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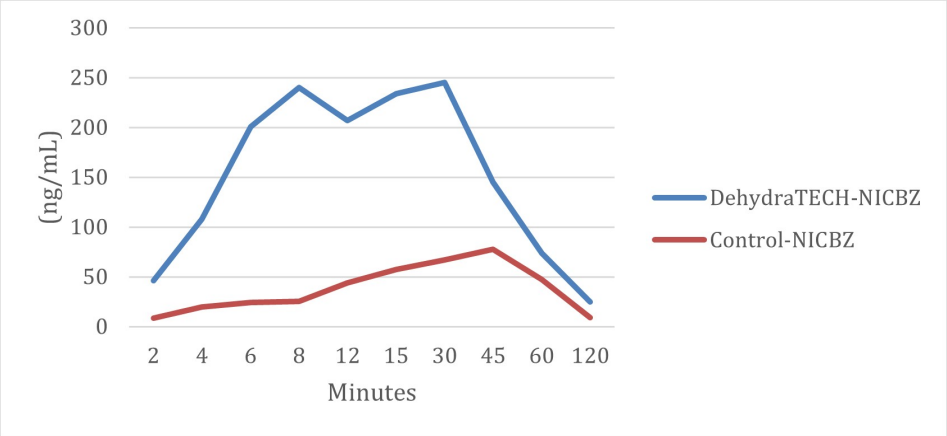
Lexaria Provides Update on Human Nicotine Study NIC-H22-1

- ***Lexaria's DehydraTECH-nicotine pouch performance will be compared to existing leading brands currently sold in the United States such as ON! and Zyn***

KELOWNA, BC / ACCESSWIRE / April 12, 2022/ Lexaria Bioscience Corp. (NASDAQ:LEXX)(NASDAQ:LEXXW) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms, announces details of human nicotine study NIC-H22-1, which is expected to begin dosing this summer.

Study NIC-H22-1 is a minimum 36-person human pharmacokinetic ("pk") randomized, double blinded, cross-over study to compare Lexaria's DehydraTECH-nicotine pouch performance to that of existing leading brands currently sold in the US such as ON! and Zyn. Objective data collection from blood samples that will evidence Tmax, Cmax, and AUC is the primary objective of the study. Secondary objectives include extensive subjective evaluations related to throat burn, user experience, and more. Lexaria hopes to evidence that processing purified nicotine with DehydraTECH leads to better oral-tissue absorption and reduced negative experiences compared to currently sold brands.

The design phase of study NIC-H22-1 is complete and test articles are currently being manufactured. The Company will announce when dosing begins, which is expected this summer. This study is funded by Lexaria with existing capital. The Company is optimistic that this larger human study will produce positive findings pursuant to those evidenced in its previous 2021 subjective human testing that utilized DehydraTECH-nicotine formulations demonstrating onset of initial nicotine effectiveness in as little as 1.5 to 4 minutes after an oral dose.



As reported on October 5, 2021, Lexaria demonstrated in animal study NIC-A21-1 that nicotine oral pouches using DehydraTECH technology were 10x to 20x faster in reaching peak delivery of nicotine to bloodstream than controls. Findings using a DehydraTECH nicotine benzoate formulation relative to a concentration-matched control from that study are shown in the figure above.

The oral nicotine pouch category is of intense interest to Lexaria and is one of the fastest growing segments of the nicotine industry due in part to its reduced risk health outcomes as noted by the Food and Drug Administration ("FDA"). This delivery method, in the white pouch format specifically, which avoids harmful lung outcomes experienced by smokers or vapers, 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. The global market for the oral nicotine pouch category was US$2.33 billion in 2020 and is growing at a rapid CAGR of 30.7% and is expected to reach $21.84 billion in 2027.

As reported on March 8, 2022, Lexaria recently received its first ever patent granted to use DehydraTECH to more efficiently deliver nicotine through buccal tissue absorption. Similar patent filings have been made in the USA and in the EU and Lexaria believes those potential patent awards could support significant competitive advantages in the nicotine white pouch category, as well as other oral nicotine product formats.

About Lexaria Bioscience Corp.

Lexaria Bioscience Corp.'s patented drug delivery technology, DehydraTECH™, improves the way active pharmaceutical ingredients (APIs) enter the bloodstream by promoting more effective oral delivery. Since 2016, DehydraTECH has repeatedly demonstrated the ability to increase bio-absorption with cannabinoids and nicotine by up to 5-10x, reduce time of onset from 1 - 2 hours to minutes, and mask unwanted tastes; and is also being evaluated for orally administered anti-viral drugs, non-steroidal anti-inflammatory drugs (NSAIDs), and more. DehydraTECH has also evidenced an ability to deliver some drugs more effectively across the blood brain barrier. Lexaria operates a licensed in-house research laboratory and holds a robust intellectual property portfolio with 24 patents granted and over 50 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.

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