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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, BC / ACCESSWIRE / 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 DehdyraTECH 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)**	**% Improveme over origina DehydraTECH (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.

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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

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