May 20, 2021

Lexaria's Newest DehydraTECH(TM) 2.0 Formulation Tested in Study HYPER-A21-2 Demonstrates Its Strongest CBD Absorption Results Ever

- ***New formulation delivers up to 2,708% more CBD into bloodstream****
- ***Human clinical hypertension study HYPER-H21-1 also progressing***

KELOWNA, BC / ACCESSWIRE / May 20, 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 test results of two new "DehydraTECH™ 2.0" cannabidiol ("CBD") formulations in its second 2021 applied research and development study program, HYPER-A21-2.

"One of our latest DehydraTECH 2.0 formulations gave us the strongest absorption enhancement results we've ever recorded, at 2,708% more CBD into bloodstream during the study period than the representative industry standard MCT control formulation. It was also 174% more effective than the original DehydraTECH 2.0 formulation from 2019," said Chris Bunka, CEO of Lexaria. "This is a 27-fold improvement in CBD delivery compared to the control formulation."

Study HYPER-A21-2 included three additional new DehydraTECH 2.0 formulation variations designed to enhance CBD delivery performance and pharmacokinetic optimization. Two of the three new DehydraTECH 2.0 formulations delivered improved performance when compared to both Lexaria's original DehdyraTECH 1.0 and 2019 DehydraTECH 2.0 concentration-matched formulations, as well as to a medium chain triglyceride ("MCT") oil based control formulation representative of standard industry practices. The final formulation provided useful data but did not deliver enhanced performance compared to the original DehydraTECH 2.0. 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 5 [4]	187 ± 95	1,322% (p=0.0001)	190% (p=0.001)	39% (p=0.08)
****NEW**** DehydraTECH 2.0 Formulation 6 [4]	370 ± 172	2,708% (p=0.00005)	472% (p=0.0001)	174% (p=0.0008)

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

Lexaria continues to build a robust body of evidence demonstrating that its patented DehydraTECH technology can significantly enhance the delivery of lipophilic active ingredients such as CBD across a range of uptake levels, with ultimate applications to wide ranging areas including consumer packaged goods as well as drugs with potential for disease treatment applications.

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 taken to assess delivery into the bloodstream and tissues comparing the DehydraTECH formulations to certain controls. There were a total of 120 animals for the new DehydraTECH 2.0 formulations evaluated in studies HYPER-A21-1 and HYPER-A21-2. Both studies HYPER-A21-1 and HYPER-A21-2 were conducted by an independent, premier animal testing laboratory located in the United States.

Lexaria also confirms that its HYPER-H21-1 human clinical hypertension study is currently underway and dosing is nearly complete, utilizing a formulation most closely resembling the original 2019 DehydraTECH 2.0. Along with a more than a 3-fold increase in dose quantity, these formulation improvements are expected to be more effective than the original

DehydraTECH 1.0 formulation used in Lexaria's foundational 2018 human clinical study that nonetheless evidenced significant blood pressure reduction, as published and available at PubMed. Lexaria thus expects improved pharmacokinetic performance in its current human clinical study to translate into further improved pharmacodynamic performance. Lexaria will provide details on the outcomes of study HYPER-H21-1 when they become available.

* *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 19 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:
ir@lexariabioscience.com
Phone: 866-221-3341

SOURCE: Lexaria Bioscience Corp.

View source version on accesswire.com:
https://www.accesswire.com/648283/Lexarias-Newest-DehydraTECHTM-20-Formulation-Tested-in-Study-HYPER-A21-2-Demonstrates-Its-Strongest-CBD-Absorption-Results-Ever