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Cardiovascular Performance Improvements including Lower Blood Pressure Discovered from Human Clinical Trial using Lexaria's DehydraTECH(TM) Powered TurboCBD(TM) Capsules

KELOWNA, BC / ACCESSWIRE / February 21, 2019 /Lexaria Bioscience Corp. (OTCQX: LXRP) (CSE: LXX) (the "Company" or "Lexaria"), a drug delivery platform innovator, is pleased to announce additional significant findings upon completion of further data analyses from its 2018 randomized, placebo-controlled, double-blinded European human clinical study that evaluated TurboCBD™, the Company's proprietary, DehydraTECH™ powered, cannabidiol ("CBD") fortified hemp-oil capsule.

A single 90mg dose of TurboCBD provided evidence of lower blood pressure; higher blood flow to the brain; faster delivery onset of CBD into the bloodstream; and, larger quantities of CBD within the blood compared to a single 90mg dose of generic CBD.

Key metabolic and hemodynamic performance findings linked to bioavailability enhancements were revealed in the study, which compared a 90 mg dose of Lexaria's TurboCBD™ to a 90 mg dose without Lexaria's DehydraTECH™ technology (the "positive control") as well as a placebo, as follows:

- Analysis of mean arterial blood pressure (MAP) at peak blood levels of CBD achieved with Lexaria's TurboCBD™ demonstrated a significant reduction in MAP compared to placebo (95% CI; p=0.027). This finding was not observed with the dose-matched positive control formulation for which there was no significant decrease in MAP compared to placebo (95% CI; p=0.625);
- Cerebral perfusion was also analysed by an index of conductance in the middle cerebral artery (MCA). The findings revealed that Lexaria's TurboCBD™ caused the greatest increase in MCA conductance relative to both the positive control formulation and placebo (95% CI; p=0.017 and P=0.002 respectively);
- Finally, over the six-hour study, analysis of the total area under the curve (AUC) demonstrated that Lexaria's TurboCBD™ resulted in a notable trend for higher levels of CBD in the bloodstream overall than the positive control formulation with total AUC of 10,865 ± 6,322 observed with Lexaria's formulation compared to 7,115 ± 2,978 observed with the positive control (95% CI; p=0.096). Furthermore, when normalized to body mass, the AUC at the peak CBD concentration was markedly and significantly

(95% CI; p=0.02) higher with the TurboCBD™ 90 mg dose compared to the 90 mg dose positive control formulation.

On August 1, 2018, the Company reported data from this study that demonstrated much faster absorption of CBD in the subjects within the first 30 minutes of the study as well as higher bioavailability throughout the course of the study. The additional results announced today provide additional support for the pronounced effectiveness of Lexaria's DehydraTECH™ technology at enabling superior cannabinoid delivery upon ingestion. The significant MAP results suggest potential utility of Lexaria's technology for CBD-induced reduction of blood pressure, while the enhanced MCA conductance also supports previous pre-clinical findings demonstrating the ability of Lexaria's technology to enhance drug delivery to the brain tissues as a principal site of action for compounds like cannabinoids.

"The findings that Lexaria's DehydraTECH™ technology can enable superior cannabinoid delivery are unique in this healthy-human clinical trial. However, the findings that the technology can proffer a positive influence on blood pressure and perfusion to the brain are truly remarkable," said Professor Philip Ainslie, Ph.D., Principal Investigator and Co-Director of the Centre for Heart, Lung and Vascular Health, UBC Okanagan Campus, Kelowna, Canada. "The potential benefits of this approach, but over the acute and more chronic time periods, in more middle-aged or elderly populations should now be prioritized. Establishing the impact of CBD delivery on the health of the circulatory systems, including the brain, could have major implications for the adjunct treatment of high blood pressure and some neurological diseases."

The study also provided exploratory findings with respect to relative levels of several CBD liver metabolites that were analysed for all subjects. Levels of 6α-OH-CBD, 7-OH-CBD, and 7-CBD-COOH were distinctly lower, albeit not statistically, initially in all cases and throughout the course of the study in two cases. These findings are aligned with Lexaria's theorized DehydraTECH™ mechanism of action whereby it is believed to stimulate lymphatic drug uptake and routing to the systemic circulation bypassing liver metabolism to some degree as the basis for its rapid and pronounced effectiveness.

Based on the positive outcomes of this study, Lexaria intends to conduct further human clinical investigations within the next year using DehydraTECH™ for cannabinoids with expanded numbers of subjects over a wider age range and selected pathologies. Additional data and reports will be provided from future studies as they become available.

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 DehydraTECHTM 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. 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.