June 9, 2021

Lexaria Provides Progress Report on Six R&D Programs

- ***All studies are using DehydraTECH™ 2.0 formulations for multiple market applications, including antivirals, hypertension, NSAIDs and oral nicotine***
- ***These studies are part of Lexaria's 2021 applied R&D program intended to enable opportunities for strategic partnerships***

KELOWNA, BC / ACCESSWIRE / June 9, 2021 /Lexaria Bioscience Corp. (Nasdaq:LEXX) (Nasdaq:LEXXW) (CSE:LXX) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms, provides this progress report on several studies within its 2021 applied research and development (R&D) program. Other studies actively underway and planned will be reported on separately.

VIRAL-A20-2 - A tolerability and pharmacokinetic or "PK" study in animals using antiviral drugs remdesivir and ebastine.
Animal dosing and all in-life procedures and sample analyses have been completed. Data analyses is underway with a view to reporting soon. There were 4 groups of 10 animals dosed to determine if DehydraTECH-enhanced remdesivir and ebastine were well tolerated and enabled improved overall quantity of drug delivery ("Area Under the Curve", or "AUC") relative to non-enhanced controls as Lexaria has successfully evidenced for other antiviral drugs. Lexaria hopes to build on recently announced positive findings from its VIRAL-C21-3 study that evidenced effective inhibition of the COVID-19 SARS-CoV-2 virus using these DehydraTECH-enhanced compounds in an *in vitro* screening assay.

VIRAL-A20-3 - An additional tolerability and PK study in animals evaluating AUC for 3 other antiviral drugs.
Animal dosing and all in-life procedures have been completed, and sample analyses is ongoing. There were 6 groups of 10 animals dosed in this study examining tolerability and quantity of drug delivery for 3 other antiviral drugs of interest with potential utility against the COVID-19 SARS-CoV-2 virus. This study is expected to generate reportable results during July or August.

VIRAL-MC21-1 - A molecular characterization ("MC") study being performed by Canada's National Research Council.
In this study, Nuclear Magnetic Resonance ("NMR") and Liquid Chromatography-High Resolution Mass Spectrometry ("*LC-HRMS*") are being applied to 5 DehydraTECH-enhanced antiviral drug formulations currently being investigated by the Company in studies VIRAL-A20-2 and VIRAL-A20-3. Molecular characterization is an important step in determining whether Lexaria's DehydraTECH technology alters the underlying drugs to a degree significant enough to result in formation of a covalently bonded new molecular entity

("NME"). NMEs are generally subjected to more involved regulatory examination and approval processes than non-NMEs. Lexaria has previously reported findings evidencing that NME formation did not occur following DehydraTECH formulation with other substances of interest such as nicotine and cannabidiol ("CBD"). Results from this work are expected to be reported ahead of schedule, by the first half of July.

HYPER-A21-1 and HYPER-A21-2 - Follow on blood pressure testing in animals pursuant to previously reported successful PK study findings.

Most results from these animal studies were released on May 6 and May 20, 2021 respectively demonstrating statistically significant gains in CBD absorption relative to controls using Lexaria's latest DehydraTECH 2.0 formulation innovations. The testing laboratory that performed this work has been engaged to perform certain follow-up work that includes monitoring of real-time animal blood pressure in response to select formulations from these PK evaluations. This work is hoped to complement Lexaria's previous human clinical study findings that have evidenced reduction in blood pressure following DehydraTECH-CBD administration. Animal dosing and in-life procedures have not yet commenced for this additional follow up work, but will be reported when developments warrant.

NSAID-A21-1 - A tolerability and PK study in animals evaluating ibuprofen and naproxen.

Test articles were manufactured in April as planned, contracts were executed in early May with the animal testing laboratory performing this work, and initial animal dosing commenced the week of May 17 ahead of schedule. This work is currently underway with pilot tolerability evaluations in rodents in an effort to determine dosing that evidences superior gastrointestinal tolerability comparing Lexaria's DehydraTECH test articles to concentration-matched controls. Pending a successful outcome of the pilot tolerability investigation, formal pharmacokinetic testing will follow. Reporting from this study work shall be provided when developments warrant.

Oral Nicotine: NIC-C21-1 (now NIC-A21-1) - A tolerability and PK study in animals evaluating oral nicotine.

This study has been renamed NIC-A21-1 following migration from an *in vitro* cell based study instead to an *in vivo* study in live anesthetized animals. This will allow Lexaria to perform a superior evaluation of the systemic absorption of nicotine upon oral pouch product dosing in the animals. Human oral pouch dosing of nicotine is a rapidly growing trend in several locations around the world and Lexaria believes this redesigned study will more appropriately measure outcomes. The contract has been signed with the animal testing laboratory that will be performing this work and all study test articles have been manufactured and are in the process of being shipped to the laboratory for dosing purposes. Animal dosing in this study is scheduled to commence in July ahead of the originally stated September/October dosing commencement schedule for NIC-C21-1. Reporting from this study will be provided when developments warrant.

Summary

Lexaria relies on applied R&D programs to generate confirmatory results and data evidencing improved drug delivery characteristics that enable pursuit of commercial opportunities and/or corporate relationships. As such, Lexaria considers advancing these applied R&D studies to be a vital early step towards its goal of establishing commercial

relationships with potential industry partners to utilize DehydraTECH within their existing product lines or in the development of new product lines.

All studies referenced within this press release are fully funded from existing Company resources and performed by independent third-party testing laboratories.

The Company is not making any express or implied claims that it has the ability to eliminate, cure or contain the COVID-19 (or SARS-2 Coronavirus) at this time with any of its work with antiviral drugs reported herein.

About Lexaria Bioscience Corp.
Lexaria Bioscience Corp.'s proprietary drug delivery technology, DehydraTECH™, improves the way active pharmaceutical ingredients (APIs) enter the bloodstream by promoting healthier oral ingestion methods and increasing the effectiveness of fat-soluble active molecules, thereby lowering overall dosing. The Company's technology can be applied to many different ingestible product formats, including foods, beverages, oral suspensions, tablets, and capsules. DehydraTECH has repeatedly demonstrated since 2016 with cannabinoids and nicotine the ability to increase bio-absorption by up to 5-10x, reduce time of onset from 1 - 2 hours to minutes, and mask unwanted tastes; and is planned to be further evaluated for orally administered bioactive molecules, including anti-virals, cannabinoids, vitamins, non-steroidal anti-inflammatory drugs (NSAIDs), and nicotine. Lexaria has licensed DehydraTECH to multiple companies including a world-leading tobacco producer for the development of smokeless, oral-based nicotine products and for use in industries that produce cannabinoid beverages, edibles, and oral products. Lexaria operates a licensed in-house research laboratory and holds a robust intellectual property portfolio with 18 patents granted and approximately 60 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, 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.

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

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