

## FORM 51-102F3 MATERIAL CHANGE REPORT

## Item 1 Name and Address of Company

BetterLife Pharma Inc. (the "Company") 1275 West 6<sup>th</sup> Avenue Suite 300 Vancouver, British Columbia V6H 1A6

## Item 2 Date of Material Change

October 2021

## Item 3 News Releases

News release dated October 12, 2021.

## Item 4 Summary of Material Change

## <u>AP-003</u>

In October 2021, the Company announced early positive in vitro results on its recombinant human interferon alpha-2b ("rhIFN $\alpha$ 2b") from Dr. Stephen Barr's Laboratory at the ImPaKT Facility at the Schulich School of Medicine & Dentistry, Western University, Ontario show potent anti-viral activity against the SARS-CoV-2 Delta variant (up to 97% protection in human cells infected with the virus). The Delta SARS-CoV-2 variant (B.1.617.2, India outbreak) causes more infections and spreads faster than earlier forms of the virus and leads to more severe illness in unvaccinated people (US Centers for Disease Control and Prevention [CDC], Sept 2021). Previously, the Company's rhIFN $\alpha$ 2b showed potent activity against the Wuhan reference strain, Alpha (B.1.1.7, UK), and the Beta (B.1.351, South Africa) variants. Further studies are ongoing to validate these preliminary results and to test rhIFN $\alpha$ 2b activity against Gamma (Brazil), Lambda (Peru), and the recent C.1.2 (South Africa) variant which contains mutations associated with increased transmissibility and the ability to evade antibodies therapy.

## <u>Corporate</u>

On October 14, 2021, the Company granted 520,000 stock options with exercise price of \$0.295 and expiry date of October 13, 2024 to a consultant.

## Item 5 Full Description of Material Change

Refer to Item 4 and the news release in Schedule "A".

## Item 6 Reliance on subsection 7.1(2) or (3) of National Instrument 51-102

This Report is not being filed on a confidential basis in reliance on subsection 7.1(2) of National Instrument 51-102.

## Item 7 Omitted Information

No information has been omitted on the basis that it is confidential information.

## Item 8 Executive Officer

Further information can be obtained from Ahmad Doroudian, Chief Executive Officer of the Company, at (604) 221-0595.

## Item 9 Date of Report

October 20, 2021

# SCHEDULE "A"



# Early Results of BetterLife Preclinical Study Show AP-003 (rhIFNα2b) Provides Up to 97% Protection in Human Cells Against the Delta Variant of SARS-CoV-2

VANCOUVER, October 12, 2021 - BetterLife Pharma Inc. ("BetterLife" or the "Company") (CSE: <u>BETR</u> / OTCQB: <u>BETRF</u> / FRA:<u>NPAU</u>), an emerging biotech company focused on the development and commercialization of inhaled antiviral therapy against COVID-19 and emerging viral infections, is pleased to announce early positive in vitro results from Dr. Stephen Barr's Laboratory at the state-of-the-art ImPaKT Facility at the Schulich School of Medicine & Dentistry, Western University, Ontario.

Early data of BetterLife's recombinant human interferon alpha-2b (rhIFN $\alpha$ 2b) show potent antiviral activity against the SARS-CoV-2 Delta variant (up to 97% protection in human cells infected with the virus).

The Delta SARS-CoV-2 variant (B.1.617.2, India outbreak) causes more infections and spreads faster than earlier forms of the virus and leads to more severe illness in unvaccinated people (US Centers for Disease Control and Prevention [CDC], Sept 2021). Previously, BetterLife's rhIFN $\alpha$ 2b showed potent activity against the Wuhan reference strain, Alpha (B.1.1.7, UK), and the Beta (B.1.351, South Africa) variants. Further studies are ongoing to validate these preliminary results and to test rhIFN $\alpha$ 2b activity against Gamma (Brazil), Lambda (Peru), and the recent C.1.2 (South Africa) variant which contains mutations associated with increased transmissibility and the ability to evade antibodies therapy.

"The Delta variant of SARS-CoV-2 is now the most common COVID-19 variant in the U.S., nearly two times as contagious as earlier variants, a great risk to unvaccinated people, and presents a challenge in developing therapeutics against the virus," said Ahmad Doroudian, CEO of BetterLife. "We are very pleased to see the early preclinical data confirming the high anti-viral activity of BetterLife's rhIFN $\alpha$ 2b against this variant of concern."

An <u>exploratory study</u> in Wuhan, China, in COVID-19 patients, showed that patients treated with inhaled rhIFN $\alpha$ 2b had a more rapid rate of viral clearance than patients in the comparator arm who did not receive inhaled rhIFN $\alpha$ 2b. As announced in BetterLife's <u>press release</u> on September 22, 2021, BetterLife and the Escuela de Medicina at the Pontificia Universidad Católica de Chile have initiated a Phase 1-2 randomized placebo controlled trial ("IN2COVID"; ClinicalTrials.gov Identifier: <u>NCT04988217</u>) in COVID-19 patients in Chile. The trial tests BetterLife's proprietary

inhaled rhIFN $\alpha$ 2b product, AP-003, versus placebo in early stage COVID-19 patients (<5 days of diagnosis of COVID-19).

Dr. Doroudian further commented, "COVID-19 is very much still a threat to the global population and its variants are a key challenge when developing therapeutics to protect against it. The broad mechanism of action of interferon is such that our scientists hypothesized it could be equally effective against different variants of concern. We are very pleased to see this being confirmed by early preclinical data which takes us one step closer to the potential outcome of an easy to administer broad acting treatment for early stage COVID-19."

# About BetterLife Pharma

BetterLife Pharma Inc. is an emerging biotechnology company engaged in the development and commercialization of next generation psychedelic products for the treatment of mental disorders. Utilizing drug delivery platform technologies, BetterLife is also refining and developing drug candidates from a broad set of complementary interferon-based technologies which have the potential to engage the immune system to fight virus infections, such as the coronavirus disease (COVID-19) and human papillomavirus.

For further information, please visit <u>www.abetterlifepharma.com</u>.

# About Western University, Dr. Stephen Barr Laboratory

Dr. Stephen Barr, PhD, is an Associate Professor in the Department of Microbiology & Immunology at the Schulich School of Medicine & Dentistry, Western University. His research focuses on the complex virus-host interactions of emerging viral pathogens, with a focus on the host interferon response. His team studies Containment Level 2 and Level 3 viruses such as HIV, Ebola-like viruses, and SARS-CoV-2, in the new state-of-the-art ImPaKT Facility featuring barrier-enclosed imaging scanners and instrumentation. This high-tech equipment allows Dr. Barr and his team to develop tools and methods to better understand the progression of emerging infectious diseases (in vitro and in vivo), identify/test novel antiviral agents, develop diagnostic reagents to characterize hidden reservoirs of pathogens, and for the early and accurate detection of infections. Dr. Barr is also part of Canada's Coronavirus Variants Rapid Response Network (CoVaRR-Net), whose goal is to rapidly answer critical and immediate questions regarding SARS-CoV-2 variants, such as their increased transmissibility, likelihood to cause severe cases of COVID-19, and resistance to vaccines.

For more information, please visit the Barr Lab (<u>https://publish.uwo.ca/~sbarr9/</u>) and CoVaRR-Net (<u>https://covarrnet.ca</u>).

## **Contact Information**

## **BetterLife Pharma:**

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## Western University:

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## **Cautionary Note Regarding Forward-Looking Statements**

No securities exchange has reviewed nor accepts responsibility for the adequacy or accuracy of the content of this news release. This news release contains forward-looking statements relating to product development, licensing, commercialization and regulatory compliance issues and other statements that are not historical facts. Forward-looking statements are often identified by terms such as "will", "may", "should", "anticipate", "expects" and similar expressions. All statements other than statements of historical fact, included in this release are forward-looking statements that involve risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations include the failure to satisfy the conditions of the relevant securities exchange(s) and other risks detailed from time to time in the filings made by the Company with securities regulations. The reader is cautioned that assumptions used in the preparation of any forward-looking information may prove to be incorrect. Events or circumstances may cause actual results to differ materially from those predicted, as a result of numerous known and unknown risks, uncertainties, and other factors, many of which are beyond the control of the Company. The reader is cautioned not to place undue reliance on any forward-looking information. Such information, although considered reasonable by management at the time of preparation, may prove to be incorrect and actual results may differ materially from those anticipated. Forwardlooking statements contained in this news release are expressly gualified by this cautionary statement. The forward-looking statements contained in this news release are made as of the date of this news release and the Company will update or revise publicly any of the included forward-looking statements as expressly required by applicable law.