<b>Consolidated Total</b>
	<b>\$</b>	<b>\$</b>	<b>&amp;</b>	<b>\$</b>	<b>\$</b>
<b>External revenue</b>	<b>54,560</b>	<b>113,438</b>	<b>54,800</b>	<b>32,599</b>	<b>255,397</b>
<b>Cost of goods sold</b>		<b>(71,841)</b>			<b>(71,841)</b>
<b>Operating expenses</b>	<b>(307,809)</b>	<b>(731,427)</b>	<b>(1,842,675 )</b>	<b>(4,685,298)</b>	<b>(7,567,209)</b>
<b>Segment loss</b>	<b>(253,249)</b>	<b>(689,830)</b>	<b>(1,787,875 )</b>	<b>(4,652,699)</b>	<b>(7,383,653)</b>
<b>Total assets</b>	<b>161,307</b>	<b>205,956</b>	<b>247,345</b>	<b>7,219,319</b>	<b>7,833,927</b>

On October 3, 2023, the Company entered into a securities purchase agreement with a single healthcare-focused institutional investor to purchase 889,272 shares of common stock and 729,058 pre-funded warrants in a registered direct offering. In a concurrent private placement, the Company also agreed to issue and sell to the investor warrants to purchase up to 1,618,330 shares of common stock. The combined effective offering price for each share of common stock (or pre-funded warrant in lieu thereof) and accompanying warrant was \$0.97 (to note the pre-funded warrants were issued at a price of \$0.9699 and have an exercise price of \$0.0001). The warrants will become exercisable six months from issuance, expire five and a half years from the issuance date, and have an exercise price of \$0.97 per share.

The net proceeds to the Company from the registered direct offering and concurrent private placement totaled \$1.29 million, after deducting placement agent fees and other estimated offering expenses payable by the Company.

To date all of the pre-funded warrants have been exercised, resulting in an issuance by the Company of an aggregate 729,058 common shares for gross proceeds of approx. \$73. The shares issued pursuant to the pre-funded warrant exercises were registered pursuant to an S-3 registration statement (333-262402).

Subsequent to the fiscal year end, the Company issued an aggregate 566,661 common shares pursuant to the exercise of warrants that were issued under our May 11, 2023 financing, at an exercise price of \$0.95 per share for gross proceeds of \$538,328 of which \$29,569 is currently held in Lexaria's trust account with

the warrant agent. The shares issued pursuant to the warrant exercise were registered pursuant to an S-1 registration statement (333-271096). Subsequent to the fiscal year end, the Company issued an aggregate 85,000 options for the issuance of 85,000 shares at an exercise price of \$1.15 and exercisable for a five-year term expiring October 27, 2028. The options were issued pursuant to the Company's registered equity incentive plan.

## Table of Contents

	IP		B2B		Consolidated	
	Licensing		Product		Corporate	
	\$		\$		\$	
For year ended August 31, 2021						
External revenue	334,974		297,279		90,485	
Cost of goods sold	-		(175,346)		-	
Operating expenses	(1,864,527)		(1,325,809)		(1,521,187)	
Segment loss	(1,529,553)		(1,203,876)		(1,430,702)	
Total assets	526,486		62,291		12,678,040	
	Net		Net		Net	
Capital Asset by Region	Balance		Balance		Balance	
Year Ended August 31, 2022	US		Canada		Canada	
	\$		\$		\$	
Leasehold Improvements	-	-	-	259,981	-	65,296
Computers	-	-	-	63,964	6,817	9,357
Furniture Fixtures Equipment	-	-	-	31,126	-	8,288
Lab Equipment	98,050	42,375	100,031	193,185	-	132,533
	98,050	42,375	100,031	548,256	6,817	215,474
Year Ended August 31, 2021						
Leasehold Improvements	-	-	-	259,981	-	119,333
Computers	-	-	-	63,964	-	12,414
Furniture Fixtures Equipment	3,094	(3,904)	-	31,126	-	14,706
Lab Equipment	98,050	-	69,580	193,185	-	152,180
	101,144	(3,904)	69,580	548,256	-	298,633

## 19. Discontinued Operations

On November 19, 2020, the Company entered a definitive asset sale agreement through its wholly-owned subsidiary Lexaria CanPharm ULC to sell certain assets for gross proceeds of C\$3,850,000.

The sale closed on December 10, 2020, with the Company receiving C\$350,000 in cash, 6,031,363 restricted common shares at a fair value price of C\$500,000 as the first of three required equity-based payments, a promissory note having a principal amount of C\$2,000,000 and bearing interest at the rate of 10% per annum. The promissory note was included at its nominal value of \$Nil and any future receipts of interest and principal will be recorded as income in the period. Pursuant to the terms of the transaction the Company will receive equity-based payments in two tranches of C\$500,000 in common shares of Hill Street Beverage Company issued at eight months and sixteen months after the closing date.

The Company received the second tranche of shares on August 9, 2021 as per the sale agreement. Based on the agreed terms, the value of the 5,882,353 shares issued was \$390,533 (C\$500,000). An over-allotment of 1,693,405 shares with a value of \$122,426 (C\$143,939) were received at this time and was applied to the future issuance of the third tranche with a reduction in the outstanding amount receivable. The third and final tranche of 4,188,948 shares was received on April 8, 2022.

The gain on the transaction is presented below:

	\$
Gain on asset disposal	-
Book value of assets sold	-
Cash consideration	273,373
Shares received	1,249,331



Promissory note	-
	1,522,704
	48 46

## [Table of Contents](#)

The financial results of the group of assets sold are presented as income (loss) from discontinued operations, net of income taxes in our consolidated statement of income. The following table presents financial results of the assets:

	August 31 2021
	\$
Revenue	3,000
Operating expenses	(25,000)
Net income (loss)	(22,000)

The following table presents cash flows of discontinued operations:

	August 31 2021
	\$
Cash flows used in discontinued operating activities	
Net income	(22,000)
Change in working capital	2,500
Net cash provided by (used in) discontinued operating activities	3,000
Net cash provided by (used in) discontinued operations	3,000

## 20. Subsequent Events

On September 2, 2022, Catherine Turkel, PharmD, PhD was appointed to our Board and was awarded 3,400 options at a strike price of \$3.04, vesting immediately with a 5 year term and a value of \$7,757 using the Black Scholes pricing model.

Subsequent to the year ended August 31, 2022, the Company issued 41,200 stock options to the Company's independent directors at a strike price of \$1.96, vesting immediately with a 5 year term and a value of \$61,109 using the Black Scholes pricing model.

On November 5, 2022, 7,500 warrants with a strike price of \$24.00 expired.

## [Table of Contents](#)

### Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

During the year ended August 31, 2022, our principal accountants indicated that they have declined to stand for re-election after the completion of the current audit of our fiscal year 2022. During the past two previous years there have had been no adverse opinions, disclaimer of opinion or qualification or modification as to uncertainty, audit scope or accounting principles. The decision to change accountants was recommended by the Company's Audit Committee and approved by our Board. There were no disagreements related to accounting principles or practices, financial statement disclosure, internal controls or auditing scope or procedure during the two fiscal years and their respective interim periods.

### Item 9A. Controls and Procedures

#### Management's Report on Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. This information is accumulated and communicated to our management, including our Chief Executive Officer (also our Principal Executive Officer) and currently our Chief Financial Officer (also our acting Principal Financial and Accounting Officer) and our outsourced Chief Financial Officer to allow for timely decisions regarding required disclosure.

As of August 31, 2022 August 31, 2023, the end of our fiscal year covered by this report, we carried out an evaluation under the supervision and with the participation of our CEO and outsourced CFO of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the foregoing, our CEO and outsourced CFO concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

#### Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Estimates and judgments by management are required to assess the expected benefits and related costs of control procedures. The objectives of internal control include providing management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit the preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States. Management has assessed the effectiveness of our internal control over financial reporting as of August 31, 2022 August 31, 2023. In making this assessment, management used the criteria set forth in the report entitled "Internal Control — Integrated Framework" published by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Management has concluded that as of August 31, 2022 August 31, 2023, our internal control over financial reporting is effective in providing reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with US GAAP. Our management reviewed the results of their assessment with our Board.

#### Inherent Limitations on Effectiveness of Controls

Internal control over financial reporting has inherent limitations which include but is are not limited to the use of independent professionals for advice and guidance, interpretation of existing and/or changing rules and principles, segregation of management duties, scale of organization, and personnel factors. It is a process which involves human diligence and compliance and may be subject to lapses in judgment and breakdowns resulting from human failures. It can be circumvented by collusion or improper management override. Internal control over financial reporting may not prevent or detect misstatements on a timely basis. These inherent limitations are known features of the financial reporting process and it is possible to design into the process safeguards to reduce, though not eliminate, these risks. Systems determined to be effective can provide only reasonable assurances with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

#### Changes in Internal Control over Financial Reporting

The fundamental controls and control processes remained consistent with prior years during the year ended August 31, 2022 August 31, 2023. In April 2021, the former CFO, Mr. Allan Spissinger, was replaced by the former controller, Mr. Greg Downey, which required some of our controls and controls processes to be temporarily revised and updated based on personnel changes within the Company. There have been no In June 2023, Mr. Downey was replaced with an outsourced CFO, and Chris Bunka accepted the role of Principal Financial Officer. However, this change has not resulted in any changes in our internal controls over financial reporting that occurred during the year ended August 31, 2022 August 31, 2023, that have materially or are reasonably likely to materially affect our internal controls over financial reporting.

#### Item 9B. Other Information

None.

### PART III

#### Item 10. Directors, Executive Officers and Corporate Governance

All directors of our Company hold office until the next annual meeting of the security holders or until their successors have been elected and qualified. The officers of our Company are appointed by our Board and hold office until their death, resignation, or removal from office. Our directors and executive officers are as follows:

Name	Position Held with our Company	Age	Date First Elected Or Appointed	Date of Resignation
Christopher Bunka	Chairman, Chief Executive Officer, and Director	61 62	Oct. 26, 2006 Feb. 14, 2007	-
John Docherty	President and Director	53	Apr. 15, 2015 Apr. 29, 2016	-
Gregory Downey	Chief Financial Officer	62 63	Apr. 15, 2021	- June 6, 2023
Nicholas Baxter	Director	68 69	Jul. 8, 2011	-
Ted McKechnie	Director	75 76	Sept. 16, 2015	-
Dr. Catherine C. Turkel	Director	63	Sept. 2, 2022	-
Al Reese, Jr.	Director	73 74	Jan 14, 2021	-
Catherine Turkel	Director	62	Sept. 2, 2022	-

#### Business Experience

The following is a brief account of the business and education experience of each current director and executive officer during the past five years, indicating each person's principal occupation during the period.

#### Mr. Christopher Bunka – Chairman, Chief Executive Officer and Director

Mr. Bunka has been Chairman of the Board and CEO since 2006 and was primarily responsible for the corporate pivot from older business activities to bioscience. Mr. Bunka is a serial entrepreneur and has been involved in several private and public companies since the late 1980's. He was well known for more than a decade as a part-time business commentator in print and radio, as well as an author. He has extensive experience in the capital markets, corporate governance, project acquisition and corporate finance. He is a named inventor on several of Lexaria's pending patents.

Since 1988, Mr. Bunka has been the CEO of CAB Financial Services Ltd., a private holding company located in Kelowna, BC, Canada. He is a venture capitalist and corporate consultant.

#### Mr. John Docherty – President and Director

Mr. Docherty was appointed President of Lexaria effective April 15, 2015. Prior to Lexaria Mr. Docherty was former President and Chief Operating Officer of Helix BioPharma Corp. (TSX: HBP), where he led the company's pharmaceutical development programs for its plant and recombinantly derived therapeutic protein product candidates.

Mr. Docherty is a senior operations and management executive with over 20 years' experience in the pharmaceutical and biopharmaceutical sectors. He has worked with large multinational companies and emerging, private and publicly held start-ups. At Helix, Mr. Docherty was instrumental in the areas of investor/stakeholder relations, capital raising, capital markets development, strategic partnering, regulatory authority interactions and media relations. He also served as a management member of its board of directors. Previously, Mr. Docherty was President and a board member of PharmaDerm Laboratories Ltd., a Canadian drug delivery company that developed unique microencapsulation formulation technologies for use with a range of active compounds.

Mr. Docherty also held positions with companies such as Astra Pharma Inc., Nu-Pharm Inc. and PriceWaterhouseCoopers' PricewaterhouseCoopers' former global pharmaceutical industry consulting practice. He is a named inventor on issued and pending patents and he has a M.Sc. in pharmacology and a B.Sc. in Toxicology from the University of Toronto. He has served as a director of Lexaria since April 29, 2016.

[Table of Contents](#)
**Mr. Gregory Downey – Former Chief Financial Officer**

Mr. Downey joined the Company was appointed Chief Financial Officer in April 2021 having joined the Company as Controller in January 2019 as Controller, and was then appointed Chief Financial Officer in April 2021 which position he resigned from in June 2023. Mr. Downey brings brought over 35 years of diverse financial experience in the mining, oil and gas, manufacturing, construction, and in the public sector as well as providing business advisory and financial accounting services to several mid-sized organizations. In addition, Mr. Downey has had a wide range of executive corporate experience having acted as the Chief Financial Officer and director of public companies. Mr. Downey obtained his Certified Management Accountant (CMA) designation in 1992 and is a member of the Chartered Professional Accountants (CPA) of British Columbia.

**Mr. Nicholas Baxter - Director**

Mr. Baxter was appointed as a member of the board of directors of Lexaria Corp. in 2009. Mr. Baxter received a Bachelor of Science (Honours) from the University of Liverpool in 1975 and has worked on oil & gas projects in many areas of the world. Since the 1980's, he has worked with companies in the public markets both in the U.K. and in Canada. Mr. Baxter brings extensive real-world experience as a board member.

**Mr. Ted McKechnie – Director**

Mr. McKechnie is a well-recognized thought leader in the Canadian food industry. In the past, Mr. McKechnie was president of Maple Leaf Foods, an owner and senior executive at Humpty Dumpty Snack Foods and a senior leader at Pepsi Co. After a distinguished career as an executive and marketer specializing in food manufacturing, he now focuses on moving the Canadian food sector into the future. Aside from being the chairman of Food Starter's board, Mr. McKechnie is also the Chairman/CEO of The Davies Group and William Davies Consulting Inc. He is also a chairman of the board for Advanced Technology For Food Manufacturing, and serves on the Board Of Governors for St Jerome's University. Mr. McKechnie is often called upon by think tanks, government was awarded Philip Morris Chairman's Award for "recognition of extraordinary contributions having a significant and industry leaders to offer insights lasting impact on how to grow the food sector and add value to the Canadian economy. Corporation".

[Table of Contents](#)
**Mr. Al Reese Jr. - Director**

Mr. Reese has over 40 years 50 years' experience in public and private businesses including as CFO of a formerly Nasdaq-listed energy company where he arranged finance transactions totalling over \$10 billion dollars during his 20-year tenure. Mr. Reese was a Director and Chairman of the Audit Committee of a community bank in Texas for ten years until such time as it was acquired by a larger banking group in 2018. He currently serves as an Independent Director and Chairman of the Audit Committee for a privately held insurance company headquartered in The Woodlands, Texas. He has directed over 50 acquisitions and financings from as small as a few hundred thousand dollars to multibillion dollar transactions in both the domestic and international arenas. He has directed or participated in numerous due diligence examinations, both domestic Mr. Reese is also President and foreign Chairman of a family charitable 501(c)-3 foundation and has held the responsibility for integrating the finance, accounting and managerial practices for acquisitions and dispositions in both domestic and foreign operations in both public and private companies. Interim Chairman of a charitable 501(c)-3 entity that focus on Bible literacy.

Mr. Reese is a Certified Public Accountant (1974) and received his Bachelor of Business Administration degree from Texas A&M University in 1971, and his MBA from University of Houston in 1977. He has extensive experience at a senior level in financial services, finance transactions, investor relations, and more.

**Ms. Dr. Catherine C. Turkel – Director**

Ms. Dr. Turkel, PharmD, PhD has more than 20 years' experience as an executive in start-up and mid-size pharma/biotech companies. She was Founder and CEO of Nezee Therapeutics, and served as President and R&D head at Novus Therapeutics (renamed Eledon Pharmaceuticals – Nasdaq: ELDN). She currently

acts as an independent Board Director at Object Pharma (private) and Prostate Cancer Research (nonprofit; member of the Translational Scientific Advisory Committee) and is a Dean Advisor at Chapman University School of Pharmacy.

Dr. Turkel has formulated registration & commercial strategic plans and has led global development programs for pharmaceutical and biologic treatments from phase 1 through phase 4 related to Neurosciences, Pain, Cardiovascular, Psychiatry, Rare Diseases, Ophthalmology, Aesthetics, Urology and Otolaryngology therapeutic areas. Dr. Turkel designed and led Allergan's (now AbbVie -NYSE: ABBV) pioneering BOTOX® Chronic Migraine registration program, generating revenue of more than a billion dollars.

#### Family Relationships

There are no family relationships among any of our officers or directors.

49

#### [Table of Contents](#)

#### Involvement in Certain Legal Proceedings

None of our directors, executive officers, promoters, or control persons has been involved in any of the following events during the past five years:

- 1) A petition under the Federal bankruptcy laws or any state insolvency law was filed by or against, or a receiver, fiscal agent or similar officer was appointed by a court for the business or property of such person, or any partnership in which he was a general partner at or within two years before the time of such filing, or any corporation or business association of which he was an executive officer at or within two years before the time of such filing.
- 2) A conviction in a criminal proceeding or is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses).
- 3) The subject of any order, judgment, or decree, not subsequently reversed, suspended, or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from, or otherwise limiting, the following activities:
  - i. Acting as a futures commission merchant, introducing broker, commodity trading advisor, commodity pool operator, floor broker, leverage transaction merchant, any other person regulated by the Commodity Futures Trading Commission, or an associated person of any of the foregoing, or as an investment adviser, underwriter, broker or dealer in securities, or as an affiliated person, director or employee of any investment company, bank, savings and loan association or insurance company, or engaging in or continuing any conduct or practice in connection with such activity, or
  - ii. Engaging in any type of business practice; or
  - iii. Engaging in any activity in connection with the purchase or sale of any security or commodity or in connection with any violation of Federal or State securities laws or Federal commodities laws.

52

#### [Table of Contents](#)

- 4) The subject of any order, judgment, or decree, not subsequently reversed, suspended, or vacated, of any Federal or State authority barring, suspending or otherwise limiting for more than 60 days the right of such person to engage in any activity described in paragraph (f)(3)(i) of this section, or to be associated with persons engaged in any such activity.

- 5) Found by a court of competent jurisdiction in a civil action or by the SEC to have violated any Federal or State securities law, and the judgment in such civil action or finding by the SEC has not been subsequently reversed, suspended, or vacated.
- 6) Found by a court of competent jurisdiction in a civil action or by the Commodity Futures Trading Commission to have violated any Federal commodities law, and the judgment in such civil action or finding by the Commodity Futures Trading Commission has not been subsequently reversed, suspended, or vacated.
- 7) The subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended, or vacated, relating to an alleged violation of:
  - i. Any Federal or State securities or commodities law or regulation; or
  - ii. Any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order; or
  - iii. Any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity.
- 8) The subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act (15 U.S.C. 78c(a)(26))), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act (7 U.S.C. 1(a)(29))), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

#### Delinquent Section 16(a) Reports

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers and directors and persons who own more than 10% of our common stock to file with the Securities and Exchange Commission initial statements of beneficial ownership, reports of changes in ownership and annual reports concerning their ownership of our common stock and other equity securities, on Forms 3, 4 and 5 respectively. Executive officers, directors and greater than 10% shareholders are required by the SEC regulations to furnish us with copies of all Section 16(a) reports that they file.

Based solely on our review of the copies of such forms received by us, or written representations from certain reporting persons, we believe that during fiscal year ended August 31, 2022 August 31, 2023, all filing requirements applicable to our officers, directors, and beneficial owners of greater than 10% percent were complied with.

[Table of Contents](#)

#### Code of Ethics

We adopted a Code of Ethics applicable to our senior financial officers and certain other finance executives, which is a “code of ethics” as defined by applicable rules of the SEC. Our Code of Ethics is attached as an exhibit to our Form SB-2 filed on September 20, 2007. If we make any amendments to our Code of Ethics other than technical, administrative, or other non-substantive amendments, or grant any waivers, including implicit waivers, from a provision of our Code of Ethics to our Chief Executive Officer, Chief Financial Officer, or certain other finance executives, we will disclose the nature of the amendment or waiver, its effective date and to whom it applies in a Current Report on Form 8-K filed with the SEC.

#### Board and Committee Meetings

Our Board held seven nine formal meetings and several informal meetings during the year ended August 31, 2022 August 31, 2023. All proceedings of the board of directors taken at a formal meeting were evidenced by way of minutes taken at such meetings. All other matters approved by our Board outside of any formal meeting were evidenced by resolutions consented to by all the directors. Such resolutions consented to in writing by the directors entitled to vote on

that resolution at a meeting of the directors are, according to the Nevada General Corporate Law and our Bylaws, as valid and effective as if they had been passed at a meeting of the directors duly called and held.

#### Nomination Process

As of August 31, 2022 August 31, 2023, the Company had an active Governance and Nominating Committee. If stakeholders wish to recommend candidates for our Board, they may do so by sending communications to the Governance and Nominating Committee at the address on the cover of this annual report.

53

#### [Table of Contents](#)

#### Audit and Finance Committee and Audit Committee Financial Expert

The audit and finance committee are governed by the audit and finance committee charter as adopted on December 8, 2020. The committee is composed of Mr. Al Reese, Jr., Mr. Ted McKechnie, and Mr. Nicholas Baxter. Baxter and the members held four formal meetings during the year ended August 31, 2023. Mr. Reese, a CPA, qualifies as an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K, and is "independent" as the term is used in Item 7(d)(3)(iv) of Schedule 14A under the Securities Exchange Act of 1934, as amended. Prior to Mr. Reese's appointment in January 2021, Mr. Bunka acted as a member of the audit and finance committee and was not "independent" pursuant to Nasdaq independence standards as he is actively involved in the daily management of the Company as CEO. A copy of the Audit & Finance Committee charter can be downloaded from the Company's website under our Investors/Governance/Governance Documents tab.

Our management is responsible for preparing our financial statements and our independent registered public accounting firm is responsible for auditing those financial statements. Our audit and finance committee consults with management and our independent registered public accounting firm and may initiate inquiries into various aspects of our financial affairs. They are responsible for retaining, evaluating and for the engagement of our independent registered public accounting firm and for the approval of professional services provided by them. However, it is not the duty of our audit and finance committee to determine that our financial statements are complete and accurate and in accordance with generally accepted accounting principles.

#### Compensation Committee

Our compensation committee Compensation Committee was created on July 2, 2020, the members of which are Mr. Baxter, Dr. Turkel and Mr. McKechnie, with both all directors being "independent" pursuant to Nasdaq independence standards. The compensation committee Compensation Committee operates under a written charter and its purpose is to review, consider, research, and recommend compensation for the Company's executive management, taking into consideration milestones achieved, the compensation issued by companies of similar size and the overall financial health of the Company. The committee is also responsible for reviewing and approving employment and benefits agreements and any executive compensation information incorporated into the Company's periodic reports. The Compensation Committee held five formal meetings during the fiscal year. A copy of the Compensation Committee compensation committee charter can be downloaded from the Company's website under our Investors/Governance/Governance Documents tab.

#### Governance and Nominating Committee

The governance Governance and nominating committee Nominating Committee operate pursuant to a charter created on December 8, 2020. The current members of the committee are Mr. Reese Jr. and Mr. Baxter, Dr. Turkel, both being independent directors of the Company. The committee's purpose is to assist our Board in fulfilling its responsibilities by: (i) being satisfied that corporate governance guidelines are adopted, applied and disclosed including director qualification standards, responsibilities and access to management and independent advisors, director compensation, orientation and continuing education, and annual performance evaluation of the board; (ii) identifying individuals qualified to become new board members and recommending to the board the nominees for each annual meeting of shareholders of the Corporation; and (iii) such other matters delegated to the committee by the board. The Governance and Nominating Committee held two formal meetings during the fiscal year. A copy of the Governance & Nominating Committee charter can be downloaded from the Company's website under our Investors/Governance/Governance Documents tab.

51

#### [Table of Contents](#)



Our Board plays a critical role in guiding the strategic direction and overseeing the management of our business. We seek to attract and retain highly qualified directors who have sufficient time to engage in the activities of our Board and to understand and enhance their knowledge of our industry and business plans. In evaluating the suitability of individual candidates, the **governance Governance** and **nominating committee Nominating Committee** and our Board may take into account many factors, including: relevant education, experience and expertise; knowledge of the Company and the issues it faces; whether the candidate will strengthen the board and remedy any perceived deficiencies in the specific criteria; moral and ethical character; diversity of expertise and experience in substantive matters pertaining to our business relative to other board members; diversity of background and perspective, including, but not limited to, with respect to age, gender, race, place of residence and specialized experience; and any other relevant qualifications, attributes or skills. The core competencies of directors should address accounting or finance experience, market familiarity, business or management experience, industry knowledge, customer-base experience or perspective, crisis response, leadership, and/or strategic planning.

Our Board and **governance Governance** and **nominating committee Nominating Committee** evaluate each individual in the context of the board as a whole, with the objective of assembling a group that can best perpetuate the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas.

#### Item 11. Executive Compensation

The particulars of the compensation paid to the following persons:

- our principal executive officer;
- each of our two most highly compensated executive officers who were serving as executive officers at the end of the years ended **August 31, 2022 August 31, 2023**, and **August 31, 2021 August 31, 2022**, and;
- up to two additional individuals for whom disclosure would have been provided under (b) but for the fact that the individual was not serving as our executive officer at the end of the years ended **August 31, 2022 August 31, 2023**, and **August 31, 2021 August 31, 2022**,

54

#### [Table of Contents](#)

collectively referred to as the named executive officers of our Company, are set out in the following summary compensation table. There is no disclosure provided for any named executive officer, other than our principal executive officers, whose total compensation did not exceed \$100,000 for the respective fiscal year:

SUMMARY COMPENSATION TABLE									
Name and Principal Position	Year	Salary	Bonus	Stock Awards	Option Awards <sup>(5)</sup>	Non-Equity Incentive Plan Compensation	Non-Qualified Deferred Compensation Earnings	All Other Compensation	Total
		\$	\$	\$	\$	\$	\$	\$	\$
Christopher Bunka Chairman, Chief Executive Officer & Director <sup>(1)</sup>	2022	-	50,401	-	143,968	-	-	289,505	483,874
	2021	-	92,676	-	119,630	-	-	281,810	494,116
John Docherty President & Director <sup>(2)</sup>	2022	218,315	44,542	-	143,968	-	-	32,887	439,712
	2021	146,443	82,652	-	83,419	-	-	97,760	410,274
Greg Downey Chief Financial Officer <sup>(3)</sup>	2022	117,284	9,131	-	116,036	-	-	-	242,451
	2021	84,688	-	-	34,844	-	-	-	119,352
Allan Spissinger	2022	-	-	-	-	-	-	4,122	4,122

former Chief Financial Officer <sup>(4)</sup>	2021	-	-	-	-	-	-	109,579	109,579
---	------	---	---	---	---	---	---	---------	---------

SUMMARY COMPENSATION TABLE									
Name and Principal Position	Year			Stock Awards	Option Awards <sup>(5)</sup>	Non-Equity Incentive Plan Compensation	Non-Qualified Deferred Compensation		Total
		Salary	Bonus				Earnings	All Other Compensation	
		\$	\$	\$	\$	\$	\$	\$	\$
Christopher Bunka <sup>(1)</sup>	2023	-	10,487	-	-	-	-	280,706	291,193
Chairman, Chief Executive Officer & Director	2022	-	50,401	-	143,968	-	-	289,505	483,874
John Docherty <sup>(2)</sup>	2023	257,399	33,066	-	-	-	-	-	290,465
President & Director	2022	218,315	44,542	-	143,968	-	-	32,887	439,712
Greg Downey <sup>(3)</sup>	2023	172,889	11,022	-	-	-	-	-	183,911
Former Chief Financial Officer	2022	117,284	9,131	-	116,036	-	-	-	242,451
Allan Spissinger <sup>(4)</sup>	2023	-	-	-	-	-	-	-	-
former Chief Financial Officer	2022	-	-	-	-	-	-	4,122	4,122

- (1) Mr. Bunka was appointed as Chairman, President, Chief Executive Officer, and director on October 26, 2006. We pay Mr. Bunka a consulting fee through CAB Financial Services Ltd., where he is also the Chief Executive Officer.
- (2) Mr. Docherty became President on April 15, 2015, and a director on April 29, 2016. We pay Mr. Docherty as an employee effective January 1, 2022, and previously through consulting fees paid to his wholly owned company Docherty Management Ltd.
- (3) Mr. Downey became was Chief Financial Officer on from April 15, 2021 to June 6, 2023 and is was considered an employee of the Company.
- (4) Mr. Spissinger was replaced as CFO effective April 15, 2021 and remained with the company until the end of his contract on May 31, 2021. We paid Mr. Spissinger a consulting fee through his wholly owned company M&E Services Ltd.
- (5) The fair value of the stock options awarded was estimated using the Black-Scholes option pricing model.

## [Table of Contents](#)

### Consulting and Employment Agreements

Other than as set out in this annual report on Form 10-K we have not entered into any employment or consulting agreements with any of our current officers or directors.

#### Mr. Chris Bunka, CEO

The Company secured a 3-year term renewable management contract with Mr. Bunka effective January 1, 2022, with a base compensation of C\$29,706 per month with an annual increase of 1.25 times the annual Canadian inflation rate. A performance bonus of up to 50% of 12 times the monthly fee may be payable upon the completion of certain performance criteria as determined by our Board. Participation in the Company's stock option plan is also included.

The contract entitles Mr. Bunka to compensation of 2% of the consideration of the total value of any subsidiary sold and upon a change of control is entitled to 26 times the monthly fee, excluding certain circumstances. The termination clause requires 15 months written notice plus one additional month's written notice for each completed year of service for terminating the contract without cause. Payment may be made in lieu of and if so, the Company would be liable for a termination payment of 15 times the monthly fee plus one additional month's payment for each completed year of service of up to a maximum payment of 24 times the monthly fee.

[Table of Contents](#)
**Mr. John Docherty, President**

The Company entered into a 3-year term renewable executive employment agreement with Mr. John Docherty for a management contract for C\$323,176,310,001 per year, effective January 1, 2022, with an annual increase of 1.25 times the annual Canadian inflation rate. A performance bonus equal to 50% of the annual compensation may be payable upon the completion of certain performance criteria as determined by our Board. Participation in the Company's stock option plan is also included. An annual professional development allowance of C\$15,000 is also available to Mr. Docherty.

The contract for the services includes entitlement to compensation of 2% of the consideration received by the Company from the sale of any subsidiary, excluding certain circumstances. Upon the occurrence of a change of control, Mr. Docherty will be entitled to a lump payment of 21 months pay subject to certain exemptions. The contract specifies that 60 days written notice for termination by Mr. Docherty and termination without cause by the Company would result in 12 months pay in lieu of notice plus one additional month's written notice or payment in lieu, for each completed year of service up to a maximum payment of 24 months.

**Mr. Greg Downey, CFO**

On April 15, 2021, the Company entered into an employment contract with Mr. Downey with annual compensation of C\$144,000 with a 10% annual increase. A performance bonus equal to 50% of the annual compensation may be payable upon the completion of certain performance criteria. Mr. Downey is entitled to participate in the Company's stock option plan and an annual professional development allowance of C\$5,000 per year.

Pursuant to the termination provisions of Mr. Downey's employment contract, the Company paid Mr. Downey is eligible for incentive compensation four months of 1% of the consideration received from the sale of any subsidiary excluding certain circumstances. Upon the occurrence of a change of control, Mr. Downey will also be entitled to a lump payment of sixteen (16) times his monthly salary. Termination without cause requires a minimum of 3 months notice or payment salary in lieu plus one month of notice, two additional months salary for every year or partial year for each additional year of service, as a retiring allowance and accrued vacation entitlement.

**Grants of Plan-Based Awards Table**

During the year ended August 31, 2023, Lexaria issued the following did not issue any plan-based awards to our named executive officers during the year ended August 31, 2022: officers.

Compensation Securities							
Executive Officer	Type of compensation security	Number of compensation securities, number of underlying securities, and percentage of class	Date of issue or grant	Issue, conversion or exercise price \$	Closing price of security or underlying security on date of grant \$	Closing price of security or underlying security at year end \$	Expiry date
Chris Bunka, CEO	Stock Options	15,000	09/01/2021	6.23	6.22	2.96	09/01/2026
		30,000	08/29/2022	2.91	3.01		08/29/2027
John Docherty, President	Stock Options	15,000	09/01/2021	6.23	6.22	2.96	09/01/2026
		30,000	08/29/2022	2.91	3.01		08/29/2027
Greg Downey, CFO	Stock Options	10,000	09/01/2021	6.23	6.22	2.96	09/01/2026
		11,000	08/29/2022	2.91	3.01		08/29/2027

[Table of Contents](#)
**Outstanding Equity Awards at Fiscal Year End**

The particulars of unexercised options, stock that has not vested and equity incentive plan awards for our named executive officers are set out in the following table:

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END									
	OPTION AWARDS					STOCK AWARDS			
Executive Officer	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options Unearned (#)	Option Exercise Price\$ Price\$	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested \$	Equity Incentive Plan Awards: Number of Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (#)
Christopher Bunka	26,000	-	-	\$5.83 3.00	04/23/2026	-	-	-	-
	23,334	-	-	\$7.08 3.00	06/08/2026	-	-	-	-
	15,000	-	-	\$6.23 3.00	09/01/2026	-	-	-	-
	30,000	-	-	\$2.91	08/29/2027	-	-	-	-
John Docherty	13,334	-	-	\$9.60 3.00	04/23/2025	-	-	-	-
	18,000	-	-	\$5.31 3.00	04/23/2026	-	-	-	-
	18,334	-	-	\$7.08 3.00	06/08/2026	-	-	-	-
	15,000	-	-	\$6.23 3.00	09/01/2026	-	-	-	-
	30,000	-	-	\$2.91	08/29/2027	-	-	-	-
Greg Downey <sup>(1)</sup>	12,000	4,000	-	\$5.04 3.00	04/24/2026	-	-	-	-
	5,000	-	-	\$5.31 3.00	04/25/2026	-	-	-	-
	8,000	-	-	\$7.08 3.00	06/08/2026	-	-	-	-
	10,000	-	-	\$6.23 3.00	09/01/2026	-	-	-	-
	11,000	-	-	\$2.91	08/29/2027	-	-	-	-

<sup>(1)</sup> The options held by Mr. Downey expired on September 6, 2023.

**Option Exercises**

No options were exercised by any named executive officer during the year ended August 31, 2022 August 31, 2023.

## Compensation of Directors

As of August 31, 2022 August 31, 2023, threefour of our directors are compensated for their services. In their capacity as independent directors each receives \$30,000 per year paid quarterly in advance. Directors are also paid nominal amounts for their services on the audit Audit and finance, compensation, Finance, Compensation, and the governance Governance and nominating committees Nominating Committees and for acting as chair of such committees.

Three Four independent directors were granted an aggregate of 14,400 64,600 stock options with a calculated fair value of \$44,827 \$88,936 and is included in consulting expense during the fiscal year 2022, 2023.

## Pension, Retirement or Similar Benefit Plans

There are no arrangements or plans in which we provide pension, retirement or similar benefits for directors or executive officers. We have no material bonus or profit-sharing plans pursuant to which cash or non-cash compensation is or may be paid to our directors or executive officers, except that stock options may be granted at the discretion of our Board or a committee thereof.

## Indebtedness of Directors, Senior Officers, Executive Officers, and Other Management

None of our directors or executive officers or any associate or affiliate of our company during the last two fiscal years is or has been indebted to our Company by way of guarantee, support agreement, letter of credit or other similar agreement or understanding currently outstanding.

57

## [Table of Contents](#)

### Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee is, or was during fiscal 2022, 2023, an officer or employee of the Company or any of its subsidiaries or was formerly an officer of the Company or any of its subsidiaries. No member of the Compensation Committee is, or was during fiscal 2022, 2023, an executive officer of another company whose board of directors has a comparable committee on which one of the Company's executive officers serves.

54

## [Table of Contents](#)

## Board Diversity

The Company and its management are highly supportive of the recent initiatives taken by the Securities and Exchange Commission and the Nasdaq Group to encourage diversity within the board of directors of reporting companies. Lexaria annually reviews its board composition and evaluates areas of expertise that would provide additional benefits to the Company and its shareholders.

During fiscal 2022, the Corporate Governance and Nominating Committee, with the assistance of the executive management, began vetting candidates who would enhance the board with their expertise in the bioscience industry sector and who would enhance the board with their diverse perspectives. As the Company transitions its technology towards pharmaceutical applications, we will endeavour to engage individuals who are able to enhance the board with expertise in this industry sector and who also will enrich the board with their diverse perspectives. Subsequent to the fiscal year end 2023, the board appointed Dr. Catherine C. Turkel as a director an additional independent director. This appointment aligns with the Company's transition towards pharmaceutical applications and desire to build on September 2, 2022, its scientific expertise in this industry sector. In addition, Dr. Turkel's appointment enriches the board with her diverse perspective and results in the Company being in compliance with Nasdaq's board diversity rules.

## Compensation Committee Report

Our Compensation Committee has reviewed and discussed the Executive Compensation for the year ended August 31, 2022 August 31, 2023, with management. Based on the reviews and discussions our Compensation Committee recommended to our Board that the Executive Compensation discussed above be included in this annual report on Form 10-K.

## Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table sets forth certain information with respect to the beneficial ownership of our common shares by each shareholder known by us to be the beneficial owner of more than 5% of our common shares, as well as by each of our directors and executive officers as a group, as of **August 31, 2022** **August 31, 2023**. Each person has sole voting and investment power with respect to the shares of common stock, except as otherwise indicated. Beneficial ownership consists of a direct interest in the shares of common stock, except as otherwise indicated.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percentage of Class
Christopher Bunka; Kelowna BC, Canada	590,456 <sup>(1)</sup>	9.76 %
John Docherty; Toronto, ON, Canada	148,743 <sup>(2)</sup>	2.46 %
Greg Downey; Kelowna, BC, Canada *	47,883 <sup>(3)</sup>	0.80 %
Ted McKechnie; Toronto, ON, Canada *	24,991 <sup>(4)</sup>	0.42 %
Nicholas Baxter; Aberdeenshire, UK *	22,800 <sup>(5)</sup>	0.38 %
Al Reese Jr., Houston, TX, USA *	17,717 <sup>(6)</sup>	0.30 %
<b>Directors and Executive Officers as a Group (6 persons)</b>	<b>852,590</b>	<b>14.12 %</b>
<b>Don Jackler, New York, NY, USA</b>	<b>580,582</b> <sup>(7)</sup>	<b>9.59 %</b>

Name, Address & Position of Beneficial Owner	Amount and Nature of Beneficial Ownership	Percentage of Class <sup>(1)</sup>
<b>Directors and Executive Officers as a Group</b>	909,307	10.85 %
<b>Executive Officers and Directors Individually</b>		
Christopher Bunka CEO, Chairman & Director	628,956 <sup>(2)</sup>	7.68 %
John Docherty President and Director	148,743 <sup>(3)</sup>	1.82 %
Nicholas Baxter* Independent Director	46,000 <sup>(4)</sup>	0.56 %
Ted McKechnie* Independent Director	48,191 <sup>(5)</sup>	0.59 %
Albert Reese Jr.* Independent Director	25,917 <sup>(6)</sup>	0.32 %
Catherine C. Turkel* Independent Director	11,500 <sup>(7)</sup>	0.14 %
<b>5% Owners</b>		
Don Jackler	568,382 <sup>(8)</sup>	6.94 %

\* denotes a holding of less than 1%

### Notes:

**Less than 1% (1)** Percentage of ownership is based on 8,091,650 common shares issued and outstanding as of the Record Date on a diluted basis.

\* Except as otherwise indicated, we believe that the beneficial ownership owners of the common stock listed above, based on information furnished by such owners, have sole investment and voting power with respect to such common shares.

- (1) Chairman and Includes 254,412 shares held in the name of C.A.B. Financial Services. His holdings included Services and 273,543 shares held directly CEO Chris Bunka by Christopher Bunka. Includes 94,334 options held in the name of Christopher Bunka of which 64,334 are exercisable at \$3.00 and directly held 30,000 are exercisable at \$2.91 and 6,667 warrants held in the name of C.A.B. Financial Services all of which are exercisable at \$10.50 273,543 shares and the following exercisable options: 26,000 at \$5.83, 23,334 at \$7.08, 15,000 at \$6.23 and 30,000 at \$2.91. \$10.50. and 215,912 (2)
- (2) Director (3) Includes 54,075 shares held in the name of Docherty Management Ltd. and President John Docherty holdings include 13,334 64,668 options exercisable at \$9.60, 18,000 at \$5.31, 18,334 at \$7.08, 15,000 at \$6.23 \$3.00 and 30,000 options exercisable at \$2.91. \$2.91 held in the name of John Docherty.
- (3) CFO Greg Downey holdings include 12,000 options exercisable at \$5.04, 5,000 at \$5.31, 8,000 at \$7.08, 10,000 at \$6.23 and 11,000 at \$2.91.
- (4) Director Ted McKechnie holdings includes 1,500 options exercisable at \$5.31, 5,000 at \$7.08, 1,900 at \$6.23 and 3,400 at \$3.39.
- (5) Director Nicholas Baxter holdings includes 1,500 options exercisable at \$5.31, 5,000 at \$7.08. 1,900 at \$6.23 and 3,400 at \$3.39.



- (6) **Director Al Reese Jr. holdings includes** Includes 3,400 options exercisable at \$4.80 \$3.39, 8,400 options exercisable at \$3.00, 18,200 options exercisable at \$1.96 and 3,400 5,000 options exercisable at \$3.39 \$0.87.
- Mr. Jackler is a consultant whose holdings include (5)
- (6) Includes 3,400 options exercisable at \$3.39, 3,400 options exercisable at \$3.00, 3,200 options exercisable at \$1.96 and 5,000 options exercisable at \$0.87
- (7) Includes 3,400 options exercisable at \$3.04, 1,600 options exercisable at \$1.96 and 5,000 options exercisable at \$0.87
- (8) Includes 100,000 warrants which are exercisable at \$7.00.

58

## [Table of Contents](#)

Under Rule 13d-3, a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship, or otherwise has or shares: (i) voting power, which includes the power to vote, or to direct the voting of shares; and (ii) investment power, which includes the power to dispose or direct the disposition of shares. Certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire the shares (for example, upon exercise of an option) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the number of shares beneficially owned by such person (and only such person) by reason of these acquisition rights. As a result, the percentage of outstanding shares of any person as shown in the table above does not necessarily reflect the person's actual ownership or voting power with respect to the number of shares of common stock actually outstanding on August 31, 2022 August 31, 2023. As of November 25, 2022, November xx, 2023, there were 5,950,998 10,240,516 shares of our common stock issued and outstanding.

55

## [Table of Contents](#)

### Changes in Control

We are unaware of any contract or other arrangement which may at a subsequent date result in a change in control of our Company.

### Item 13. Certain Relationships and Related Transactions, and Director Independence

No director, executive officer, shareholder holding at least 5% of shares of our common stock, or any family member thereof, had any material interest, direct or indirect, in any transaction, or proposed transaction since the year ended August 31, 2022 August 31, 2023, in which the amount involved in the transaction

exceeded or exceeds the lesser of \$120,000 or one percent of the average of our total assets at the year end for the last three completed fiscal years.

#### Director Independence

Lexaria directors are Mr. Christopher Bunka, Mr. John Docherty, Mr. Nicholas Baxter, Mr. Ted McKechnie, Mr. Al Reese Jr. and Ms. Dr. Catherine Turkel. We have determined that Mr. Messrs. Baxter, Mr. McKechnie Mr. and Reese and Ms. Dr. Turkel are "independent directors" as defined in Nasdaq Marketplace Rule 4200(a)(15).

Our audit and finance committee consists of our Mr. Messrs. Baxter, Mr. McKechnie, and Mr. Reese, who qualifies the latter qualifying as an "audit committee financial expert" as defined in Item 407(d)(5)(ii) of Regulation S-K.

From inception to present date, we believe that the members of our audit committee and our Board have been and are collectively capable of analyzing and evaluating our financial statements and understanding internal controls and procedures for financial reporting.

Our compensation committee Compensation Committee consists of the following independent directors: Mr. Messrs. McKechnie and Mr. Baxter. Baxter and Dr. Turkel. During fiscal year ended August 31, 2022 August 31, 2023, the compensation committee Compensation Committee held one meeting five meetings to determine bonus compensation payable to the named executive officers in connection with the successful completion of certain performance milestones.

Our appointed governance Governance and nominating committee consist Nominating Committee consists of the following independent directors: Mr. Reese Jr. and Mr. Baxter. Dr. Turkel. To date no meetings have one formal meeting has been held by this committee.

#### Item 14. Principal Accounting Fees and Services

The aggregate fees billed for the most recently completed fiscal year ended August 31, 2022 August 31, 2023, and for fiscal year ended August 31, 2021 August 31, 2022 for professional services rendered by the principal accountant accountants were as follows:

	Year Ended	
	August 31, 2022	August 31, 2021
Principal Accounting Fees	\$	\$
Audit	86,975	73,733
Audit related	25,521	18,458
Tax	-	-
Total	112,496	92,191

  

Principal Accounting Fees	Year Ended	
	August 31, 2023	August 31, 2022
	\$	\$
Audit	95,900	86,975
Audit Related	32,960	25,521
Tax	10,150	-
Total	139,010	112,496

Audit fees consist of fees billed for professional services rendered for the audits of our financial statements on Form 10-K and the reviews of our interim financial statements included in quarterly reports filed on Form 10-Q.

Audit related fees consist of fees billed for assurance and related services by the Company's principal accountant that are reasonably related to the performance of the audit or review of the Company's financial statements, which are not included in the Audit Fees described above.

We do not use our principal accountants Tax fees were billed for professional services other than those relative to our annual audit and the review of our interim financial statements and certain SEC filings. We do not involve our principal accountants for matters related to including assistance with tax compliance, preparation of tax returns, and financial information system design and implementation. These services, including corporate tax preparation and the designing or implementing of a system that aggregates source data underlying the financial statements or generates information that is significant to our financial statements, are provided internally or by other service providers. consultation.

#### Pre-Approval Policy

Our Audit and Finance committee pre-approve all services provided by our independent auditors according to the Audit and Finance Committee's Charter as set out in Exhibit "A" in the Company's Schedule 14A Definitive Proxy Statement filed with the SEC on April 13, 2022. All of the above audit services and fees were reviewed and approved by the committee. As our independent auditors do not provide service outside of the audit function the auditors' independence is maintained.

59 56

[Table of Contents](#)

## PART IV

### Item 15. Exhibits, Financial Statement Schedules

#### a) Financial Statements

- 1) Report of Independent Registered Public Accounting Firm (PCAOB ID 206)
- 2) Financial statements for our Company are listed in the index under Item 8 of this document.
- 2) 3) All financial statement schedules are omitted because they are not applicable, not material or the required information is shown in the financial statements or notes thereto.

#### b) Exhibits

Exhibit Number	Description
(2)	Plan of Acquisition, Reorganization, Arrangement, Liquidation or Succession
2.1	Plan of Conversion (included as Schedule "A" to the proxy statement/prospectus)
(3)	Articles of Incorporation and Bylaws
3.1* 3.1	Articles of Incorporation
3.2*	Bylaws
3.3	Amended and Restated Articles of Incorporation (Filed on Form 8-K January 14, 2021 Exh. 3.1)
3.4 3.2	Second Amended and Restated Bylaws (Incorporated by reference as Exhibit 3.2 to our Current Report on Form 8-K filed January 14, 2021)
3.5	Amended and Restated Bylaws (Filed on Form S-1 June 3, 2020 Exh 3.4)
3.6	Amendment to Articles of Incorporation – Share Consolidation (Filed on Form 8-K June 23, 2009 Exh 3.1)
3.7	Amendment to Articles of Incorporation – Share Expansion (Filed on Form 8-K March 10th, 2010)
3.8	Amendment to Articles of Incorporation – Share Forward Split (Filed on Form 8-K December 16th, 2015 Exh 3.1)
3.9	Amendment to Articles of Incorporation – Name Change (Filed on Form 8-K May 11th, 2016 Exh 99.1)
(4)	Instruments Defining the Rights of Security Holders, including Indentures
4.1	Equity Incentive Plan (Filed on Form S-8 July 30, 2021)
4.2	Form of Warrant (Incorporated by reference to Exhibit 4.5 to the Registration Statement on Form S-1 filed with the SEC on April 28, 2023)
(10)	Material Contracts

<a href="#"><u>10.1</u></a>	<a href="#"><u>Executive Employment Agreement dated Dec. 31, 2021 with John Docherty (filed on Form 10-Q January 14, 2022 Exh 10.1)</u></a>
<a href="#"><u>10.2</u></a>	<a href="#"><u>Management Services Agreement dated Dec. 31, 2021 with C.A.B. Financial Services Ltd. (Chris Bunka) (filed on Form 10-Q January 14, 2022 Exh 10.2)</u></a>
<a href="#"><u>10.3</u></a>	<a href="#"><u>Media Buys Agreement with SRAX (incorporated by reference as Exhibit 10.1 to our Current Report on Form 8-K filed December 16, 2021)</u></a>
<a href="#"><u>10.4</u></a>	<a href="#"><u>Redacted Intellectual Property License Agreement dated May 20, 2022 between Lexaria Hemp Corp. and Premier Wellness Science Co., Ltd. (filed on Form 10-Q July 14, 2022 Exh 10.3)</u></a>
<a href="#"><u>10.4</u></a> <a href="#"><u>10.5</u></a>	<a href="#"><u>Underwriting Equity Distribution Agreement with H.C. Wainwright &amp; Co. Maxim Group LLC (incorporated by reference as Exhibit 1.1 to our Current Report on Form 8-K filed January 14, 2021 August 12, 2022)</u></a>
<a href="#"><u>10.5</u></a> <a href="#"><u>10.6</u></a>	<a href="#"><u>Asset Form of Securities Purchase Agreement with Hill Street Beverage Company Inc. (incorporated (Incorporated by reference as to Exhibit 10.31 10.8 to our the Registration Statement on Form S-1 filed November 20, 2020 with the SEC on April 28, 2023)</u></a>
<a href="#"><u>10.7</u></a>	<a href="#"><u>Placement Agency Agreement (filed on Form 8-K May 10, 2023 Exh. 10.2)</u></a>
<a href="#"><u>10.8</u></a>	<a href="#"><u>Form of Warrant Agency Agreement (Incorporated by reference to Exhibit 10.9 to the Registration Statement on Form S-1 filed with the SEC on April 28, 2023)</u></a>
<a href="#"><u>10.9</u></a>	<a href="#"><u>Redacted Work Order for Start-Up Activities with InClin, Inc. (filed on Form 10-Q July 14, 2023 Exh. 10.3)</u></a>
(21)	<b>Subsidiaries</b>
<a href="#"><u>21.1</u></a>	<a href="#"><u>List of Subsidiaries of the Registrant (Filed on Form 10-K November 29, 2021 Exh 21.1)</u></a>
(23)	<b>Consents of Experts and Counsel</b>
<a href="#"><u>23.1</u></a>	<a href="#"><u>Consent of MaloneBailey LLP, Chartered Professional Accountants</u></a>
<a href="#"><u>23.2</u></a>	<a href="#"><u>Consent of Davidson &amp; Company LLP, Chartered Professional Accountants</u></a>
(31)	<b>Rule 13(a) - 14 (a)/15(d) - 14(a)</b>
<a href="#"><u>31.1</u></a>	<a href="#"><u>Section 302 Certifications under Sarbanes-Oxley Act of 2002 of Principal Executive Officer</u></a>
<a href="#"><u>31.2</u></a>	<a href="#"><u>Section 302 Certifications under Sarbanes-Oxley Act of 2002 of Principal Financial Officer and Principal Accounting Officer</u></a>
(32)	<b>Section 1350 Certifications</b>
<a href="#"><u>32.1</u></a>	<a href="#"><u>Section 906 Certification under Sarbanes Oxley Act of 2002 of Principal Executive Officer</u></a>
<a href="#"><u>32.2</u></a>	<a href="#"><u>Section 906 Certification under Sarbanes Oxley Act of 2002 of Principal Financial Officer and Principal Accounting Officer</u></a>
(101)**	<b>Interactive Data Files</b>
<a href="#"><u>101.INS</u></a>	<a href="#"><u>XBRL Instance Document</u></a>
<a href="#"><u>101.SCH</u></a>	<a href="#"><u>XBRL Taxonomy Extension Schema Document</u></a>
<a href="#"><u>101.CAL</u></a>	<a href="#"><u>XBRL Taxonomy Extension Calculation Linkbase Document</u></a>
<a href="#"><u>101.DEF</u></a>	<a href="#"><u>XBRL Taxonomy Extension Definition Linkbase Document</u></a>
<a href="#"><u>101.LAB</u></a>	<a href="#"><u>XBRL Taxonomy Extension Label Linkbase Document</u></a>
<a href="#"><u>101.PRE</u></a>	<a href="#"><u>XBRL Taxonomy Extension Presentation Linkbase Document</u></a>

\*Incorporated by reference to same exhibit filed with the Company's Registration Statement on Form SB-2 filed March 1, 2006.

\*\* Furnished herewith. Pursuant to Rule 406T of Regulation S-T, the Interactive Data Files on Exhibit 101 hereto are deemed not filed or part of any registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, and otherwise are not subject to liability under those sections.

## SIGNATURES

In accordance with Section 13 or 15(d) of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LEXARIA BIOSCIENCE CORP.

By: /s/ Christopher Bunka John Docherty  
Christopher Bunka John Docherty  
Chief Executive Officer, Chairman President and Director  
(Principal Executive Officer)  
Date: November 25, 2022 November 20, 2023

In accordance with the Exchange Act, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: /s/ John Docherty  
John Docherty  
President and Director  
(Principal Executive Officer)  
Date: November 20, 2023

By: /s/ Christopher Bunka  
Christopher Bunka  
Chief Executive Officer, Chairman and Director  
(Principal Executive Financial Officer)  
Date: November 25, 2022 November 20, 2023

By: /s/ John Docherty  
John Docherty  
President and Director  
Date: November 25, 2022

By: /s/ Gregory Downey  
Gregory Downey CPA, CMA  
Chief Financial Officer  
(Principal Financial Officer)  
Date: November 25, 2022

By: /s/ Ted McKechnie  
Ted McKechnie  
Director  
Date: November 25, 2022 November 20, 2023

By: /s/ Nicholas Baxter  
Nicholas Baxter  
Director  
Date: November 25, 2022 November 20, 2023

By: /s/ Albert Reese Jr.  
Albert Reese Jr.  
Director  
Date: November 25, 2022 November 20, 2023

By: /s/ Dr. Catherine C. Turkel  
Dr. Catherine C. Turkel  
Director  
Date: November 25, 2022 November 20, 2023

## EXHIBIT 23.1

## CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements on Forms S-3 (File Nos. 333-238915, 333-250326 and 333-262402), Form S-8 (File No. 333-258308) and Forms S-1 (File Nos. 333-271096 and 333-252031) of our report dated November 17, 2023 with respect to the audited consolidated financial statements of Lexaria Bioscience, Inc. (the "Company") appearing in this Annual Report on Form 10-K of the Company for the year ended August 31, 2023.

/s/ MaloneBailey, LLP

www.malonebailey.com

Houston, Texas

November 17, 2023

-indr A

## EXHIBIT 23.2

## CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-1 No. Forms S-3 (File Nos. 333-238915, 333-250326 and 333-262402), Form S-8 (File No. 333-258308) and Forms S-1 (File Nos. 333-271096 and 333-252031) of Lexaria Bioscience Corp. of our report dated November 25, 2022, relating to the consolidated financial statements of Lexaria Bioscience Corp., for the years ended August 31, 2022 August 31, 2023 and 2021 2022 which appears in the annual report on Form 10-K of Lexaria Bioscience Corp. dated November 25, 2022 November 20, 2023.

Vancouver, Canada

/s/ DAVIDSON & COMPANY LLP

November 25, 2021 17, 2023

Chartered Professional Accountants

r  
 (

## EXHIBIT 31.1

CERTIFICATION PURSUANT TO  
 18 U.S.C. ss 1350, AS ADOPTED PURSUANT TO  
 SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Chris Bunka, John Docherty, certify that:

1. I have reviewed this Annual Report on Form 10-K of Lexaria Bioscience Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

- a. *Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;*
  - b. *Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;*
  - c. *Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and*
  - d. *Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's first fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and*
5. *The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):*
- a. *All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and*
  - b. *Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.*

Date: November 25, 2022 November 20, 2023

/s/ " Chris Bunka " John Docherty

Chris Bunka John Docherty

CEO President and Director

(Principal Executive Officer)

lename 8

EXHIBIT 31.2

CERTIFICATION PURSUANT TO  
18 U.S.C. ss 1350, AS ADOPTED PURSUANT TO  
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory Downey, Christopher Bunka, certify that:

1. *I have reviewed this Annual Report on Form 10-K of Lexaria Bioscience Corp.;*
2. *Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;*
3. *Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;*



4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's first fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 25, 2022 November 20, 2023

/s/ "Gregory Downey" Christopher Bunka

Gregory Downey, CPA, CMA Christopher Bunka

Chief Financial Executive Officer and Treasurer Director

(Principal Financial Officer and Principal Accounting Officer)

</filenaM ~ ~ ~

EXHIBIT 32.1

CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Chris Bunka, John Docherty, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Annual Report on Form 10-K of Lexaria Bioscience Corp. for the year ended August 31, 2022 August 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Lexaria Bioscience Corp.

Dated: November 25, 2022 November 20, 2023

/s/ "Chris Bunka" John Docherty

Chris Bunka John Docherty

CEO President and Director

(Principal Executive Officer)

Lexaria Bioscience Corp.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Lexaria Bioscience Corp. and will be retained by Lexaria Bioscience Corp. and furnished to the Securities and Exchange Commission or its staff upon request.

s newQ

EXHIBIT 32.2

CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Gregory Downey, Christopher Bunka, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Annual Report on Form 10-K of Lexaria Bioscience Corp. for the year ended August 31, 2022 August 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Lexaria Bioscience Corp.

Dated: November 25, 2022 November 20, 2023

/s/ "Gregory Downey" Christopher Bunka

Gregory Downey CPA, CMA Christopher Bunka

Chief Financial Executive Officer and Treasurer Director

(Principal Financial Officer and Principal Accounting Officer)

Lexaria Bioscience Corp.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Lexaria Bioscience Corp. and will be retained by Lexaria Bioscience Corp. and furnished to the Securities and Exchange Commission or its staff upon request.

eQ

#### DISCLAIMER

THE INFORMATION CONTAINED IN THE REFINITIV CORPORATE DISCLOSURES DELTA REPORT™ IS A COMPARISON OF TWO FINANCIALS PERIODIC REPORTS. THERE MAY BE MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORT INCLUDING THE TEXT AND THE COMPARISON DATA AND TABLES. IN NO WAY DOES REFINITIV OR THE APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED UPON THE INFORMATION PROVIDED IN THIS REPORT. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S ACTUAL SEC FILINGS BEFORE MAKING ANY INVESTMENT OR OTHER DECISIONS.

©2023, Refinitiv. All rights reserved. Patents Pending.