

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 OR 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) May 6, 2021

LEXARIA BIOSCIENCE CORP.

(Exact name of registrant as specified in its charter)

<u>Nevada</u> (State or other jurisdiction of incorporation)	<u>000-52138</u> (Commission File Number)	<u>20-2000871</u> (IRS Employer Identification No.)
<u>100 – 740 McCurdy Road, Kelowna, BC Canada</u> (Address of principal executive offices)		<u>V1X 2P7</u> (Zip Code)

Registrant's telephone number, including area code (250) 765-6424

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.001 per share	LEXX	The Nasdaq Capital Market
Warrants to Purchase Common Stock	LEXXW	The Nasdaq Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by 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.

Item 7.01 Regulation FD Disclosure

On May 6, 2021, Lexaria Bioscience Corp. (“Lexaria”) announced that its three new DehydraTECH 2.0 formulations that formed part of its HYPER-A21-1 study, 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. 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.

On May 7, 2021 Lexaria announced the cancellation of 87,935 options of which an aggregate of 18,334 stock options had an exercise price of US\$14.10; 23,334 stock options had an exercise price of US\$10.20; and 46,267 stock options had an exercise price of US\$9.60.

On May 12, 2021 Lexaria announced the receipt of its first patent grant in India which was issued on April 30, 2021 for its third patent family, Stable Ready-to-Drink Beverage Compositions Comprising Lipophilic Active Agents. This represents the second granted patent in this patent family, the first granted patent being issued in Australia. This India patent grant includes claims for use with a variety of ready-to-drink beverages and a wide range of lipophilic active agents, including NSAIDs (e.g., acetylsalicylic acid, ibuprofen, diclofenac, indomethacin, piroxicam), acetaminophen, fat soluble vitamins, nicotine and cannabinoids.

Item 9.01 Financial Statements and Exhibits

[99.1](#) [Press Release dated May 6, 2021](#)

[99.2](#) [Press Release dated May 7, 2021](#)

[99.3](#) [Press Release dated May 12, 2021](#)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

LEXARIA BIOSCIENCE CORP.

/s/ Chris Bunka

Chris Bunka

CEO, Principal Executive Officer

Date: May 12, 2021

Lexaria Issues Successful Results from First 2021 Study, HYPER-A21-1

- Up to 2,178% more CBD delivered into bloodstream*
- Up to 1,737% more CBD delivered into brain tissue*

Kelowna, British Columbia, May 6, 2021 – Lexaria Bioscience Corp. (Nasdaq: LEXX) (Nasdaq: LEXXW) (CSE: LXX) (the “Company” or “Lexaria”), a global innovator in drug delivery platforms, is pleased to announce successful outcomes in its first sets of data from its 2021 applied research and development (R&D) study programs.

Study HYPER-A21-1 included three new “DehydraTECH 2.0” formulation variations designed to enable cannabidiol (“CBD”) delivery performance enhancements and pharmacokinetic optimization. All three new DehydraTECH 2.0 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. Summary data is shown below:

Formulation	AUClast ⁽¹⁾ (hr·kg·ng /mL/mg)	% Improvement over MCT Formulation (p value)	% Improvement over original DehydraTECH 1.0 (p value)	% Improvement over original DehydraTECH 2.0 (p value)
MCT Control ⁽²⁾	13.17 ± 6.78	--	--	--
Original ⁽²⁾ DehydraTECH 1.0	64.6 ± 23.7	390% (p=0.00002)	--	--
Original ⁽³⁾ DehydraTECH 2.0	134.7 ± 63.7	923% (p=0.00009)	108% (p=0.0036)	--
NEW DehydraTECH 2.0 Formulation 1 ⁽⁴⁾	153.9 ± 62.8	1,068% (p=0.00003)	138% (p=0.0006)	14% (p=0.253)
NEW DehydraTECH 2.0 Formulation 2 ⁽⁴⁾	216.0 ± 94.9	1,540% (p=0.00004)	234% (p=0.0003)	60% (p=0.018)
NEW DehydraTECH 2.0 Formulation 3 ⁽⁴⁾	300.1 ± 126.6	2,178% (p=0.00007)	364% (p=0.0002)	123% (p=0.002)

(1) AUC: Area Under the Curve, or total CBD delivery into the rodent bloodstream

(2) 60-minute study duration

(3) 60-minute study duration evaluated in 2019

(4) 120-minute study duration evaluated in 2021

“Not only did the three latest DehydraTECH 2.0 formulations deliver between 1,068% and 2,178% more CBD during the study period than the standard MCT control formulation, they also were up to 123% more effective than the original DehydraTECH 2.0 formulation,” said Chris Bunka, CEO of Lexaria. “Said another way, for every 1 mg of CBD delivered by the industry standard MCT control formulation, these latest DehydraTECH 2.0 formulations delivered 10 to 21 mg of CBD.”

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.

In each arm of the study, ten male Sprague-Dawley rats were dosed orally at a level of 25 mg/Kg CBD, and over the next 120 minutes multiple measurements were made of delivery into the bloodstream and tissues comparing the DehydraTECH formulations to certain controls.

These study findings add significantly to Lexaria's body of evidence demonstrating the ability of its DehydraTECH technology to be engineered to enhance the delivery of lipophilic active ingredients such as CBD across a range of uptake levels, whereby higher delivery level targets may be most applicable to pharmaceutical dosage forms and lower delivery level targets more suited to consumer packaged goods.

Additional DehydraTECH 2.0 formulations are being evaluated in Lexaria study HYPER-A21-2 presently underway, and results are expected in late May or early June, 2021. Thereafter, Lexaria is planning additional work that will evaluate impacts upon real-time blood pressure in animals using select formulations pursuant to these studies. Lexaria will provide more details on this upcoming blood pressure testing in animals as they become available. As well, advanced DehydraTECH 2.0 formulations are already being used by Lexaria in ongoing human studies and will be monetized for commercial use when applicable.

** Compared with control formula utilizing medium chain triglycerides (coconut oil) representative of standard industry practices*

About Lexaria Bioscience Corp.

Lexaria Bioscience Corp.'s proprietary drug delivery technology, DehydraTECH™, improves the way active pharmaceutical ingredients (APIs) enter the bloodstream by promoting healthier oral ingestion methods and increasing the effectiveness of fat-soluble active molecules, thereby lowering overall dosing. The Company's technology can be applied to many different ingestible product formats, including foods, beverages, oral suspensions, tablets, and capsules. DehydraTECH has repeatedly demonstrated since 2016 with cannabinoids and nicotine the ability to increase bio-absorption by up to 5-10x, reduce time of onset from 1 - 2 hours to minutes, and mask unwanted tastes; and is planned to be further evaluated for orally administered bioactive molecules, including anti-virals, cannabinoids, vitamins, non-steroidal anti-inflammatory drugs (NSAIDs), and nicotine. Lexaria has licensed DehydraTECH to multiple companies including a world-leading tobacco producer for the development of smokeless, oral-based nicotine products and for use in industries that produce cannabinoid beverages, edibles, and oral products. Lexaria operates a licensed in-house research laboratory and holds a robust intellectual property portfolio with 18 patents granted and approximately 60 patents pending worldwide. For more information, please visit www.lexariabioscience.com.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This press release includes forward-looking statements. Statements as such term is defined under applicable securities laws. These statements may be identified by words such as "anticipate," "if," "believe," "plan," "estimate," "expect," "intend," "may," "could," "should," "will," and other similar expressions. Such forward-looking statements in this press release include, but are not limited to, statements by the company relating the Company's ability to carry out research initiatives, receive regulatory approvals or grants or experience positive effects or results from any research or study. Such forward-looking statements are estimates reflecting the Company's best judgment based upon current information and involve a number of risks and uncertainties, and there can be no assurance that the Company will actually achieve the plans, intentions, or expectations disclosed in these forward-looking statements. As such, you should not place undue reliance on these forward-looking statements. Factors which could cause actual results to differ materially from those estimated by the Company include, but are not limited to, government regulation and regulatory approvals, managing and maintaining growth, the effect of adverse publicity, litigation, competition, scientific discovery, the patent application and approval process, potential adverse effects arising from the testing or use of products utilizing the DehydraTECH technology, the Company's ability to maintain existing collaborations and realize the benefits thereof, delays or cancellations of planned R&D that could occur related to pandemics or for other reasons, and other factors which may be identified from time to time in the Company's public announcements and periodic filings with the US Securities and Exchange Commission on EDGAR. There is no assurance that any of Lexaria's postulated uses, benefits, or advantages for the patented and patent-pending technology will in fact be realized in any manner or in any part. No statement herein has been evaluated by the Food and Drug Administration (FDA). Lexaria-associated products are not intended to diagnose, treat, cure or prevent any disease. Any forward-looking statements contained in this release speak only as of the date hereof, and the Company expressly disclaims any obligation to update any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise, except as otherwise required by law.

The CSE has not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

INVESTOR CONTACT:

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Phone: 866-221-3341

Lexaria Announces Cancellation of Options

Kelowna, British Columbia– May 7, 2021– Lexaria Bioscience Corp. (Nasdaq: LEXX) (Nasdaq: LEXXW) (CSE: LXX) (the “Company” or “Lexaria”), a global innovator in drug delivery platforms announces the cancellation of 87,935 stock options.

Stock Option Cancellation

Lexaria announces that on May 7, 2021 it has cancelled, with the approval and authorization of the optionees, an aggregate of 18,334 stock options having an exercise price of US\$14.10; 23,334 stock options having an exercise price of US\$10.20; and 46,267 stock options having an exercise price of US\$9.60 (collectively the “Options”). The Options were issued pursuant to the Company’s registered Incentive Equity Plan (the “Plan”) and upon cancellation will be returned to the option pool of the Plan for future reissuance.

About Lexaria Bioscience Corp.

Lexaria Bioscience Corp.’s proprietary drug delivery technology, DehydraTECH™, improves the way active pharmaceutical ingredients (APIs) enter the bloodstream by promoting healthier oral ingestion methods and increasing the effectiveness of fat-soluble active molecules, thereby lowering overall dosing. The Company’s technology can be applied to many different ingestible product formats, including foods, beverages, oral suspensions, tablets, and capsules. DehydraTECH has repeatedly demonstrated since 2016 with cannabinoids and nicotine the ability to increase bio-absorption by up to 5-10x, reduce time of onset from 1 - 2 hours to minutes, and mask unwanted tastes; and is planned to be further evaluated for orally administered bioactive molecules, including anti-virals, cannabinoids, vitamins, non-steroidal anti-inflammatory drugs (NSAIDs), and nicotine. Lexaria has licensed DehydraTECH to multiple companies including a world-leading tobacco producer for the development of smokeless, oral-based nicotine products and for use in industries that produce cannabinoid beverages, edibles, and oral products. Lexaria operates a licensed in-house research laboratory and holds a robust intellectual property portfolio with 18 patents granted and approximately 60 patents pending worldwide. For more information, please visit www.lexariabioscience.com.

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Lexaria Strengthens its International Patent Portfolio to 19 Patents Granted

New patent granted in India bolsters worldwide patent coverage, adding to existing patents in the EU, the U.S., and Australia

Kelowna, British Columbia, May 12, 2021 – Lexaria Bioscience Corp. (Nasdaq: LEXX) (Nasdaq: LEXXW) (CSE: LXX) (the “Company” or “Lexaria”), a global innovator in drug delivery platforms, announces further expansion of its intellectual property portfolio with its first-ever patent granted in India.

The patent is titled “Stable ready-to-drink beverage compositions comprising lipophilic active agents” and is of particular importance given the size of the Indian population, which is nearly four times as large as the U.S. population. The patent is valid for 20 years from the patent application date of Dec. 1, 2016.

“This is our 19th patent granted worldwide, allowing us to innovate in the ready-to-drink beverage composition category around the world,” said Chris Bunka, CEO of Lexaria. “This new patent complements our existing suite of granted patents spanning the EU, the U.S., and Australia, and provides intellectual property protection to both consumer-packaged goods as well as registered drug applications. We believe these are robust growth categories that add to Lexaria’s strategic value.”

This is the second patent granted from Lexaria’s third patent family. Lexaria’s patent application suite has grown to a total of 13 patent families. Active ingredients that may be used under this new patent include NSAIDS (e.g., acetylsalicylic acid, ibuprofen, diclofenac, indomethacin, piroxicam), fat-soluble vitamins, and acetaminophen. Active ingredients under the new patent also include nicotine and cannabinoids.

Claims granted cover a wide range of product formats, including non-carbonated beverages, carbonated beverages, colas, root beers, fruit-flavoured beverages, citrus-flavored beverages, fruit juices, fruit-containing beverages, vegetable juices, vegetable-containing beverages, teas, coffees, dairy beverages, protein-containing beverages, shakes, sports drinks, energy drinks, and flavored waters.

Lexaria has patent applications progressing in countries around the world with aggregate populations of approximately 3.7 billion people and will report on further progress as information becomes available.

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