UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of **January 2025**

Commission File No. **001-40997**

BRIGHT MINDS BIOSCIENCES INC.
(Translation of registrant's name into English)

19 Vestry Street,
New York, NY 10013
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F

Form 20-F [X] Form 40-F **[ ]**

SUBMITTED HEREWITH

Exhibits

99.1	News Release dated January 7, 2025

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BRIGHT MINDS BIOSCIENCES INC.

/s/ Ian McDonald

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Ian McDonald
President and Chief Executive Officer

Date: January 7, 2025

Bright Minds Biosciences Appoints Pharmaceutical Leader, Stephen Collins, M.D., Ph.D., as Chief Medical Officer

-- Dr. Collins brings extensive drug development and clinical expertise in epilepsy --

New York and Vancouver, BC – January 7, 2025 – Bright Minds Biosciences, Inc. ("Bright Minds," "BMB" or the "Company") (NASDAQ: DRUG), a pioneering company focused on developing highly selective 5-HT2 agonists for the treatment of drug-resistant epilepsy, depression, and other central nervous system (CNS) disorders, today announced that Stephen D. Collins, M.D., Ph.D., will join the Company as Chief Medical Officer (CMO), effective immediately. The Company also announces that Mark A. Smith M.D., Ph.D., will retire from his role as Acting CMO, but will continue to serve in an advisory capacity.

"As Bright Minds continues to evolve its focus to address conditions with high unmet medical need, including epilepsy, depression, and other central nervous system (CNS) disorders, we are thrilled to welcome Dr. Collins at this pivotal time. Throughout his distinguished career as an R&D leader, Steve has a demonstrated track record of leadership and strategic oversight from pre-clinical development through successful commercialization of several drugs across therapeutic areas. His experience advancing novel therapeutics in the CNS space aligns perfectly with our mission to develop the next generation of serotonin drugs to improve patient outcomes," said Ian McDonald, CEO and Co-founder of Bright Minds Biosciences.

"I am delighted to join the Bright Minds team and to continue investigating new chemical entities to treat rare epilepsies, an important and underserved area of therapeutics. With the recent initiation of the BREAKTHROUGH Study, an open-label Phase 2 clinical trial evaluating the safety, tolerability, and efficacy of BMB-101 in adult patients with classic Absence Epilepsy and Developmental Epileptic Encephalopathy (DEE), I look forward to bringing my experience to guide the Company through its next phase of clinical development," stated Dr. Collins.

Prior to joining Bright Minds, Dr. Collins simultaneously served as CEO of Biscayne Neurotherapeutics, a small molecule clinical stage company focused on CNS disorders, and CEO and President of Biscayne Pharmaceuticals. Biscayne was sold to Supernus Pharmaceuticals in October of 2018 for future development.

Before heading the two Biscayne companies, Dr. Collins held several top leadership positions at companies targeting CNS disorders, including as CEO of Neurotherapeutics Pharma and Chief Scientific Officer & VP for Clinical Affairs of Ovation Pharmaceuticals, a CNS-focused biopharmaceutical company acquired by Lundbeck A/S for US $963 million. Three anti-convulsant therapies were developed and approved there, including Sabril for Infantile Spasms and Frisium for Lennox-Gastaut Syndrome.

Prior to Ovation, Steve served as a Global Director at Johnson & Johnson, overseeing early-stage development of a variety of CNS agents and as a member of the global in-licensing advisory team. Prior to Johnson and Johnson, he worked in Abbott Laboratories' Pharmaceutical and Hospital

Products Divisions, where he developed drugs for a range of CNS indications, including Depakote, Depakote ER, Depacon, and Gabitril, as well as a range of older seizure medicines. He was responsible for all preclinical and clinical programs supporting the successful approval of multiple NDA and sNDA submissions.

Dr. Collins has served on several Boards of companies that have developed epilepsy drugs, including Spinifex Pharmaceuticals, which was acquired by Novartis, and Engage Therapeutics, which was sold to UCB S.A.

Prior to industry, Dr. Collins served on the faculty of medicine at Case Western Reserve University and the University of California-San Francisco and was principal investigator or investigator on over 40 drug and device trials. He earned his MD and PhD at Case Western Reserve University after completing undergraduate studies in Biophysics at the University of California, Berkeley.

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.

About BMB-101

BMB-101 is a novel scaffold 5-HT2CGq-protein biased agonist developed using structure-based drug design. It was explicitly designed for chronic treatment of neurological disorders where tolerance and drug resistance are common issues. Biased agonism at the 5-HT2C receptor is one of its key features and adds another layer of functional selectivity within a well-validated target. BMB-101 works exclusively via the Gq-protein signaling pathway and avoids beta-arrestin activation, which is crucial to minimize the risk of receptor desensitization and tolerance development. This provides a novel mechanism, anti-epileptic drug designed to provide sustained seizure relief in hard-to-treat patient populations. In preclinical studies, BMB-101 has demonstrated efficacy in animal models of Dravet Syndrome and numerous models of generalized seizures.

In Phase 1 clinical studies, BMB-101 was demonstrated to be safe and well tolerated at all doses. No Serious Adverse Events (SAEs) were observed, and Adverse Events (AEs) were mild in nature and in line with on-target effects for serotonergic drugs. An extensive target-

engagement study was conducted using both fluid biomarkers (transient prolactin release) and physical biomarkers (Quantitative Electroencephalogram, qEEG). Both methods confirmed robust central target engagement. A qEEG signature typical for anti-epileptic drugs was observed, with a selective depression of EEG power at frequencies observed during epileptic seizures. Furthermore, a potentiation of frontal gamma-power was observed in this study which could indicate the potential for improved cognition.

On September 12th, Bright Minds Biosciences announced the initiation of the BREAKTHROUGH Study, an open-label Phase 2 clinical trial evaluating the safety, tolerability, and efficacy of BMB-101in adult patients with classic Absence Epilepsy and Developmental Epileptic Encephalopathy (DEE).

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 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 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.

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