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Lexaria's DehydraTECHTM-CBD Reduces Arterial Stiffness, Results Confirmed in Human Clinical Study HYPER-H21-2

Results suggest broader applications for DehydraTECH-CBD beyond hypertension

KELOWNA, BC / ACCESSWIRE / December 8, 2021/ Lexaria Bioscience Corp. (NASDAQ:LEXX)(NASDAQ:LEXXW) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms is pleased to issue follow-up results from human clinical study HYPER-H21-2 confirming that DehydraTECH^{TM}-processed cannabidiol ("CBD") reduces arterial stiffness, potentially broadening its application to treatment of cardiovascular and other disease states beyond hypertension where it has already shown tremendous promise.

"Reducing arterial stiffness in Lexaria's recent hypertension study after only a single day of dosing with our DehydraTECH-CBD is a major discovery," said John Docherty, President of Lexaria. "We know that increased arterial stiffness is correlated with many serious and life-threatening diseases affecting people worldwide, and we are optimistic that our latest findings could have future widespread implications for promotion of improved human health and wellness."

Arterial stiffness is a strong predictor of many aspects of human disease The impacts of increased arterial stiffness are not limited only to coronary heart disease such as hypertension, but also include other disease states such as diabetes mellitus, renal disease and more. It can also be a prognostic marker for cardiovascular events and all-cause mortality, even in asymptomatic individuals without overt cardiovascular disease.

The efficacy of blood pressure treatment and differences in efficacy between different types of antihypertensive agents is strongly correlated with measuring arterial stiffness, whereby the significant blood pressure reduction effects as previously reported with DehydraTECH-CBD from study HYPER-H21-2 appear to have been at least partially due to these improvements in arterial stiffness.

The arterial stiffness findings from study HYPER-H21-2 are summarized in the table below. Arterial stiffness was measured through pulse wave velocity ("PWV") evaluation, together with assessments of augmentation index and pressure. All comparisons between DehydraTECH-CBD and placebo were statistically significant ($p < 0.01$).

	DehydraTECH-CBD	Placebo

Pulse Wave Velocity (PWV)	8.1 ± 0.3 m/s	8.3 ± 0.3 m/s
Augmentation Index (Alx)	28.4 ± 1.4%	32.3 ± 1.3%
Augmentation Index corrected to heart rate of 75 BPM (Alx.75)	27.8 ± 1.3%	30.4 ± 1.3%
Augmentation Pressure (AugP)	12.0 ± 1.0 mmHg	14.6 ± 1.0 mmHg

In the table above, smaller numbers are the objective. PWV values normallyincrease by 0.9 m/s every 10 years between the age of 45 and 60 as arterial stiffness increases with aging. It has been estimated that a 1.0 m/s increase in PWV accounts for a 15% increase in cardiovascular and all-case mortality.

To have decreased arterial stiffness to the degree demonstrated in our present study after only a single day of dosing with DehydraTECH-CBD is quite remarkable and will be more thoroughly investigated in Lexaria's upcoming 6-week hypertension study HYPER-H21-4, where multiple doses over this period are expected to demonstrate additional benefits against hypertension and arterial stiffness.

As first reported on September 7, 2021, at selected times during study HYPER-H21-2, some volunteers with mild to moderate hypertension had reductions of as much as a 20 mmHg (i.e., 23%) drop in blood pressure relative to placebo. When averaged over the 24-hour duration of the study, reductions in diastolic, systolic and mean arterial pressure were all significantly evidenced with DehydraTECH-CBD when compared to the placebo condition. All secondary objectives of human clinical study HYPER-H21-2 have now been successfully completed

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.

About Human Study HYPER-H21-2

Human Study HYPER-H21-2 was conducted at a European medical research hospital. Sixteen human volunteers (8 male; 8 female) aged 45-65 with otherwise untreated pre- or mild-hypertension were given either a placebo, or three separate doses of 150 mg each of DehydraTECH-CBD over a 14-hour period and studied over a 24-hour duration. The average weight and height were 91 ± 13 kg and 173 ± 9 cm. Ambulatory blood pressure was recorded for 24 hours.

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. 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 - elevated blood pressure. Hypertension is a major risk factor for cardiovascular and cerebrovascular disease, and accounts for approximately 45% of cardiovascular disease mortality and morbidity worldwide.

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 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), 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 23 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:

ir@lexariabioscience.com
Phone: 250-765-6424, ext 202

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