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Combining Lexaria's DehydraTECHTM with Nanotech Delivers Increased Quantities of CBD into Brain Tissue

Lexaria's Patented DehydraTECH Combined with Nanoemulsion Formulation Delivers 1,137% More CBD

KELOWNA, BC / ACCESSWIRE / May 28, 2019 /Lexaria Bioscience Corp. (OTCQX: LXRP) (CSE: LXX) (the "Company" or "Lexaria"), a drug delivery platform innovator, announces recent animal testing proves that combining Lexaria's DehydraTECH^{TM} delivery technology with generic nanotech techniques delivers 1,137% more cannabidiol ("CBD") into animal brain tissue following oral ingestion than certain existing industry formulations.

BACKGROUND

On March 20, 2019, Lexaria announced it was beginning a series of animal studies with multiple objectives that included developing a better understanding of how effectively edible forms of cannabinoids cross the blood-brain-barrier ("BBB") to enter brain tissue. Results from these studies continue to generate additional data.

In this arm of animal study, Lexaria combined its DehydraTECH delivery technology with a standard form of nanotechnology and analyzed subsequent delivery into brain tissue following oral ingestion. Lexaria earlier proved in 2018 through two series of animal tests that its DehydraTECH delivers nicotine across the BBB more effectively than industry standards. This new research sought to confirm whether the same is true for cannabinoids. Lexaria also tested for differences in brain delivery rates between its patented long chain fatty acid ("LCFA") CBD formulations without nanotech processing with those of medium chain triglycerides ("MCT").

TEST RESULTS

In each arm of the Lexaria animal studies, 10 male Sprague-Dawley rats were orally administered CBD at the rate of 25mg per kg of bodyweight. Delivery of CBD into the brain was reported 8 hours after dosing.

In working with nanoemulsion processing equipment, Lexaria has developed a methodology to combine DehydraTECH with nanoemulsification for specific performance applications. Lexaria does not work with inorganic materials for purposes of nano-transformation since inorganic materials manipulated with nanotech have at times indicated poor health outcomes in animal testing. Lexaria's patented formulations rely only on Generally Recognized As Safe

("GRAS") organic ingredients.

- The Lexaria DehydraTECH LCFA formulation without nanotech achieved an average brain tissue accumulation level that was 246% higher than the average for those animals that received the MCT oil formulation (p=0.0013).
- The Lexaria DehydraTECH LCFA formulation WITH nanotech achieved an average brain tissue accumulation level that was 1,137% higher than the average for those animals that received the MCT oil formulation (p=0.0178).

CONCLUSION

DehydraTECH has now been proven in several series of animal tests in 2018 and 2019 to greatly assist the delivery of drugs including nicotine and cannabinoids across the BBB. Demonstration of the effectiveness of DehydraTECH together with nanoemulsification greatly expands the applicability of the technology both for conventional edible dosage forms and for consumable liquid and beverage dosage forms that are gaining ever increasing popularity.

Lexaria will make available to its licensed corporate clients throughout North America the benefits of Lexaria's recent technological advances through existing and new technology license agreements as rapidly as it is possible to customize each unique client formulation.

The full universe of classes of drugs that might be more efficiently delivered across the BBB using DehydraTECH has not yet been quantified but, in part owing to the fact that certain profound advantages might be exploited within the pharmaceutical industry, Lexaria does expect to conduct additional work during 2019 to try to determine what some of those drug classes may be. Lexaria will utilize its wholly-owned Lexaria Pharmaceutical subsidiary to pursue opportunities outside of cannabinoids and nicotine related to more effective BBB transport of other drug classes.

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. 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 notreviewed and does not accept responsibility for the adequacy or accuracy ofthis release.

SOURCE: Lexaria Bioscience Corp.

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