



## BetterLife Obtains Positive TD-0148A Data in Preclinical Models of Depression

VANCOUVER, British Columbia, Dec. 09, 2021 (GLOBE NEWSWIRE) -- 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 pleased to announce it has obtained the first set of positive data showing anti-depressant properties of its lead compound, 2-bromo-LSD ("TD-0148A") in animal depression models, as part of its collaboration with the laboratory of Dr. Argel Aguilar-Valles at Carleton University's (Carleton) Department of Neuroscience.

TD-0148A is a second-generation Lysergic Acid Diethylamide ("LSD") derivative molecule that BetterLife believes will mimic the therapeutic potential of LSD without causing psychedelic effects, such as hallucinations. Both single and repeat dose treatments with TD-0148A significantly reversed the depressive-like behavior in chronically-stressed female mice. The depressive-like behaviors assessed in the study included open-field test (a measure of exploratory behavior) and splash test (measure of anhedonia and self-hygiene behavior). Female mice demonstrated clear signs of depression following CVS as indicated by significant reduction in exploratory and grooming behaviors in open-field and splash tests, respectively. However, TD-0148A treatment showed anti-depressant activity by significantly reversing both depressive-like behaviors in these mice.

"We are very excited to confirm the projected anti-depressant properties of TD-0148A in rodent depression models conducted by Dr. Aguilar-Valles and his team. There is a high unmet need for novel anti-depressants for the treatment of major depressive disorder ('MDD') and treatment-resistant depression ('TRD') and these early data provide evidence for the therapeutic potential of TD-0148A as an anti-depressant. BetterLife is fully focused on bringing TD-0148A to the US IND stage and into the clinic as soon as possible, and our collaborations with global experts such as Dr. Aguilar-Valles, a leading scientist in depression research, will help us realize our vision," said BetterLife's Chief Executive Officer, Dr. Ahmad Doroudian.

Dr. Argel Aguilar-Valles commented: "We are pleased to collaborate with the BetterLife team in demonstrating the anti-depressant properties of TD-0148A in our models. The high rate of resistance to SSRI and other first-line treatments in MDD indicates an urgent unmet need for alternative anti-depressant treatments. LSD and other psychedelic drugs have been shown to have anti-depressant effects, and non-hallucinogenic derivatives of these drugs such as TD-0148A represent a promising alternative."

### About BetterLife Pharma

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

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 TD-0148A 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. The global depression drugs market reached US\$12.41 billion in 2019 and projected to reach near US\$25 billion by 2030. According to the WHO, depression is one of the leading causes of disability, impacting approximately 265 million people in the world.

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 and insomnia. The global benzodiazepines market is expected to grow to US\$4.15 billion in 2017 (from US\$3.48 billion in 2019) at a CAGR of 2.25%.

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](#).

### About the Department of Neuroscience at Carleton University

Carleton Neuroscience has an international reputation for research on stress and its effects on brain functioning and mental health. The department has an interdisciplinary approach to understanding the emergence, prevention and treatment of mental and physical disorders.

For more information, please visit [www.carleton.ca/neuroscience](http://www.carleton.ca/neuroscience).

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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.