Bright Minds Biosciences proprietary compound, BMB-201, 5-HT2C/2A mixed agonist, demonstrated similar efficacy to morphine in preclinical pain models

- *BMB-201 demonstrated dose-dependent efficacy in pain models*
- *BMB-201 demonstrated similar efficacy to morphine in several pain models*

NEW YORK, Oct. 16, 2024 -- Bright Minds Biosciences Inc. (NASDAQ: DRUG), a pioneering company focused on developing highly selective 5-HT2 agonists for the treatment of drug-resistant epilepsy, depression, and other CNS disorders, is excited to announce positive data from the preclinical testing of BMB-201 completed with National Institute of Health pain screening (PSPP) program.

Preclinical pain models included plantar incision and L5/L6 nerve ligation rat models, where the drug candidate was tested along with morphine and gabapentin as positive controls.

Key Highlights from the Study:

In nerve ligation pain models, BMB-201 had similar efficacy to morphine, demonstrating superior reductions in mechanical allodynia and pain-related behaviors.

Female rodents experienced a marked improvement in both pain relief and guarding behavior, with higher doses producing a significant therapeutic effect.

BMB-201's efficacy suggests that it may provide better pain relief than traditional opioid treatments, without the associated risks of dependency and side effects.

"These findings are a significant step forward in our mission to develop safer and more effective treatments for chronic pain," said Jan Torleif Pedersen, Chief Scientific Officer of Bright Minds. "The fact that BMB-201 outperforms morphine in preclinical models is a testament to the potential of serotonergic therapies in pain management."

Next Steps: With these promising preclinical results, Bright Minds plans to advance BMB-201 into clinical trials to further evaluate its safety and efficacy in human subjects. The company aims to position BMB-201 as a non-opioid alternative for neuropathic pain relief, addressing a significant unmet need in the pain management landscape. BMB-201 constitutes a novel MoA for the modulation of pain perception.

This data has been presented at Society for Neuroscience's annual meeting at the NIH Satellite Forum. The poster is available on www.brightmindsbio.com.

About BMB-201

BMB-201, a selective 5-HT2A/2C receptor agonist, was designed to harness the analgesic potential of serotonin modulation without the hallucinogenic effects commonly associated with 5-HT2A activation. As a prodrug of BMB-A39a, it exhibits minimal activity at the 5-HT2B receptor, ensuring a reduced risk of side effects.

About Bright Minds Biosciences
Bright Minds Biosciences is a biotechnology company developing innovative treatments for patients with neurological and psychiatric disorders. Our pipeline includes novel compounds targeting key receptors in the brain to address conditions with high unmet medical need, including epilepsy, depression, and other CNS disorders. Bright Minds is focused on delivering breakthrough therapies that can transform patients' lives.

Bright Minds Biosciences has developed a unique platform of highly selective serotonergic agonists exhibiting selectivity at different serotonergic receptors. This has provided a rich portfolio of NCE programs within neurology and psychiatry.

Forward-Looking Statements

This news release contains "forward-looking information". Often, but not always, forward-looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates", or "believes" or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Forward-looking statements in this news release include design, progress, and completion of the BREAKTHROUGH *Study, future clinical development of BMB-101, and future intended use or therapeutic benefit of BMB-101 to treat refractory epilepsy disorders. A variety of factors, including known and unknown risks, many of which are beyond our control, could cause actual results to differ materially from*

the forward-looking information in this news release. These factors include the company's financial position and operational runway, regulatory risk to operating in the pharmaceutical industry, and inaccuracies related to the assumption made by management relating to general availability of resources required to operate the studies noted in this news release. Additional risk factors can also be found in the Company's public filings under the Company's SEDAR+ profile at www.sedarplus.ca. Forward-looking statements contained herein are made as of the date of this news release and the Company disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or results or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. The Company undertakes no obligation to update forward-looking statements if circumstances, management's estimates or opinions should change, except as required by securities legislation. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements.

The Canadian Securities Exchange has neither approved nor disapproved the information contained herein and does not accept responsibility for the adequacy or accuracy of this news release.

Contact Information

Alex Vasilkevich
Chief Operating Officer
Bright Minds Biosciences Inc.
Phone: (414)7316422
Email: alex@brightmindsbio.com
Website: www.brightmindsbio.com