

**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**

January 2022

**Item 3 News Releases**

News releases dated January 6, January 18 and January 20, 2022.

**Item 4 Summary of Material Change**

During January 2022, the Company announced that Dr. Eleanor Fish, the Company's Advisory Board Member, has been appointed to the Order of Canada on December 29, 2021. The Order of Canada is how Canada honours people who make extraordinary contributions to the nation. Dr. Fish was bestowed this order for her contributions to immunology, including her groundbreaking studies on the use of interferon-alpha in the treatment of disease.

For its BETR-001 (formerly TD-0148A) program, the Company obtained positive results from an in vivo oral bioavailability and food-effect pharmacokinetic (PK) study in beagle dogs. BETR-001 is a non-hallucinogenic derivative of lysergic acid diethylamide (LSD). Previous published studies have not included any data on PK for BETR-001. It was also unknown if presence of food would affect the bioavailability of orally administered BETR-001. The current study conducted by contract research organization, Nucro-Technics (Scarborough, ON, Canada), demonstrated the following key results after a single dose of oral BETR-001 (capsule) administered to beagle dogs:

- No significant difference was observed in bioavailability and total exposure of BETR-001 in PK profile of fed versus fasted beagle dogs.
- Oral bioavailability (%F), defined as the fraction of oral administered drug that reaches systemic circulation, was calculated to be 61% and 63% for fasted and fed states, respectively (no significant difference).
- The maximum systemic concentration (C<sub>max</sub>) of BETR-001 after a single oral dose was reached at 0.5 hr (T<sub>max</sub>), suggesting a quick uptake of the drug into the systemic circulation. The drug was detectable in systemic circulation eight hours post oral dose with an elimination rate constant (K<sub>el</sub>) of 0.4 per hour, pointing to the fraction of drug eliminated per unit of time.

The findings demonstrate that oral administration of a single dose of BETR-001 can reach the therapeutic range in the systemic circulation. The PK elimination constant (K<sub>el</sub>) of 0.4 per hour for BETR-001 indicates a low probability of toxicity as a result of drug accumulation in the systemic circulation.

The Company also received a written response from the U.S. Food and Drug Administration (FDA) to its pre-investigational new drug (pre-IND) application for the treatment of MDD with BETR-001. BETR-001 is currently undergoing IND-enabling non-clinical studies and GMP manufacturing for clinical trials. The FDA response is in general agreement with the Company's planned program for the development of BETR-001 and provided guidance regarding the BETR-001 IND-enabling non-clinical toxicology studies, its manufacturing strategy, and initial proposed clinical trial parameters.

**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**

January 20, 2022

**SCHEDULE "A"**



BetterLife Pharma

## Dr. Eleanor Fish, Advisory Board Member, Awarded Order of Canada

VANCOUVER, January 6, 2022 - BetterLife Pharma Inc. (“BetterLife” or the “Company”) (CSE: [BETR](#) / OTCQB: [BETRF](#) / FRA: [NPAU](#)), an emerging biotech company focused on the development and commercialization of cutting-edge treatments for mental disorders, is extremely pleased to share that Dr. Eleanor Fish, BetterLife’s Advisory Board Member, has been appointed to the Order of Canada on December 29, 2021. The Order of Canada is how Canada honours people who make extraordinary contributions to the nation. Dr. Fish was bestowed this order for her contributions to immunology, including her groundbreaking studies on the use of interferon-alpha in the treatment of disease.

Dr. Fish commented, “I am humbled by this honour that should be shared with my many colleagues who I have worked alongside over the years and delighted that BetterLife and Altum’s management team shares my interest in interferon. I look forward to a positive outcome with our trial in Chile, evaluating the therapeutic effectiveness of inhaled interferon-alpha2b against COVID-19.”

“On behalf of our entire team at BetterLife and Altum, we want to congratulate Dr. Fish for receiving this distinguished honor. We are very privileged to have Dr. Fish as one of the Principal Investigators of Altum’s Phase 2 study currently underway at Pontificia Universidad Católica de Chile. Her expertise and support to develop our interferon-alpha2b program, AP-003, will be essential as we move forward through our clinical trials in 2022,” said BetterLife’s Chief Executive Officer, Dr. Ahmad Doroudian.

### About BetterLife Pharma

BetterLife Pharma Inc. is an emerging biotechnology company primarily focused on developing and commercializing two compounds, BETR-001(Formerly TD-0148A) and BETR-002(Formerly TD-010), to treat neuro-psychiatric and neurological disorders.

BetterLife’s wholly owned subsidiary, Altum Pharmaceuticals, owns drug candidates for the treatment of viral infections such as COVID-19 and is in the process of seeking strategic alternatives for further development.

For further information, please visit [BetterLife Pharma](#).

### Contact Information

David Melles, Investor Relations Manager  
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Phone: 1-778-887-1928

### **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. Forward-looking statements contained in this news release are expressly qualified 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.



## BetterLife Obtains Positive In Vivo Oral Bioavailability, Food Effect and Pharmacokinetics Data for BETR-001

VANCOUVER, British Columbia, January 18, 2022 - BetterLife Pharma Inc. (“BetterLife” or the “Company”) (CSE: [BETR](#) / OTCQB: [BETRF](#) / FRA: [NPAU](#)), an emerging biotech company focused on the development and commercialization of 2<sup>nd</sup>-generation non-hallucinogenic psychedelic analogs for the treatment of neuropsychological disorders, is pleased to announce it has obtained positive results from an in vivo oral bioavailability and food-effect pharmacokinetic (PK) study on BETR-001 in beagle dogs. BETR-001 (2-bromo-LSD, formerly TD-0148A) is a non-hallucinogenic derivative of lysergic acid diethylamide (LSD). Previous published studies have not included any data on PK for BETR-001. It was also unknown if presence of food would affect the bioavailability of orally administered BETR-001. The current study conducted by contract research organization, Nucro-Technics (Scarborough, ON, Canada), demonstrated the following key results after a single dose of oral BETR-001 (capsule) administered to beagle dogs:

- No significant difference was observed in bioavailability and total exposure of BETR-001 in PK profile of fed versus fasted beagle dogs.
- Oral bioavailability (%F), defined as the fraction of oral administered drug that reaches systemic circulation, was calculated to be 61% and 63% for fasted and fed states, respectively (no significant difference).
- The maximum systemic concentration ( $C_{max}$ ) of BETR-001 after a single oral dose was reached at 0.5 hr ( $T_{max}$ ), suggesting a quick uptake of the drug into the systemic circulation. The drug was detectable in systemic circulation eight hours post oral dose with an elimination rate constant ( $K_{el}$ ) of 0.4 per hour, pointing to the fraction of drug eliminated per unit of time.

The findings demonstrate that oral administration of a single dose of BETR-001 can reach the therapeutic range in the systemic circulation. The PK elimination constant ( $K_{el}$ ) of 0.4 per hour for BETR-001 indicates a low probability of toxicity as a result of drug accumulation in the systemic circulation.

“We are very pleased with the results of the first oral PK study for BETR-001 drug manufactured by BetterLife’s patented synthesis and formulation process. Although 2-bromo-LSD has been tested in rodents and human studies in the past, this is the first study to characterize its PK profile in vivo”, stated BetterLife’s Chief Executive Officer, Dr. Ahmad Doroudian. He added, “These data, together with the ongoing IND-enabling nonclinical toxicology studies, will support the filing of BETR-001’s IND application with the FDA and initiation of human clinical trials in H2 2022.”

## **About BetterLife Pharma**

BetterLife Pharma Inc. is an emerging biotechnology company primarily focused on developing and commercializing two compounds, BETR-001 and BETR-002, to treat neuro-psychiatric and neurological disorders.

BETR-001 (formerly TD-0148A), which is in preclinical and IND-enabling studies, is a non-hallucinogenic and non-controlled LSD derivative in development and it is unique in that it is unregulated and therefore can be self-administered. BetterLife's synthesis patent for BETR-001 eliminates regulatory hurdles and its pending patent for composition and method of use covers treatment of depression, cluster headaches, post-traumatic stress disorder and other neuro-psychiatric and neurological disorders.

BETR-002 (formerly TD-010), which is in preclinical and IND-enabling studies, is based on honokiol, the active anxiolytic ingredient of magnolia bark. BetterLife's pending method of use and formulations patent covers treatment of anxiety related disorders including benzodiazepine dependency.

BetterLife also owns a drug candidate for the treatment of viral infections such as COVID-19 and is in the process of seeking strategic alternatives for further development.

For further information, please visit [BetterLife Pharma](#).

## **Contact Information**

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## BetterLife Receives FDA Response On Its Pre-IND Application For Major Depressive Disorder (MDD) Treatment With BETR-001

British Columbia, January 20, 2022 - BetterLife Pharma Inc. (“BetterLife” or the “Company”) (CSE: [BETR](#) / OTCQB: [BETRE](#) / FRA: [NPAU](#)), an emerging biotech company focused on the development and commercialization of 2nd-generation non-hallucinogenic psychedelic analogs for the treatment of neuropsychological disorders, is pleased to announce it has received a written response from the U.S. Food and Drug Administration (FDA) to its pre-investigational new drug (pre-IND) application for the treatment of MDD with BETR-001. BETR-001 (2-bromo-LSD, formerly TD-0148A) is a non-hallucinogenic derivative of lysergic acid diethylamide (LSD) and is currently undergoing IND-enabling non-clinical studies and GMP manufacturing for clinical trials. The FDA response is in general agreement with the Company’s planned program for the development of BETR-001 and provided guidance regarding the BETR-001 IND-enabling non-clinical toxicology studies, its manufacturing strategy, and initial proposed clinical trial parameters.

“We are very pleased with the outcome of the BETR-001 pre-IND meeting with the FDA. The response from the FDA confirms that our current program will support the filing of BETR-001’s IND application and initiation of human clinical trials by the third quarter of this year. Being a non-hallucinogenic derivative of LSD makes BETR-001 a unique molecule with therapeutic potential for the treatment of debilitating psychiatric and neurological disorders with high unmet need, such as major depressive disorders and cluster headaches. Our team is fully dedicated to start the human clinical trials in the United States by early second half of this year,” said BetterLife’s Chief Executive Officer, Dr. Ahmad Doroudian.

### **About BetterLife Pharma**

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BETR-001 (formerly TD-0148A), which is in preclinical and IND-enabling studies, is a non-hallucinogenic and non-controlled LSD derivative in development and it is unique in that it is unregulated and therefore can be self-administered. BetterLife’s synthesis patent for BETR-001 eliminates regulatory hurdles and its pending patent for composition and method of use covers treatment of depression, cluster headaches, post-traumatic stress disorder and other neuro-psychiatric and neurological disorders.

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