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Lexaria Completes Successful Antiviral Drug Molecular Characterization Study With Canada's National Research Council

VIRAL-MC21-1 Demonstrates Stability of DehydraTECH™-Enabled Antiviral Drugs

KELOWNA, BC / ACCESSWIRE / July 15, 2021 /Lexaria Bioscience Corp. (NASDAQ:LEXX)(NASDAQ:LEXXW) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms is pleased to announce results from its antiviral drug molecular characterization study VIRAL-MC21-1 recently completed by Canada's premier federally funded research organization, the National Research Council ("NRC").

The NRC has successfully confirmed Lexaria's study objectives, demonstrating DehydraTECH™ processing and formulation technology does not create a covalently bonded new molecular entity ("NME") and that each drug tested remained stable and did not undergo change in chemical structure. The five drugs studied were remdesivir, ebastine, bepridil, rupintrivir and colchicine, which have antiviral effects through a variety of different modes of action.

These findings are strongly supportive of accelerated regulatory filings such as the 505(b)(2) pathway permitted by the Food and Drug Administration ("FDA") and other international regulators, for more rapid market authorizations of prospective DehydraTECH-enabled, repurposed antiviral drugs. By comparison, NMEs are generally subjected to more involved regulatory examination and approval processes than non-NMEs.

The work carried out by NRC consisted primarily of nuclear magnetic resonance ("NMR") and Liquid Chromatography-High Resolution Mass Spectrometry ("LC-HRMS") evaluations. NMR spectroscopy is an analytical chemistry method that can determine purity and molecular structures. LC-HRMS uses mass spectrometers and can be used to determine elemental compositions and distinguish between different molecules.

As Lexaria's validating datasets continue to grow, the Company will pursue strategic collaboration opportunities with established pharmaceutical industry partners to incorporate DehydraTECH technology with antiviral drugs including and/or similar to those that are currently being investigated.

DRUG USES:

REMDESIVIR is a well-known nucleotide reverse transcriptase inhibitor, available under the trade name Veklury® from Gilead Sciences Inc., that interferes with the SARS-CoV-2 viral replication life cycle and has received emergency use authorization in many regions of the

world for treatment of COVID-19. It is also used to treat hepatitis, Ebola disease and Marburg virus infections.

EBASTINE is an antihistamine drug that has potent effects in inhibiting the SARS-CoV-2 main protease (Mpro, also called the 3CL protease) blocking viral entry into human cells, together with effects to reduce COVID-19 inflammatory reactions. It is also used to treat allergic rhinitis, hives, idiopathic urticaria, and relief from mosquito bites and atopic dermatitis.

BEPRIDIL is used primarily to treat angina pectoris due to coronary heart disease and is indicated to treat chronic stable angina; is being investigated to treat atrial fibrillation; and, in at least one cellular study utilizing Vero E6 cells, was shown to inhibit cytopathogenic effect induces by SARS-CoV-2.

RUPINTRIVIR was originally developed for treatment of rhinoviruses (common colds) and is also being investigated for treatment of picornaviruses, norovirus, and coronaviruses such as SARS-CoV-2.

COLCHICINE is an approved therapeutic with anti-inflammatory effects that is principally used to treat gout and conditions like cardiac inflammation (i.e., pericarditis), but also has potent effects in mitigating the cytokine storm associated with SARS-CoV-2/COVID-19. Colchicine is also sometimes recommended and used to treat emergent pericarditis in children in cases where this form of cardiac inflammation develops following administration of mRNA COVID-19 vaccines. It is also used to treat atrial fibrillation and Periodic Fever Syndromes.

Chris Bunka, CEO, is responsible for the accuracy of this press release. The Company is not making any express or implied claims that its products have the ability to eliminate, cure or contain the COVID-19 pandemic (or SARS-CoV-2 or novel Coronavirus) or any other virally induced diseases at this time.

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. Since 2016, DehydraTECH has repeatedly demonstrated the ability to increase bio-absorption with cannabinoids and nicotine 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-viral drugs, vitamins, non-steroidal anti-inflammatory drugs (NSAIDs) and more. 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 20 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.

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