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Lexaria's Pulmonary Hypertension Clinical Study HYPER-H21-3 Delivers Positive Results

Data From This Human Study, Together With the Findings From Lexaria's Other Previously Announced Successful Studies, Intended To Support the Company's Plans To Seek Approvals by the U.S. Food and Drug Administration

KELOWNA, BC / ACCESSWIRE / April 14, 2022/ Lexaria Bioscience Corp. (NASDAQ:LEXX)(NASDAQ:LEXXW) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms announces that all data analyses from its simulated pulmonary hypertension clinical study HYPER-H21-3 have been successfully completed with positive safety and efficacy findings.

The study findings indicated a tendency (p=0.1) during 15 minutes of simulated low levels of oxygen (hypoxia) for reduced pulmonary artery systolic pressure ("PASP") with DehydraTECH-CBD treatment versus placebo. Most notably, PASP was significantly attenuated by about 5 mmHg or 41% overall (p=0.045) in male participants specifically suggesting differences by sex in responsiveness to CBD treatment under hypoxic stress conditions.

These findings are complementary to Lexaria's growing body of evidence demonstrating the ability of DehydraTECH-CBD to reduce blood pressure, which it has shown across a wide variety of clinical presentations, ranging from individuals with differing degrees of "essential hypertension", the most common form of hypertension, to individuals with stress-induced simulated pulmonary hypertension as reported here. These new findings from HYPER-H21-3 will help direct prospective future research into the efficacy of DehydraTECH-CBD use for the management of elevations in pulmonary arterial pressure under hypoxic conditions (e.g., exposure to altitude), related hypoxemic pathologies (e.g., severe lung disease), and pulmonary hypertension.

Lexaria intends to use the data from study HYPER-H21-3, together with the findings from its other previously announced successful studies that evidenced DehydraTECH-CBD's ability to lower human blood pressure, to support Lexaria's plans to seek approvals by the U.S. Food and Drug Administration ("FDA") to commence formal, registered clinical testing in the treatment of hypertension under the Investigational New Drug ("IND") process.

As in past studies, all study participants tolerated DehydraTECH-CBD well and no serious adverse side effects were recorded. Lexaria will continue to provide updates on its work towards IND filing as they become available.

About Study HYPER-H21-3

Study HYPER-H21-3 used a placebo-controlled and double-blinded design, with administration of a single 300mg dose of a specific DehydraTECH-2.0 CBD formulation compared to placebo in a target group of sixteen enrolled volunteers (8 females and 8 males; aged 18-35 years). The study participants were subjected to a 30-minute period of rest following dosing, during which time they breathed normal room air (i.e., 21% oxygen), followed by a 40-minute period of simulated hypoxia (i.e., 12% oxygen) that was induced in order to safely simulate robust hypoxic pulmonary vasoconstriction ("HPV") and, as a result, an acute state of pulmonary hypertension. The hypoxia state was intended to mimic conditions experienced by those traveling or walking at high altitude or by those engaging in other activities of diminished oxygen availability conducive to development of HPV. Adverse elevations in HPV also commonly occur in related hypoxemic pathologies (e.g., severe lung disease) and pulmonary hypertension. Measurements of PASP were performed via echocardiography at intervals of 15 and 30 minutes during the 40-minute hypoxic period comparing the effects of DehydraTECH-CBD to placebo.

Hypertension Markets

The hypertension market is valued at $28 billion per year and is expected to continue growing as one of the world's top health problems and as a subset of the larger heart disease market. Geographically, some of the highest rates of growth are expected in more recently industrialized nations such as China and India. Over 1.1 billion people worldwide suffer from hypertension.

Fewer than 1 person in 4 with hypertension have successfully controlled their blood pressure ("BP") through medications, meaning the potential market for hypertension drugs is much larger than $28 billion per year if an affordable drug was available with few or no side effects. Lexaria believes that its DehydraTECH-CBD may introduce a more tolerable anti-hypertensive treatment option that may be used alone or in combination with other medications, to reduce BP with fewer discouraging and unwanted side effects. Lexaria would seek to satisfy this currently unmet demand and in doing so could expand the overall hypertension market.

"Among persons 50 years of age or older, isolated systolic hypertension is the most common form of hypertension, and systolic blood pressure becomes more important than diastolic blood pressure as an independent risk predictor for coronary events, stroke, heart failure, and end-stage renal disease (ESRD). The Global Burden of Disease Study identified elevated blood pressure as the leading risk factor, among 67 studied, for death and disability-adjusted life-years lost during 2010."

Drugs focused on blood pressure and related conditions are some of thehighest selling drugs in the world. Lipitor, used to treat high cholesterol and reduce the risk of heart disease, has generated $94.7 billion in revenue from 1992 until 2017. Plavix, used to prevent heart attack and stroke, has sold $46.5 billion from 1992 until 2017. There are several hypertension drugs that each generate $1 billion per year or more in revenue.

About DehydraTECH-CBD

DehydraTECH-CBD is a unique CBD formulation Lexaria has developed and is optimizing

based on its patented and proprietary DehydraTECH drug delivery technology. DehydraTECH is designed to improve the way active molecules enter the bloodstream upon oral ingestion. DehydraTECH has also demonstrated enhanced delivery of certain active molecules including CBD into brain tissue, which Lexaria believes to be of particular importance for the effectiveness of its DehydraTECH-CBD specifically against hypertension because of the significant influence of central mediation upon blood pressure. Lexaria has also developed DehydraTECH-CBD formulations for other applications demonstrating superior bio-absorption when administered intraorally and topically.

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 5-10x and, in some instances with cannabinoids by as much as 27x compared to standard industry formulations, 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), PDE5 inhibitors 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.

INVESTOR CONTACT:
George Jurcic - Head of Investor Relations
ir@lexariabioscience.com
Phone: 250-765-6424, ext 202

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