Filed Pursuant to Rule 424(b)(3)

Registration No. 333-279909

PROSPECTUS

Lexaria Bioscience Corp.

2,917,032 Shares of Common Stock

This prospectus relates to the resale from time to time by the selling stockholder named in this prospectus (the "Selling Stockholder") of up to 2,917,032 shares of our common stock, par value $0.001 per share, issuable upon the exercise of an outstanding warrant issued on April 30, 2024 (the "Warrant"). The Warrant was issued as partial consideration for the Selling Stockholder's immediate and full exercise of existing common stock purchase warrants (collectively the "Prior Warrant") for cash, pursuant to the terms of a warrant exercise agreement with respect to the Prior Warrant (the "Warrant Exercise Agreement") described in more detail on page 9 of this prospectus.

We will not receive any proceeds from the sale of shares of common stock by the Selling Stockholder. Upon the cash exercise of the Warrant, however, we will receive the exercise price of the Warrant for an aggregate of $13,855,902.

Our registration of the shares of common stock covered by this prospectus does not mean that the Selling Stockholder will offer or sell any of such shares of common stock. The Selling Stockholder named in this prospectus, or its donees, pledgees, transferees or other successors-in-interest, may resell the shares of common stock covered by this prospectus through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. For additional information on the possible methods of sale that may be used by the Selling Stockholder, you should refer to the section of this prospectus entitled "Plan of Distribution."

No underwriter or other person has been engaged to facilitate the sale of the common stock in this offering. We will bear all costs, expenses and fees in connection with the registration of the common stock. The Selling Stockholder will bear all commissions and discounts, if any, attributable to its sales of our common stock.

Our common stock and public warrants are listed respectively on The Nasdaq Capital Market, or Nasdaq, under the symbols "LEXX" and "LEXXW." On May 31, 2024, the last reported sales price for our common stock was $3.89 per share and the last reported sales price for our listed warrants was $1.49 per listed warrant.

Investment in our common stock involves a high degree of risk. See "Risk Factors" contained in this prospectus on page 8, in our periodic reports filed from time to time with the Securities and Exchange Commission (the "SEC"), which are incorporated by reference in this prospectus, and in any applicable prospectus supplement. You should carefully read this prospectus and the documents we incorporate by reference, before you invest in our common stock.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or the accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 11, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of the registration statement that we filed with the SEC pursuant to which the Selling Stockholder named herein may, from time to time, offer and sell or otherwise dispose of the shares of our common stock covered by this prospectus. As permitted by the rules and regulations of the SEC, the registration statement filed by us includes additional information not contained in this prospectus.

This prospectus and the documents incorporated by reference into this prospectus include important information about us, the securities being offered and other information you should know before investing in our securities. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or shares of common stock are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in this prospectus, including the documents incorporated by reference therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus.

You should rely only on this prospectus and the information incorporated or deemed to be incorporated by reference in this prospectus. We have not, and the Selling Stockholder has not, authorized anyone to give any information or to make any representation to you other than those contained or incorporated by reference in this prospectus. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless otherwise indicated, information contained or incorporated by reference in this prospectus concerning our industry, including our general expectations and market opportunity, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry's future performance are necessarily uncertain due to a variety of factors, including those described in "Risk Factors" beginning on page 8 of this prospectus. These and other factors could cause our future performance to differ materially from our assumptions and estimates.

This prospectus is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. We are not making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should read this entire prospectus carefully, including the "Risk Factors" section in this prospectus and under similar captions in the documents incorporated by reference into this prospectus. In this prospectus, unless otherwise stated or the context otherwise requires, references to "Lexaria," "Company," "we," "us," "our" or similar references mean Lexaria Bioscience Corp. and/or our subsidiaries on a consolidated basis.

Company Overview

Lexaria 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 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 cannabinoids. In addition, we have recently commenced research and development of DehydraTECH in connection with GLP-1 drugs with results from our first human pilot study issued in January 2024. Our technology can be applied to a variety of therapeutic indications, including hypertension and heart disease, diabetes and weight loss. 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 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- and odor-blocking, allowing manufacturers to create low-sugar products with fewer calories and artificial sweeteners.

The Company has developed extensive experience from the formulation and production of its demonstration products, in various formats, that enables us to provide expert advice to our licensees with the integration of DehydraTECH in their products for the purpose of providing a more palatable and efficient delivery of bioactive molecules.

Lexaria supports our licensees' 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 nicotine, cannabidiol ("CBD") and GLP-1 drugs with additional molecules of interest continually being evaluated.

Patents

Our current patent portfolio includes patent family applications or grants pertaining to our method of improving bioavailability and palatability, and the use of DehydraTECH as a delivery platform for a wide variety of APIs including, but not limited to, fat soluble vitamins; anti-viral drugs; phosphodiesterase inhibitors; human hormones; regulated cannabinoids, and nicotine and its analogs.

We continue to pursue patent protection in many countries around the world as vigorously as we are able, since the successful granting of more of those applications could lead to material increases in shareholder value. The Company currently has a multitude of patent applications pending worldwide**.**

The Company has patents issued in the United States, Canada, Australia, Europe, India, Mexico, and Japan.

Research & Development

Lexaria is advancing several R&D activities in both preclinical and clinical programs. Currently, our primary research program for calendar 2024 is the investigation of DehydraTECH formulations of semaglutide, liraglutide, trizepatide and certain combinations thereof with cannabidiol (CBD) based on the successful results of our first human pilot study which showed higher blood semaglutide levels, lower blood glucose levels and apparent improvements in gastrointestinal tolerability for our DehydraTECH processed Rybelsus® (which contains semaglutide) over Rybelsus on its own.

With funding received from our February 16, 2024 registered direct financing, we have commenced the expansion on this research with our second acute human pilot study to determine the efficacy of an oral dissolvable DehydraTECH-semaglutide tablet formulation, whereby the first dosing has been completed; and with a 12-week animal study which has begun dosing, whereby various DehydraTECH formulations of semaglutide, liraglutide and DehydraTECH-CBD will be evaluated.

Also related to GLP-1 investigations during calendar 2024, we expect to initiate a third acute human pilot study, and are planning for a multiple-week chronic human study investigating weight loss potential and blood sugar control using DehydraTECH-processed GLP-1 drugs and, potentially, DehydraTECH-CBD. All these studies are investigator initiated, non-registrational studies.

We are also continuing to pursue our research of CBD for the reduction of hypertension pursuant to the receipt of a Study May Proceed letter from the FDA following their review of our Investigational New Drug ("IND") application. Other programs of interest, but with no active investigations underway at this time, include DehydraTECH research with nicotine for oral pouches and prospective nicotine replacement therapy, antiviral drugs, hormones and other compounds. From time to time the Company will engage in contract R&D for third parties who are interested in evaluating DehydraTECH in their products.

Due to our expanding portfolio coverage, we continually examine accelerated timetable options for testing, research, and development of each API. We continue to devote an increasing proportion of our resources and focus towards pharmaceutical applications.

Investigational GLP-1 Research

The first results from our investigational human pilot study (the "GLP-1 Study") of DehydraTECH enhanced GLP-1 drug semaglutide sold as Rybelsus® were announced on November 27, 2023. The GLP-1 Study utilized a single semaglutide dose of 7 mg of the Rybelsus Control (the "Control") and compared it to the matching dose of the DehydraTECH GLP-1, swallowed by each subject after an overnight fasting period together with a 50 mL glass of water. The DehydraTECH GLP-1 formulation used was a compound formulated strictly for research purposes. Seven healthy subjects were dosed across two dosing visits following the "cross-over" design of the GLP-1 Study. The results of the GLP-1 Study as announced in Lexaria's news releases of November 27 and 28, 2023 and January 4, 2024 revealed that at each of the 19 blood sample time points, the DehydraTECH GLP-1 blood semaglutide levels were higher than the Control levels with peak levels of semaglutide in blood being 43% higher in the DehydraTECH GLP-1 than in the Control, that the subjects had better tolerability using the DehydraTECH GLP-1 with instances of moderate nausea and moderate diarrhea experienced only by subjects using the Control, and only the Control group evidenced inconsistent blood glucose reduction that did not prevent blood glucose spikes after eating. Conversely, DehydraTECH GLP-1 reduced blood glucose to lower levels and was much more effective at maintaining consistently reduced blood glucose levels even after eating a standardized meal at the 240-minute mark and a standardized snack at the 360-minute mark.

Investigational New Drug Application

The FDA provided Lexaria with a positive written response on August 10, 2022, from our pre-IND meeting regarding DehydraTECH-CBD for the treatment of hypertension. The FDA confirmed that it agreed with Lexaria's proposal to pursue a 505(b)(2) new drug application ("NDA") regulatory pathway for our program. Following this, we worked diligently toward our Phase 1(b) IND study filing for clinical trial HYPER-H23-1, pursuant to which we: (i) selected InClin, Inc. as our contract research organization ("CRO") to perform the study; (ii) completed the initial manufacturing work associated with the study; and (iii) in collaboration with our CRO, commenced certain administrative tasks associated with the study. On January 29, 2024 Lexaria submitted its IND application with the FDA. Lexaria received requests for additional information to which it provided satisfactory responses resulting in the receipt on February 29, 2024 of a Study May Proceed letter from the FDA. Lexaria may now proceed with conducting its Phase 1b hypertension clinical trial HYPER-H23-1 entitled *A Phase 1b Randomized, Double-Blind, Placebo-Controlled Study of the Safety, Pharmacokinetics, and Pharmacodynamics of DehydraTECH-CBD in Subjects with Stage 1 or Stage 2 Hypertension*, subject to raising sufficient funding, and satisfying certain other FDA-requested conditions.

HYPER-H21-4

The first results of our hypertension study HYPER-H21-4 were announced on October 27, 2022, with the primary safety and efficacy objectives being met. The study showed, among other things, a sustained drop in blood pressure in normally active hypertensive patients following multiple weeks of oral cannabidiol ("CBD") therapy, using Lexaria's patented DehydraTECH-CBD capsule formulation.

On December 21, 2022, further results were released from this multi-week human clinical hypertension study, indicating superior CBD blood absorption levels from our patented DehydraTECH-CBD relative to those of published, pharmaceutical-grade CBD industry.

On February 21, 2023, the Company announced additional findings demonstrating a potentially novel mechanism of action in reducing blood pressure. These latest results from study HYPER-H21-4 imply that the antihypertensive effects of DehydraTECH-CBD may be explained, at least in part, by its interaction with the sympatho-chromaffin system via catestatin modulation. This suggests a potentially unique mechanistic benefit upon cardiovascular regulation with DehydraTECH-CBD treatment that has not previously been demonstrated, to our knowledge, with testing of CBD for blood pressure reduction.

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

Overall, HYPER-H21-4 resulted in data sets which further strengthens and supports the case for DehydraTECH-CBD offering distinctive mechanistic benefits for the treatment of hypertension.

EPIL-A21-1

In March 2022, Lexaria initiated an 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.

On November 29, 2022, Lexaria announced findings from the study indicating its patented DehydraTECH-CBD has demonstrated performance enhancements compared to one of the world's leading anti-seizure medications, Epidiolex®, generally at a lower DehydraTECH-CBD dose.

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.

DEM-A22-1

On November 8, 2022, commencement of animal study program DEM-A22-1 was announced. 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 require an improved study design with a longer duration with the potential addition of DehydraTECH-nicotine which may have additive efficacy potential.

DIAB-A22-1

DIAB-A22-1, 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 treat diabetes, a disease whereby the body does not produce sufficient insulin, leading to higher-than-normal levels of sugars in the blood. The results from this study were announced in March and June 2023 and evidenced the following achievements of 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 has determined to undertake a human diabetes clinical study, referred to as GLP-1-H24-4, to investigate whether similar improvements will be evidenced in humans. Lexaria has now raised sufficient funding and is in the process of finalizing its study design which shall be submitted for receipt of the necessary IRB approval. Lexaria estimates that this clinical study will commence in late Q3 or early Q4 of calendar 2024.

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 visited the laboratory to be dosed three times over a period of weeks. During each visit only one oral nicotine pouch was administered and evaluated: either DehydraTECH-nicotine; on!™ brand manufactured by Altria; or Zyn™ brand manufactured by Swedish Match™. Predetermined questionnaires for subjective evaluation were used for each oral nicotine pouch, and blood samples were taken 8 times per visit to conduct objective evaluations related to the quantity of nicotine in blood at various time points. Subjective evaluations related to throat burn, user experience, gastrointestinal experience were also 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 oral pouches resulted in no moderate to severe graded hiccups, lowest frequency of severe nausea and several instances of the highest positive endorsement ratings with respect to tolerability, pleasure, euphoria & head rush and mouth & throat burn.

Lexaria now seeks to commercialize DehydraTECH-Nicotine with suitable industry partners based on its clinical and intellectual property advancements.

HOR-A22-1

In May 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.

The results from this study may lead Lexaria to investigate the potential use of DehydraTECH for human hormone therapies.

Corporate Information

Our principal executive offices are located at #100 - 740 McCurdy Road, Kelowna, British Columbia, Canada, V1X 2P7. Our telephone number is 1-250-765-6424. We maintain a website at www.lexariabioscience.com. The information contained on our website is not, and should not be interpreted to be, a part of this prospectus. 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.sedarplus.ca.

THE OFFERING

Common Stock to be Offered by the Selling Stockholder	Up to 2,917,032 shares of our common stock which are issuable upon the exercise of the Warrant.
Use of Proceeds	All shares of our common stock offered by this prospectus are being registered for the account of the Selling Stockholder and we will not receive any proceeds from the sale of these shares. However, we will receive proceeds from the exercise of the Warrant if the Warrant is exercised for cash. We intend to use those proceeds, if any, for working capital purposes. See "Use of Proceeds" beginning on page 9 of this prospectus for additional information.
Plan of Distribution	The Selling Stockholder named in this prospectus, or its pledgees, donees, transferees, distributees, beneficiaries or other successors-in-interest, may offer or sell the shares of common stock from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The Selling Stockholder may also resell the shares of common stock to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. See "Plan of Distribution" beginning on page 12 of this prospectus for additional information on the methods of sale that may be used by the Selling Stockholder.
Nasdaq Capital Market Symbol	Our common stock and public warrants are listed on Nasdaq under the symbol "LEXX" and "LEXXW" respectively.
Risk Factors	Investing in our common stock involves significant risks. See "Risk Factors" beginning on page 8 of this prospectus and the documents incorporated by reference in this prospectus.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks set forth under the section captioned "Risk Factors" contained in our Annual Report on Form 10-K for the year ended August 31, 2023, which is incorporated by reference into this prospectus, and in the other reports that we file with the SEC and incorporate by reference into this prospectus, before deciding to invest in our common stock. The risks and uncertainties we have described are not the only ones we face.

If any of the events described in these risk factors actually occurs, or if additional risks and uncertainties that are not presently known to us or that we currently deem immaterial later materialize, then our business, prospects, results of operations and financial condition could be materially adversely affected. In that event, the trading price of our securities could decline, and you may lose all or part of your investment in our securities. The risks discussed include forward-looking statements, and our actual results may differ substantially from those discussed in these forward-looking statements. See "Special Note Regarding Forward-Looking Statements."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, and any documents we incorporate by reference, contain certain forward-looking statements that involve substantial risks and uncertainties. All statements contained in this prospectus and any documents we incorporate by reference, other than statements of historical facts, are forward-looking statements including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words “anticipate”, “believe”, “estimate”, “expect”, “intend”, “may”, “plan”, “predict”, “project”, “target”, “potential”, “will”, “would”, “could”, “should”, “continue” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about: 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.

These forward-looking statements are only predictions and we may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, so you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. We have included important factors in the cautionary statements included in this prospectus that could cause actual future results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.

USE OF PROCEEDS

All shares of common stock offered by this prospectus are being registered for the account of the Selling Stockholder and we will not receive any proceeds from the sale of these shares. However, we will receive proceeds from the exercise of the Warrant if the Warrant is exercised for cash. We intend to use those proceeds, if any, for general working capital purposes.

SELLING STOCKHOLDER

Unless the context otherwise requires, as used in this prospectus, “Selling Stockholder” refers to the Selling Stockholder listed below and to donees, pledgees, transferees or other successors-in-interest selling shares received after the date of this prospectus from the Selling Stockholder as gifts, pledges or other non-sale related transfers.

We have prepared this prospectus to allow the Selling Stockholder or its successors, assignees or other permitted transferees to sell or otherwise dispose of, from time to time, up to 2,917,032 shares of our common stock which are issuable upon the exercise of the Warrant.

Warrant Exercise Agreement and Warrant

On April 30, 2024, we entered into the Warrant Exercise Agreement with the Selling Stockholder to exercise in full the Prior Warrant for cash (the “Exercise”) to purchase up to an aggregate of 2,917,032 shares of common stock. In consideration for the Exercise, the Selling Stockholder received the Warrant in a private placement pursuant to Section 4(a)(2) of the Securities Act. The Warrant was issued to the Selling Stockholder for consideration of $0.125 per share for aggregate gross proceeds of $364,629.

The Warrant will become exercisable commencing at any time on or after April 30, 2024, with an expiration date of February 16, 2029, with an exercise price per share equal to $4.75. We agreed to file a resale registration statement within 60 days with respect to the Warrant and the shares of common stock issuable upon exercise of the Warrant. The Warrant includes beneficial ownership restrictions that prevent the Selling Stockholder from owning more than 9.99% of our outstanding common stock at any time.

The gross proceeds to the Company from the Exercise were approximately $4.7 million, prior to deducting estimated offering expenses.

Relationship with the Selling Stockholder

Except as described above under "Warrant Exercise Agreement and Warrant" and with respect to earlier purchases of our securities in arms-length transactions, the Selling Stockholder does not have, or within the past three years has not had any position, office, or other material relationship with us.

Information About Selling Stockholder Offering

The shares of common stock being offered by the Selling Stockholder are the 2,917,032 shares of our common stock issuable upon the exercise of the Warrant. We are registering these shares in order to permit the Selling Stockholder to offer the shares for resale from time to time.

The table below lists the Selling Stockholder and other information regarding the ownership of the shares of common stock by the Selling Stockholder. The second column lists the number of shares of common stock owned by the Selling Stockholder, based on its ownership of the shares of common stock as of May 31, 2024 and securities convertible or exercisable into shares of common stock within 60 days of May 31, 2024, assuming the exercise of the Warrant by the Selling Stockholder on that date, without regard to any limitations on the exercise of the Warrant. The third column lists the maximum number of shares of common stock being offered in this prospectus by the Selling Stockholder, issuable upon exercise of the Warrant, without regard to any limitations on the exercise of the Warrant. The fourth and fifth columns list the number of shares of common stock owned after the offering and the percentage of outstanding common stock, assuming in both cases the exercise of the Warrant, without regard to any limitations on the exercise of the Warrant and the sale of all of the shares of common stock offered by the Selling Stockholder pursuant to this prospectus.

Except as otherwise indicated below, based on the information provided to us by the Selling Stockholder, and to the best of our knowledge, the Selling Stockholder is not a broker-dealer or an affiliate of a broker-dealer.

The third column lists the shares of common stock being offered pursuant to this prospectus by the Selling Stockholder.

Name of Selling Stockholder	Number of shares of common stock owned prior to offering	Maximum number of shares of common stock to be sold pursuant to this Prospectus	Number of shares of common stock owned after offering(1)	Percentage of common stock owned after offering
Armistice Capital, LLC (2)	5,429,449(3)	2,917,032(4)	2,512,417(5)	14.57%(6)

* Less than 1%.

(1) Assumes the sale of the maximum number of shares of common stock registered pursuant to this prospectus by the Selling Stockholder.
(2) The securities are directly held by Armistice Capital Master Fund Ltd., a Cayman Islands exempted company (the "Master Fund"), and may be deemed to be beneficially owned by: (i) Armistice Capital, LLC ("Armistice Capital"), as the investment manager of the Master Fund; and (ii) Steven Boyd, as the Managing Member of Armistice Capital. The Warrant is subject to a beneficial ownership limitation of 9.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the warrants that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation. The address of Armistice Capital Master Fund Ltd. is c/o Armistice Capital, LLC, 510 Madison Avenue, 7th Floor, New York, NY 10022.
(3) Includes: (i) 1,487,032 shares of common stock held in abeyance pursuant to a 9.99% blocker provision (the "Abeyance Shares"), and 2,917,032 shares of common stock issuable upon exercise of the Warrant, assuming release of the Abeyance Shares and exercise of the Warrant, without regard to any shareholding limitations. The release of the Abeyance Shares is subject to a beneficial ownership limitation of 9.99%, which restricts the Selling Stockholder from releasing any Abeyance Shares which would result in the Selling Stockholder and its affiliates owning, after release, a number of shares of common stock in excess of the beneficial ownership limitation.
(4) Includes 2,917,032 shares of common stock issuable upon exercise of the Warrant. The Warrant is subject to a beneficial ownership limitation of 9.99%, which such limitation restricts the Selling Stockholder from exercising that portion of the Warrant that would result in the Selling Stockholder and its affiliates owning, after exercise, a number of shares of common stock in excess of the beneficial ownership limitation.
(5) Includes the 1,487,032 Abeyance Shares without regard to any limitations on shareholdings.
(6) Calculation includes the 1,487,032 Abeyance Shares, the actual percentage of common stock held by the Selling Stockholder after the offering without the Abeyance Shares is 5.95%

DESCRIPTION OF SECURITIES TO BE REGISTERED

The following summary of the rights of our capital stock is not complete and is subject to and qualified in its entirety by reference to our Articles of Incorporation and Bylaws, copies of which are filed as exhibits to our Annual Report on Form 10-K for the year ended August 31, 2023, filed with the Securities and Exchange Commission (the "SEC") on November 20, 2023, and the forms of securities, copies of which are filed as exhibits to the registration statement of which this prospectus forms a part, which are incorporated by reference herein.

Authorized Capital Stock

Our authorized capital stock consists of 220,000,000 shares of common stock, par value $0.001 per share. As of May 31, 2024, there were 14,323,173 shares of common stock outstanding.

Common Stock

We are authorized to issue up to a total of 220,000,000 shares of common stock, par value $0.001 per share. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of our stockholders. Holders of our common stock have no cumulative voting rights. Further, holders of our common stock have no preemptive or conversion rights or other subscription rights. Upon our liquidation, dissolution or winding-up, holders of our common stock are entitled to share in all assets remaining after payment of all liabilities. Holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our Board out of our assets which are legally available. Such dividends, if any, are payable in cash, in property or in shares of capital stock.

The holders of shares of our common stock equal to 33.33% of all of our outstanding capital stock, present in person or by proxy, are necessary to constitute a quorum at any shareholder meeting. If a quorum is present, an action by stockholders entitled to vote on a matter is approved if the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action. The vote of a majority of our stock held by shareholders present in person or represented by proxy and entitled to vote at the meeting will be sufficient to elect directors or to approve a proposal. The additional shares of our authorized capital stock available for issuance may be issued at times and under circumstances so as to have a dilutive effect on earnings per share and on the equity ownership of the holders of our common stock. The ability of our board of directors to issue additional shares of stock could enhance the board's ability to negotiate on behalf of the stockholders in a takeover situation but could also be used by the board to make a change of control more difficult, thereby denying stockholders the potential to sell their shares at a premium and entrenching current management. The following description is a summary of the material provisions of our capital stock. You should refer to our Articles of Incorporation and our Bylaws, each as amended to date, both of which are on file with the SEC as exhibits to previous SEC filings, for additional information. The summary below is qualified by provisions of applicable law.

PLAN OF DISTRIBUTION

The Selling Stockholder, including its pledgees, donees, transferees, distributees, beneficiaries or other successors in interest may, from time to time, offer some or all of the shares of common stock covered by this prospectus. We will not receive any of the proceeds from the sale of the shares of common stock covered by this prospectus by the Selling Stockholder. However, we will receive proceeds from the exercise of the Warrant if the Warrant is exercised for cash. We intend to use those proceeds, if any, for working capital purposes. We will bear all fees and expenses incident to our obligation to register the shares of our common stock covered by this prospectus.

The Selling Stockholder may sell all or a portion of the shares of common stock beneficially owned by it and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the Selling Stockholder will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, in the over-the-counter market or in transactions otherwise than on these exchanges or systems or in the over-the-counter market and in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale, or at privately negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions.

The Selling Stockholder may use any one or more of the following methods when disposing of shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an over-the-counter distribution;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the effective date of the registration statement of which this prospectus is a part;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the Selling Stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholder may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending this prospectus to include the Selling Stockholder's pledgees, transferees, or other successors in interest as selling stockholders under this prospectus. The Selling Stockholder also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of shares of our common stock, the Selling Stockholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The Selling Stockholder may also sell shares of our common stock short and deliver these shares to close out its short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these shares. The Selling Stockholder may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Broker-dealers engaged by the Selling Stockholder may arrange for other broker-dealers to participate in sales. If the Selling Stockholder effects certain transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the Selling Stockholder or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal. Such commissions will be in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction will not be in excess of a customary brokerage commission in compliance with applicable FINRA rules; and in the case of a principal transaction a markup or markdown in compliance with applicable FINRA rules.

The aggregate proceeds to the Selling Stockholder from the sale of the common stock offered by it will be the purchase price of the common stock less discounts or commissions, if any. The Selling Stockholder reserve the right to accept and, together with its agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The Selling Stockholder also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conforms to the requirements of that rule.

The Selling Stockholder and any underwriters, broker-dealers or agents that participate in the sale of the common stock may be deemed to be "underwriters" within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. The Selling Stockholder are subject to the prospectus delivery requirements of the Securities Act.

To the extent required pursuant to Rule 424(b) under the Securities Act, the shares of our common stock to be sold, the names of the Selling Stockholder, the purchase price and public offering price, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states, the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

The Selling Stockholder and any other person participating in a sale of the common stock registered under this prospectus will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, to the extent applicable, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock by the Selling Stockholder and any other participating person. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the Selling Stockholder for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Stockholder may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Sichenzia Ross Ference Carmel, LLP, New York, New York.

EXPERTS

The consolidated financial statements of the Company as of and for the year ended August 31, 2023, included in our Annual Report on Form 10-K for the year ended August 31, 2023, have been audited by MaloneBailey, LLP, independent registered public accounting firm, as stated in their report, and have been incorporated by reference herein in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

The consolidated financial statements of the Company for the year ended August 31, 2022, included in the August 31, 2023 Annual Report on Form 10-K the Company have been incorporated by reference herein and in the registration statement in reliance upon the report of Davidson & Company LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and in accordance therewith file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC's website is http://www.sec.gov/.

We make available free of charge on or through our website at https://ir.lexariabioscience.com/sec-filings, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the SEC.

We have filed with the SEC a registration statement under the Securities Act, relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement for free at www.sec.gov. The registration statement and the documents referred to below under "Incorporation of Certain Information By Reference" are also available on our website, https://ir.lexariabioscience.com/sec-filings.

We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future documents (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) we file with the SEC pursuant to Sections l3(a), l3(c), 14 or l5(d) of the Exchange Act subsequent to the date of this prospectus and prior to the termination of the offering:

- our Annual Report on Form 10-K for the year ended August 31, 2023, filed on November 20, 2023;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended February 29, 2024 filed on April 9, 2024;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended November 30, 2023, filed on January 12, 2024;
- our Current Reports on Form 8-K, filed on October 3, 2023, October 12, 2023, October 16, 2023, October 18 2023, November 3, 2023, January 24, 2024, January 30, 2024, February 16, 2024, March 1, 2024, March 15, 2024, March 21, 2024, April 24, 2024, and April 30, 2024 (other than any portions thereof deemed furnished and not filed);
- our Form 8-A12B, filed on January 11, 2021; and
- our Form 8-A12G, filed on July 14, 2006.

All filings filed by us pursuant to the Exchange Act after the date of the initial filing of this registration statement and prior to the effectiveness of such registration statement (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) shall also be deemed to be incorporated by reference into the prospectus.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. Any statement contained in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a later statement contained in this prospectus or in any other document incorporated by reference into this prospectus modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in this prospectus but not delivered with this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). Any such request should be addressed to us at:

Lexaria Bioscience Corp.
Attn: Corporate Secretary
100-740 McCurdy Road
Kelowna, British Columbia, Canada, VIX 2P7
1-250-765-6424

You may also access the documents incorporated by reference in this prospectus through our website at https://ir.lexariabioscience.com/sec-filings. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

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2,917,032 Shares of Common Stock

COMMON STOCK

PROSPECTUS