



## Bright Minds Biosciences Receives a Favorable Written Opinion from the International Searching Authority for BMB-202

April 19, 2023

— BMB-202 is a highly selective 5-HT<sub>2A</sub> agonist that exhibits a more than 30-fold selectivity over 5-HT<sub>2C</sub> and more than 500-fold selectivity over 5-HT<sub>2B</sub> –

— BMB-202 is the first clinical candidate from an extensive portfolio of selective 5-HT<sub>2A</sub> and 5-HT<sub>2A/2C</sub> agonists inspired from natural compound scaffolds –

Vancouver, British Columbia, April 19, 2023 – Bright Minds Biosciences Inc. (CSE:DRUG) (NASDAQ:DRUG) (“**Bright Minds**” or the “**Company**”), a biotechnology company focused on developing novel drugs for the targeted treatment of neuropsychiatric disorders, epilepsy, and pain, today announced that the International Searching Authority reviewed its international patent application directed to phenethylamine compounds and issued a Written Opinion indicating that Bright Minds’ core phenethylamine compounds of interest are novel and inventive over the searched prior art.

Bright Minds recently filed an international patent application (assigned a filing number of PCT/CA2023/050003) directed at compounds that belong to the phenethylamine class of molecules, which the Company believes are potentially best in class compounds with an optimized short half-life, highly potent and extreme selectivity relative to other 5-HT<sub>2A</sub> agonists in development. Compounds from the Company’s 5-HT<sub>2A</sub> and 5-HT<sub>2A</sub>/5-HT<sub>2C</sub> programs are contained in this patent application, including its lead 5-HT<sub>2A</sub> agonist, BMB 202, as well as other backup and compounds of high interest from both programs. While the Written Opinion is non-binding, the Written Opinion is encouraging news and supports the view that Bright Minds has developed patentable phenethylamine compounds.

“We are very pleased with this favorable opinion and believe that it validates our drug discovery capabilities. This is an important first step in protecting our compounds of interest in jurisdictions around the world, as we continue to pursue innovation in the treatment of multiple brain-related disorders,” stated Ian McDonald, CEO of Bright Minds.

### About BMB 202

BMB-202 is a highly selective 5-HT<sub>2A</sub> agonist with proprietary intellectual property. BMB-202 exhibits a more than 30-fold selectivity over 5-HT<sub>2C</sub> and more than 500-fold selectivity over 5-HT<sub>2B</sub>. BMB-202 has shown two-fold superior potency compared to psilocin in vitro. As opposed to the first-generation psychedelics, BMB-202 is a full agonist at 5-HT<sub>2A</sub> receptor and does not have significant activity at other 5-HT receptors. BMB-202 is a fast acting, short duration, C<sub>max</sub> driven compound. We call these fast-on-fast-off compounds with anticipated patient discharge around two hours. BMB-202 exhibits excellent drug-like properties, brain penetrance and has demonstrated antidepressant drug profile in vivo. BMB-202 is the first clinical candidate from an extensive portfolio of selective 5-HT<sub>2A</sub> and 5-HT<sub>2A/2C</sub> agonists inspired from natural compound scaffolds.

### About Bright Minds

Bright Minds is focused on developing novel transformative treatments for neuropsychiatric disorders, epilepsy, and pain. Bright Minds has a portfolio of next-generation serotonin agonists designed to target neurocircuit abnormalities that are responsible for difficult to treat disorders such as resistant epilepsy, treatment resistant depression, PTSD, and pain. The Company leverages its world-class scientific and drug development expertise to bring forward the next generation of safe and efficacious drugs. Bright Minds’ drugs have been designed to potentially retain the powerful therapeutic aspects of psychedelic and other serotonergic compounds, while minimizing the side effects, thereby creating superior drugs to first-generation compounds, such as psilocybin.

### About BMB-101

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*This news release includes certain statements that may be deemed "forward-looking statements." All statements in this new release, other than statements of historical facts, that address events or developments that the Company expects to occur, are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects," "plans," "anticipates," "believes," "intends," "estimates," "projects," "potential," and similar expressions, or that events or conditions "will," "would," "may," "could," or "should" occur. Forward-looking information in this news release includes statements related to the Company's drug discovery capabilities, the future status of BMB-202 as a patentable compound or possibly as a best in class compound, the use of BMB-202 to treat disorders, and the pursuit of innovation in the treatment of multiple brain-related disorders. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements include market prices, continued availability of capital and financing, results of clinical trials with respect to BMB-202 and other compounds that the Company may seek to test in the future, regulatory conditions with respect to in-human drug trials, and general economic, market or business conditions, and future findings by reviewers of the Company's patent applications. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. Forward-looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made. Except as required by applicable securities laws, the Company undertakes no obligation to update these forward-looking statements in the event that management's beliefs, estimates or opinions, or other factors, should change.*

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