August 7, 2018

Lexaria Bioscience Announces Further Advancement of Edibles Nicotine Testing: Delivery Measured Within Minutes

- ***Nicotine, in an edible form, delivered to blood plasma within minutes after dosing.***
- ***Statistically significant positive in vivo results (n=40; two groups of 20 animals).***
- ***90.2% greater delivery by the 10-minute mark of the study (95% CI; p=0.044) than the study control, and significantly greater absorption levels than the control at all subsequent time points.***
- ***This study represents Lexaria's second in vivo nicotine study, building on the previous nicotine breakthrough study announced April 17, 2018.***

KELOWNA, BC / ACCESSWIRE /August 7, 2018 /Lexaria Bioscience Corp. (OTCQX: LXRP; CSE: LXX) (the "Company" or "Lexaria"), a drug delivery platform innovator, announces that it has successfully delivered nicotine in an edible form into blood plasma just minutes after dosing in an animal *in vivo* study. Lexaria's DehydraTECH™ technology delivered nicotine at each of the 2, 4, 6, 8 and 10-minute intervals post-dosing, with 90.2% greater delivery than the concentration-matched control formulation by the 10-minute mark (95% CI; p=0.044), and significantly greater absorption levels than the control formulation at all subsequent time points in the study.

Speed of onset is a key attribute for oral drug administration, and it is of particular importance for the consideration of non-inhalation nicotine delivery formats.

Lexaria contracted a third-party laboratory to perform the study which focused on detailed analysis of absorption over a 60-minute period, with particular emphasis on the first 15-minutes after dosing (n=40; two groups of 20 rats per group; nicotine polacrilex dosage at 10mg/kg). This study is in follow-up to *in vivo* study results previously announced on April 17, 2018 which utilized a smaller animal population over a 6-hour period.

Key highlights are as follows:

- Peak Level: 79% improvement in peak blood levels (maximum concentration or "Cmax") at 394 ng/mL using Lexaria's DehydraTECH^{TM} technology vs. 220 ng/mL with the control (95% CI; p=0.0257);
- Total Quantity: 94% improvement in total quantity of nicotine delivered (area under the curve or "AUC") to the blood during the 60-minute course of the study, at 266 hr•ng/mL versus 137 hr•ng/mL (95% CI; p=0.0086);
- Rapidity: Lexaria's technology delivered nicotine into the blood stream by the first time

interval of blood sampling at the 2-minute mark. On average, Lexaria's technology delivered 203 ng/mL to the blood in aggregate of the 2, 4, 6, 8, 10, 12 and 15-minute time points, compared to only 120 ng/mL in aggregate over the same period by the control, an improvement of 70% (95% CI; p=0.0004).

A significant amount of data has yet to be received and analyzed from this study, including brain absorption data. The blood plasma data from this nicotine study is considered statistically significant and corroborates and confirms the validity of the results previously announced on April 17, 2018.

	DehydraTECH™ Formulation (nicotine polacrilex 10 mg/Kg)	Control Formulation (nicotine polacrilex 10 mg/Kg)	% Improvement	pValue
Average Nicotine Blood Level 0-15 min (ng/mL)	203	120	70	0.0004
Peak Nicotine Blood Level 0-60 min (ng/mL)	394	220	79	0.0257
Total Nicotine Absorption (i.e., AUC) 0-60 min (hr·ng/mL)	266	137	94	0.0086

According to the CDC, global deaths from smoking are currently 6 million per year and expected to reach 8 million yearly by 2030. For every fatality from smoking 30 more people live with serious smoking-related illness. (www.cdc.gov/tobacco)

"Lexaria's DehydraTECH™ breakthrough technology is demonstrating significant effectiveness in delivering nicotine into the bloodstream much more rapidly than we thought possible, and at levels approaching two times more effective than controls," said Chris Bunka, Chief Executive Officer of Lexaria Bioscience Corp. "If we can develop viable ingestible alternatives to cigarette smoking we could help hundreds of millions of people avoid many of the disease states associated with smoking and I cannot imagine a more rewarding destiny bestowed upon Lexaria Bioscience Corp."

Lexaria's *in vitro* laboratory, *in vivo* animal and human clinical absorption studies have consistently shown faster delivery and more effective delivery of substances such as nicotine and cannabinoids. Lexaria continues to focus on advancing both its R&D and commercialization initiatives with its DehydraTECH^{TM} technology platform.

About Lexaria

Lexaria Bioscience Corp. has developed and out-licenses its disruptive delivery technology

that promotes healthier ingestion methods, lower overall dosing and higher effectiveness of lipophilic active molecules. Lexaria has multiple patents pending in over 40 countries around the world and has patents granted in the USA and in Australia for utilization of its DehydraTECH™ delivery technology. Lexaria's technology provides increases in intestinal absorption rates; more rapid delivery to the bloodstream; and important taste-masking benefits, for orally administered bioactive molecules including cannabinoids, vitamins, non-steroidal anti-inflammatory drugs (NSAIDs), nicotine and other molecules.

www.lexariabioscience.com

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FORWARD-LOOKING STATEMENTS

This release includes forward-looking statements. Statements which are not historical facts are forward-looking statements. The Company makes forward-looking public statements concerning its expected future financial position, results of operations, cash flows, financing plans, business strategy, products and services, competitive positions, growth opportunities, plans and objectives of management for future operations, including statements that include words such as "anticipate," "if," "believe," "plan," "estimate," "expect," "intend," "may," "could," "should," "will," and other similar expressions are forward-looking statements, including but not limited to: that any additional stock warrants or stock options will be exercised. 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 other factors will not affect the accuracy of such 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, managing and maintaining growth, the effect of adverse publicity, litigation, competition, the patent application and approval process and other factors which may be identified from time to time in the Company's public announcements and filings. There is no assurance that existing capital is sufficient for the Company's needs or that it will be able to raise additional capital. There is no assurance that Lexaria will successfully complete any other contemplated or existing technology license agreements; or that results from any studies will be favorable or in any way support future business activities of any kind. Scientific R&D is often unpredictable and unanticipated results could emerge from any study and have a material impact as can any results that cannot be reproduced in subsequent testing. There is no assurance that any planned corporate activity, scientific study, R&D, business venture, or initiative will be pursued, or if pursued, will be successful. 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). TurboCBD™, DehydraTECH™ technology and ViPova™ products are not intended to diagnose, treat, cure or prevent any disease.

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

SOURCE: Lexaria Bioscience Corp.