

December 22, 2020



Lexaria Expands COVID-19 Drug Research Program Utilizing Proprietary DehydraTECH

Remdesivir is one of several drugs to be evaluated

KELOWNA, BC / ACCESSWIRE / December 22, 2020/ Lexaria Bioscience Corp. (OTCQX:LXRP)(CSE:LXX) (the "Company" or "Lexaria"), a global innovator in drug delivery platforms, today announced that it has initiated the next phase of its antiviral drug research program following successful results from a recent animal study announced on December 1, 2020.

The recent animal study demonstrated that DehydraTECH™ technology significantly improved drug delivery in animals of representative drugs from two classes of antiviral therapies (a Protease Inhibitor and a Reverse Transcriptase Inhibitor) under investigation against SARS-CoV-2/COVID-19 and already in use against HIV/AIDS.

Lexaria has commissioned the next phase of follow-on studies designed to evaluate the potential of its DehydraTECH technology to enhance the delivery and efficacy of additional antiviral drugs, including remdesivir (a nucleotide reverse transcriptase inhibitor or "NtRTI"); as well as three additional drugs known to target the main protease associated with SARS-CoV-2 infection.

The studies will include Lexaria's proprietary DehydraTECH-enabled formulations (the "Formulations") administered via oral gavage to male Sprague-Dawley rats to quantify and compare total drug delivery into the rodent bloodstream to control formulations. These studies will be conducted by a third-party pharmacokinetic testing laboratory in Pennsylvania.

A second study will be undertaken using the services of a separate third-party laboratory to evaluate the relative antiviral activity of certain Formulations. In this separate investigation, Lexaria plans to observe the performance of the Formulations in an established cell culture model of SARS-CoV-2 infected cells in an effort to kill the virus. This will be the first time one of Lexaria's third-party contracted laboratories will work with live SARS-CoV-2 virus in conjunction with Lexaria's proprietary DehydraTECH. If the outcome is positive, Lexaria expects to proceed to larger *in vivo* efficacy testing in animals thereafter to determine if DehydraTECH-enabled formulation offers performance enhancements when given orally.

"With these additional antiviral drug studies, we are aggressively expanding and implementing the first of our strategic initiatives for 2021," said Chris Bunka, Chief Executive

Officer of Lexaria. "After our recent initial success in animals demonstrating DehydraTECH's ability to enhance drug delivery of two other antiviral drugs, we are excited to work with remdesivir, one of the world's leading drugs currently in use for treatment of COVID-19, to learn whether DehydraTECH may also enhance drug delivery characteristics of NtRTI's."

In addition, Lexaria expects to announce its 2021 R&D plans within the next 90 days. If executed as planned, the expanded R&D plans will result in the largest applied R&D program in the Company's history. Chris Bunka, CEO, is responsible for the accuracy of this news. 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-CoV2 or any strain of Coronavirus) or any other virally induced diseases at this time.

About Remdesivir

Remdesivir (brand name Veklury) is a broad-spectrum antiviral drug developed by Gilead Sciences and also available commercially for research purposes from other commercial suppliers, that is customarily used via injection. It received FDA-approval for the treatment of COVID-19 patients in the US on October 22, 2020 and has received conditional temporary use approval to treat COVID-19 in approximately 50 countries. Remdesivir has shown broad-spectrum antiviral activity against SARS-CoV2, and preclinically against Ebola and other viral pathogens.*

*<https://www.gilead.com/news-and-press/press-room/press-releases/2020/10/us-food-and-drug-administration-approves-gileads-antiviral-veklury-remdesivir-for-treatment-of-covid19>

About Lexaria

Lexaria Bioscience Corp.'s (OTCQX:LXRP, CSE:LXX) 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.

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 the antiviral research initiatives, receive regulatory approvals, or experience positive effects from any antiviral 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, 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 existing capital is sufficient for the Company's needs or that it will be able to raise additional capital. There is no assurance the Company will be capable of developing, marketing, licensing, or selling products containing any active ingredient. There is no assurance that any planned corporate activity, scientific research or study, business venture, letter of intent, technology licensing pursuit, patent application or allowance, consumer study, or any 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). 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.

INVESTOR CONTACT:

ir@lexariabioscience.com

Phone: 866-221-3341

SOURCE: Lexaria Bioscience Corp.

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