

## **BRIGHT MINDS BIOSCIENCES INC.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

(All amounts expressed in Canadian dollars, unless otherwise stated)

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This Management Discussion and Analysis ("MD&A") provides a detailed analysis of the business of Bright Minds Biosciences Inc. (the "Company") and describes the Company's financial results for the first quarter ended December 31, 2023. This MD&A should be read in conjunction with the condensed interim consolidated financial statements of the Company and related notes for the first quarter ended December 31, 2023, and the Company's audited consolidated financial statements for the year ended September 30, 2023, and the related notes. The Company's reporting currency is the Canadian dollar and all amounts in this MD&A are expressed in the Canadian dollars.

#### **Management's Responsibility**

The Company's management ("Management") is responsible for the preparation and presentation of the financial statements and this MD&A. The financial statements have been prepared in accordance with International Financial Accounting Standards ("IFRS") as issued by the International Accounting Standards Board. This MD&A is dated as of February 12, 2024 and has been prepared in accordance with the requirements of securities regulators, including National Instrument 51-102 of the Canadian Securities Administrators.

#### **Forward-Looking Statements**

This MD&A may include forward-looking statements including opinions, assumptions, estimates, the Company's assessment of future plans and operations, and, more particularly, statements concerning: the Company's milestone projections, including the timing, and costs; the effects of COVID-19 on the Company and its operations; the performance of the science team and related research and development subcontractors, Management and the Board of Directors ("Board") of the Company; current and future strategic partnerships; and the business plan of the Company, generally, including the eventual monetization of the portfolio of patented, selective serotonin (5-HT<sub>2C</sub> and 5-HT<sub>2A</sub>-receptor subtypes) agonists described later below. When used in this document, the words "will," "anticipate," "believe," "estimate," "expect," "intent," "may," "project," "should," and similar expressions are intended to be among the statements that identify forward-looking statements. The forward-looking statements are founded on the basis of expectations and assumptions made by the Company which include, but are not limited to: the financial strength of the Company; the eventual market for Company's products; the ability of the Company to obtain and retain applicable licences; and the successful development and implementation of a commercialization strategy, generally. Forward-looking statements are subject to a wide range of risks and uncertainties, and although the Company believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will be realized. Any number of important factors could cause actual results to differ materially from those in the forward-looking statements including, but not limited to, risks associated with the pharmaceutical industry in general, infringement on intellectual property, failure to benefit from current and future partnerships or successfully integrate acquisitions, actions and initiatives of federal and provincial governments and changes to government policies and the execution and impact of these actions, initiatives and policies, competition from other industry participants, adverse U.S., Canadian and global economic conditions, failure to comply with certain regulations, departure of key management personnel or inability to attract and retain talent regulatory and other factors more fully described from time to time in the reports and filings made by the Company with securities regulatory authorities. Except as required by applicable laws, the Company does not undertake any obligation to publicly update or revise any forward-looking statements.

Any financial outlook and future-oriented financial information contained in this document regarding prospective financial performance, financial position or cash flows is based on assumptions about future events, including economic conditions and proposed courses of action based on management's assessment of the relevant information that is currently available. Projected operational information contains forward-looking information and is based on a number of material assumptions and factors, as are set out above.

These projections may also be considered to contain future-oriented financial information or a financial outlook. The actual results of the Company's operations for any period will likely vary from the amounts set forth in these projections and such variations may be material. Actual results will vary from projected results. Readers are cautioned that any such financial outlook and future-oriented financial information contained herein should not be used for purposes other than those for

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which it is disclosed herein. The Company has no policy for updating forward looking information beyond the procedures required under applicable securities laws.

#### **BACKGROUND**

The Company was incorporated under the *Business Corporations Act* of British Columbia, Canada, on May 31, 2019. The Company's objective is to generate income and achieve long term profitable growth through the development of therapeutics to improve the lives of patients with certain severe and life-altering diseases. On February 8, 2021, the Company commenced trading on the Canadian Stock Exchange ("CSE") under the symbol DRUG. In addition, the Company began trading on the NASDAQ on November 8, 2021 under the same symbol. The Company's corporate headquarters is 19 Vestry St, New York, NY 10013, USA, and it's registered Canadian address is 1500 – 1055 West Georgia Street, Vancouver, British Columbia, V6E 4N7, Canada.

#### **QUARTERLY HIGHLIGHTS**

- Continued research and development ("R&D") of its pipeline programs according to plan, as discussed below.

#### **OVERALL PERFORMANCE**

The Company incurred a net loss of \$1,684,267 for the three months ended December 31, 2023, compared to a net loss of \$2,335,428 for the comparable period. The Company expects to continue to raise additional capital through dilutive equity financings and seek additional investment opportunities to further the development of therapeutics to improve the lives of patients with certain severe and life-altering diseases. The company may also pursue strategic partnerships and licensing opportunities with collaborators, which may or may not generate non-dilutive funds.

#### **GENERAL BUSINESS OVERVIEW**

##### **Overview**

The Company is a biotechnology company dedicated to developing the next-generation therapeutics to improve the lives of patients with severe and life-altering diseases. The Company is focused on new chemical entities (NCEs) for a variety of central nervous system disorders, including but not limited to pediatric epilepsies, as well as other neuro-psychiatric disorders, including but not limited to depression. The Company's R&D efforts focus on medical indications based on its expertise in 5-HT (serotonin) mediated diseases.

The Company does not advocate for the legalization of psychedelic substances for recreational use or otherwise, and its business is oriented to the discovery of novel, FDA/EMA-approved and regulated serotonergic therapeutics rather than the use of substances such as psilocybin or other psychedelics in new therapies. The Company does not have any direct or indirect involvement with illegal selling, production or distribution of substances in jurisdictions in which it operates.

##### **Targeted Next Generation CNS and Neuro-Psychiatric Therapies**

Serotonin (5-HT) is the most prominent neurotransmitter in the brain and modulates many biological functions. Dysfunction of serotonin receptors, transporters, and associated neurocircuits is fundamental to many diseases including epilepsies and neuro-psychiatric disorders such as depression. The class of medications known as selective serotonin reuptake inhibitors ("SSRIs"), such as Prozac®, Zoloft®, and Lexapro®, are widely used in the treatment of depression with a market of US\$14.3 Billion.<sup>1</sup> Similarly, other serotonergic drugs are widely used in the treatment of pain (Triptans in migraine),<sup>2</sup>

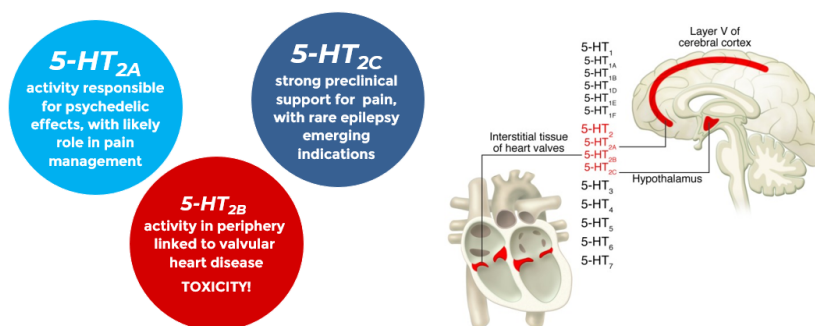
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<sup>1</sup> Research and Markets, "Global Antidepressants Market (2020 to 2030) - COVID-19 Implications and Growth" (21 April 2020), online during : *Intrado GlobeNewswire* <<https://www.globenewswire.com/news-release/2020/04/21/2019282/0/en/Global-Antidepressants-Market-2020-to-2030-COVID-19-Implications-and-Growth.html>>.

<sup>2</sup> Samar Nicolas & Diala Nicolas, "Triptans" (26 May 2020), online: *National Center for Biotechnology Information* <<https://www.ncbi.nlm.nih.gov/books/NBK554507/>>.

Alzheimer's and Parkinson's disease related psychosis (Pimavanserin),<sup>3</sup> and seizures (Fintepla).<sup>4</sup> The off-label use of psilocybin extracts in depression and cluster headache, as well as encouraging clinical trial data with psilocybin and MDMA in depression and PTSD illustrate the potential for advancing serotonergic therapies in neuropsychiatry, pain and substance use disorders (SUD). The full potential of serotonin-based therapeutics has not been achieved due to the lack of medications that are selective and specific to certain serotonin receptor subtypes that are fundamental to disease pathology, without non-specific effects, or other off-target effects on other serotonin receptors in the body that are associated with cardiac toxicities and have resulted in previous drugs being withdrawn from the market.

### Key 5HT<sub>2</sub> Receptor Targets



The Company has a portfolio of patented, selective serotonin (5-HT<sub>2C</sub>, 5-HT<sub>2A</sub> and 5-HT<sub>2C/A</sub>-receptor subtypes) agonists that were identified by using high-throughput screening methods in combination with advanced molecular modeling techniques to interrogate the interaction between the drug and its targeted receptors to increase downstream signaling while avoiding off-target effects.

<sup>3</sup> Cerner Multum, "Pimavanserin" (5 February 2020), online: *Drugs.com* <<https://www.drugs.com/mtm/pimavanserin.html>>.

<sup>4</sup> "Fintepla FDA Approval History", online: *Drugs.com* <<https://www.drugs.com/history/fintepla.html>>.

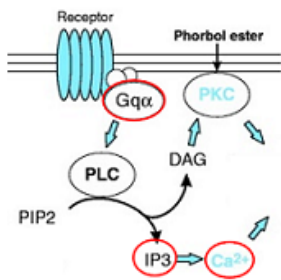
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**MANAGEMENT’S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

(All amounts expressed in Canadian dollars, unless otherwise stated)

Lead	Features	Development Stage	Indications
<b>5-HT<sub>2C</sub> agonists for CNS disorders</b>			
<b>BMB-101</b>	<ul style="list-style-type: none"> <li>Selective and biased 2C agonist, low 5-HT<sub>2A/2B</sub></li> <li>Biased agonism with minimal <u>Arrestin</u> recruitment</li> <li>Suitable for chronic dosing</li> </ul>	Clinical Studies - Phase 2 ready	<u>Developmental and Epileptic Encephalopathy</u> Impulsivity Disorders Addictions
<b>5-HT<sub>2A</sub> agonists for the treatment of depression</b>			
<b>BMB-202</b>	<ul style="list-style-type: none"> <li>Selective 5-HT<sub>2A</sub> "Fast-On-Fast-Off" compound</li> <li>High C<sub>max</sub> and short plasma half-life</li> <li>2-fold more potent than psilocin at 5-HT<sub>2A</sub></li> </ul>	IND-enabling tox	<u>Depression</u> Anxiety PTSD
<b>BMB-201</b>	<ul style="list-style-type: none"> <li>Low or absent psychedelic activity</li> <li>Devoid of 5-HT<sub>2B</sub> activity</li> </ul>	IND-enabling studies	<u>Depression</u> Anxiety
<b>BMB-xxx</b>	<ul style="list-style-type: none"> <li>Mixed 5-HT<sub>2A/2C</sub> compound</li> <li>10-fold more potent than psilocin at 5-HT<sub>2A</sub></li> </ul>	ADMEPK profiling	Neurology / Neuropsychiatric Indication
<b>Non-hallucinogenic psychoplastogens</b>			
	Non-hallucinogenic 5-HT <sub>2A</sub> agonists promoting neuroplasticity in brain (investigational program)	Pilot study	Neurology / Neuropsychiatric Indication

**Gq/11 Pathway**



**5-HT<sub>2A/2B/2C</sub> BRET Biosensor Platform**

- 1 5-HT<sub>2A/2B/2C</sub> Gq Dissociation BRET

**Orthologous Confirmatory Assays**

- 2 Gq-PI Hydrolysis
- 3 Gq-mediated Calcium Flux

**Off-target and Bias Profiling**

- 4 5-HT (and other) receptor functional activity  
Off-target validation
- 5 5-HT<sub>2</sub> or other 5-HT receptor Alternative Signaling Pathways (other G proteins, and β-arrestins)  
G protein vs. Arrestin Bias Intra-G protein bias

**BRIGHT MINDS BIOSCIENCES INC.****MANAGEMENT’S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

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**Drug Development Process**

The current objective of the Company is to advance the investigational drugs to clinical trials, or to achieve strategic partnerships and/or license agreements with earlier, pre-clinical R&D programs/assets. To achieve this the Company is focused on achieving the following milestones:

1. Lead and back-up compounds synthesis and selection.
2. *In-vitro* and *in-vivo* pharmacology screening for lead and back-up compounds as well as studies demonstrating efficacy and safety in relevant animal models.
3. Investigational new drug (IND) package. The package includes pharmacology, drug metabolism, pharmacokinetics and toxicology studies. This package is completed in GLP (good laboratory practice) lab conditions. IND application should be approved by FDA.
4. First in human studies in Australia: Single Dose/Multiple Ascending Dose escalation studies (SAD and MAD) and phase 1b efficacy studies. Studies have been completed in 2023.
5. Phase 2 clinical studies to evaluate efficacy. Initiation of Phase 2 is planned in 2024.

**Completion and ongoing work of major R&D Projects:****5-HT<sub>2C</sub>: BMB-101 for the treatment of rare pediatric epilepsies and other neurological and neuro-psychiatric disorders:**

		<b>Studies Completed &amp; Other Milestones Accomplished:</b>	
		<b>As of Period Ended, January 2024</b>	<b>Ongoing</b>
<b>Chemistry, Manufacturing and Controls (“CMC”):</b>			
		<ul style="list-style-type: none"> <li>• Completion of GLP lot of BMB-101 drug substance for use in toxicology studies</li> <li>• Manufacturing of GMP batch for human studies</li> <li>• Formulation development work</li> <li>• Production of drug product for clinical trial</li> </ul>	<ul style="list-style-type: none"> <li>• Stability work for drug substance and drug product</li> <li>• Improved formulation development planned</li> </ul>
<b>Pharmacology &amp; Toxicology:</b>			
	Pharmacodynamics	<ul style="list-style-type: none"> <li>• BRET assays, 5-HT receptors profiling; PD in animal models of Dravet;</li> <li>• Scn1aLab zebrafish model of Dravet syndrome</li> <li>• Mouse 6-Hz psychomotor seizure model</li> <li>• Hyperthermia-induced seizures in Scn1a+/- mice</li> <li>• SmartCube assay</li> </ul>	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
	Safety Pharmacology	<ul style="list-style-type: none"> <li>• In Vitro Safety Pharmacology Profiling at Eurofins</li> </ul>	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
	ADME/PK	<ul style="list-style-type: none"> <li>• In vitro/in vivo and cross-species ADME/PK, human PK prediction</li> </ul>	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
	Toxicology	<ul style="list-style-type: none"> <li>• 28-day toxicology, 90-day toxicology</li> </ul>	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
		<ul style="list-style-type: none"> <li>• Chronic toxicology initiated</li> </ul>	<ul style="list-style-type: none"> <li>• Initiated December 2023</li> </ul>
<b>In vivo &amp; In vitro Efficacy; Other MoA-Related Studies</b>			
		<ul style="list-style-type: none"> <li>• Fentanyl self-administration rat model of Opioid Use</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

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	<ul style="list-style-type: none"> <li>Binge eating disorder rat model (backup compound)</li> <li>Testing of BMB-101 for behavioral changes in APP+ps1 mice</li> </ul>	
<ul style="list-style-type: none"> <li><b>Clinical Studies</b></li> </ul>		
First in human clinical studies initiated in Australia 09.22	<ul style="list-style-type: none"> <li>Placebo controlled phase 1 SAD, MAD and food effects studies.</li> <li>Biomarkers analysis from clinical studies</li> </ul>	<ul style="list-style-type: none"> <li>Study successfully completed October 2023</li> </ul>
Phase II clinical study	Open label phase IIa study in photosensitive epilepsies	Study planning ongoing

**5-HT<sub>2A</sub>: Novel compounds for the treatment of Depression and other neuro-psychiatric disorders**

Three separate 5-HT<sub>2A</sub>-agonist programs are ongoing in-house:

1. Lead program BMB-202 is a fast-on-fast-off (FOFO) compound exhibiting high Cmax and short plasma half-life
2. Mixed 5-HT<sub>2A/2C</sub> compounds, exhibiting longer plasma half-life, suitable for once daily administration.
3. Non-hallucinogenic 5-HT<sub>2A</sub> - agonists, an investigational program attempting to identify the mechanism triggering the dissociative effect of classical psychedelics such as psilocybin.

		<b>Studies Completed &amp; Other Milestones Accomplished:</b>	
		<b>As of Period Ended, January 2024</b>	<b>Ongoing</b>
<b>Chemistry, Manufacturing and Controls (“CMC”):</b>			
		<ul style="list-style-type: none"> <li>SAR work on 5-HT<sub>2A/C</sub> agonists</li> </ul>	<ul style="list-style-type: none"> <li>Production of novel Ibogaine analogs for SAR work Production of gram-level of selected compounds for dose range finding toxicology studies</li> </ul>
		<ul style="list-style-type: none"> <li>Production of BMB-202 material for GLP-tox Backup program for 5HT2A selective lead BMB-202 ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Completed</li> </ul>
		<ul style="list-style-type: none"> <li>Pre-formulation and salt screen studies – BMB-202</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
		<ul style="list-style-type: none"> <li>Investigational Non-hallucinogenic 5-HT<sub>2A</sub> program</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Pharmacology &amp; Toxicology:</b>			
	Pharmacodynamics	<ul style="list-style-type: none"> <li>BRET assays, 5-HT receptors profiling</li> <li>Head Twitch Assays</li> <li>SmartCube assay</li> <li>Identification of potential preclinical drug candidate In vivo studies in rat models of depression</li> </ul>	<ul style="list-style-type: none"> <li>BRET assays, profiling in 5-HTroduct receptors profiling</li> <li>Head Twitch Assays</li> <li>Forced Swim Test in rat studies</li> <li>Locomotor activity in rat studies</li> <li>2A/2C drug candidates with improved profiles.</li> <li>IN delivery PD optimization of selected compounds</li> </ul>
	Safety Pharmacology	<ul style="list-style-type: none"> <li>In Vitro Safety Pharmacology Profiling at Eurofins for the lead and backup compounds</li> </ul>	<ul style="list-style-type: none"> <li>Completed</li> </ul>

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		<ul style="list-style-type: none"> <li>• <i>In-vitro</i> Safety Pharmacology Profiling at Eurofins – other candidates and follow-up screens</li> </ul>	
	ADME/PK	<ul style="list-style-type: none"> <li>• In vitro ADME assays ADMEPK package for the lead and backup compounds</li> <li>• <i>In-vitro/in-vivo</i> and cross-species ADMEPK, human PK prediction for selected compounds</li> <li>• Modelling of ADMEPK properties <i>in silico</i></li> <li>• Profiling ongoing for the backup compounds <i>In-vitro/in-vivo</i> and cross-species ADMEPK, human PK prediction for selected compounds; IN delivery PK</li> </ul>	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
	Toxicology	<ul style="list-style-type: none"> <li>• N/ADRF studies – BMB-202 (rats and dogs)</li> </ul>	<ul style="list-style-type: none"> <li>• DRF studies completed, 28-day toxicology studies planned Formulation /Dosage level planned</li> </ul>
<b>In vivo &amp; In vitro Efficacy; Other MoA-Related Studies</b>			
		<ul style="list-style-type: none"> <li>• <i>In vivo</i> studies in rat models of depression Animal model strategy refined</li> <li>• Analysis of Head Twitch data (time-course)</li> <li>• Neuroplasticity in vitro and in-vivo studies</li> </ul>	<ul style="list-style-type: none"> <li>• Other animal models of depression assessments</li> <li>• Pilot study to assess neuroplasticity effects of BMB compounds</li> <li>• Assessment of lead candidate in pain models ongoing</li> </ul>

**LIQUIDITY AND CAPITAL RESOURCES**

To date, the Company’s R&D activities and other operations have been financed through the issuance of equity securities. The Company reviews its working capital position and expected position to manage its liquidity, ensuring that the Company has sufficient cash to meet operational needs.

The Company will require additional capital to fund R&D activities and any significant expansion of operations. Potential sources of capital could include dilutive equity financing, non-dilutive government funding opportunities, new strategic partnership/licensing agreements to fund some or all costs of development, and or debt issuances. There can be no assurance that the Company will be able to obtain the capital sufficient to meet any or all of the Company’s needs. The availability of equity or debt financing will be affected by, among other things, the results of our R&D, our ability to obtain regulatory approvals, the market acceptance of our development milestones, the state of the capital markets generally, strategic alliance agreements and other relevant commercial considerations. In addition, if the Company raises additional funds by issuing equity securities, the existing security holders will likely experience dilution, and any incurrence of indebtedness would result in increased debt service obligations and could require us to agree to operating and financial covenants that would restrict the Company’s operations. Any failure on the Company’s part to raise additional funds on terms favorable or at all may require the Company to significantly change or curtail the current or planned operations in order to conserve cash until such time, if ever, that sufficient proceeds from operations are generated, and could result in the Company not taking advantage of business opportunities, in the termination or delay of clinical trials for our products or in curtailment of the product development programs designed.

At December 31, 2023, the Company had working capital of \$5,984,598, including cash of \$6,761,647. On December 22, 2023, the Company issued 661,765 Units of the Company at a price per unit of \$1.36 for aggregate gross proceeds of

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\$900,000. Each Unit is comprised of one common share and one common share purchase warrant of the Company. Each Warrant is exercisable to acquire one common share of the Company at an exercise price of \$1.70 per share until December 22, 2028.

On July 14, 2023, the Directors of the Company approved the consolidation of the Company's issued and outstanding common shares on a 5:1 basis. All common shares, stock options and warrant references in these consolidated financial statements reflect the effect of the share consolidation.

On December 13, 2023, 30,000 RSUs were exercised and \$232,500 was reclassified from reserves to share capital upon the exercise.

The Company's current and expected cash resources are sufficient to satisfy working capital requirements of running the operations for the following twelve months; however, the Company has not realized a source of revenue therefore, Management will continue to seek new sources of capital to maintain its operations.

The financial statements of the Company have been prepared in accordance with IFRS applicable to a going concern, which assumes that the Company will be able to realize its assets and discharge its liabilities in the normal course of business for the foreseeable future.

Management believes that its expected cash resources will be sufficient to fund operations for the next twelve months of research and development while maintaining adequate working capital. The Company continually reassesses the adequacy of its cash resources, evaluating existing research projects and/or potential collaboration opportunities, to determine when and how much additional funding is required.

**PREVIOUS FINANCINGS – USE OF PROCEEDS VARIATIONS**

<b>Date of Issuance/Sale</b>	<b>Security Type</b>	<b>Number of Securities</b>	<b>Issue/Sale Price</b>
September 30, 2020	Common Shares	124,788 <sup>(1)</sup>	\$6.25
November 2, 2020	Common Shares	325,828 <sup>(1)</sup>	\$6.25
February 3, 2021	Common Shares	3,200 <sup>(1)</sup>	\$6.25
March 17, 2021	Common Shares	683,977 <sup>(2)</sup>	\$37.85
August 30, 2022	Common shares	571,600 <sup>(3)</sup>	\$7.00
December 2, 2022	Common Shares	194,800 <sup>(4)</sup>	\$6.25
December 2, 2022	Pre-funded warrants	133,200 <sup>(4)</sup>	\$6.245
December 22, 2023	Common Shares	661,765 <sup>(5)</sup>	\$1.36

**Notes:**

- (1) The use of these financing proceeds as described in the November 18, 2020 Preliminary Prospectus were for research and development activities, as well as working capital and general corporate purposes; there were no variances from this disclosure.
- (2) The use of these financing proceeds as described in the February 23, 2021 news release were for research and development activities, as well as working capital and general corporate purposes; there were no variances from this disclosure.
- (3) The use of these financing proceeds as described in the August 22, 2022 news release were for working capital and general corporate purposes; there were no variances from this disclosure.
- (4) The use of these financing proceeds as described in the November 28, 2022 news release were for research and development activities, as well as working capital and general corporate purposes; there were no variances from this disclosure.



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- (5) The use of these financing proceeds as described in the December 6, 2023 news release were for research and development activities, as well as working capital and general corporate purposes; there were no variances from this disclosure.

**OUTSTANDING SHARE DATA**

The Company's share capital as of date of this MD&A is:

	<b>Balance</b>
Shares issued and outstanding	4,463,837
Share purchase warrants	1,709,285
Pre-funded warrants	133,200
Restricted share units	192,000
Stock options	212,161

**RESULTS OF OPERATIONS AND FIRST QUARTER DISCUSSION****For the Three Months Ended December 31, 2023****Overall Analysis**

The Company incurred a net loss of \$1,684,267 for the three months ended December 31, 2023, respectively, compared to a net loss of \$2,335,428 for the comparable period. The Company decreased its overall research and development activity for the period due to timing of various program starts and completions.

**Research and Development Expenditure Analysis**

The following table summarizes the material components of research and development expenditure across its drug portfolio:

<b>Drug Portfolio</b>	<b>For the three months ended</b>	
	<b>December 31, 2023</b>	<b>December 31, 2022</b>
	\$	\$
5-HT <sub>2A</sub>	<b>401,924</b>	301,852
5-HT <sub>2C</sub>	<b>440,114</b>	879,847
5-HT <sub>2C/A</sub>	<b>383,486</b>	277,979
<b>TOTAL</b>	<b>1,225,524</b>	1,459,678

During the three months ended December 31, 2023, the Company decreased its expenditures across the three drugs in its portfolio due to timing differences in program starts.

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(All amounts expressed in Canadian dollars, unless otherwise stated)

**SELECTED QUARTERLY INFORMATION FOR MOST RECENT COMPLETED QUARTERS**

	December 31, 2023	September 30, 2023	June 30, 2023	March 31, 2023
	\$	\$	\$	\$
Net profit (loss)	(1,684,267)	(1,433,018)	(1,458,301)	(2,050,499)
Basic profit (loss) per share	(0.44)	(0.38)	(0.39)	(0.55)
Diluted profit (loss) per share	(0.44)	(0.38)	(0.39)	(0.55)

	December 31, 2022	September 30, 2022	June 30, 2022	March 31, 2022
	\$	\$	\$	\$
Net profit (loss)	(2,335,428)	(2,961,015)	(2,658,378)	(4,487,503)
Basic profit (loss) per share	(0.65)	(1.05)	(1.10)	(1.90)
Diluted profit (loss) per share	(0.65)	(1.05)	(1.10)	(1.90)

For the first quarter of the 2024 fiscal year, the Company reduced overall net loss through reduced research and development costs. For the four quarters in the 2023 fiscal year, the Company reduced overall expenditures primarily driven by a decrease in research and developmental spending. Between the four reporting quarters comprising the 2022 fiscal year end, the Company ramped up its research and development activity with supporting overhead costs utilizing financing proceeds as planned. The trending increase in net loss driven by increased research and development activity and overhead costs should be expected as long as the Company has adequate working capital resources.

**FINANCIAL INSTRUMENTS AND RISK MANAGEMENT**

The following table summarizes the carrying value of financial assets and liabilities:

	December 31, 2023	September 30, 2023
<b>FVTPL</b>	\$	\$
Cash	6,675,397	6,661,736
Guaranteed investment certificate	86,250	86,250
Cash and cash equivalents	6,761,647	6,747,986
<b>Amortized cost</b>		
Accounts payable and accrued liabilities	799,597	207,307

## **BRIGHT MINDS BIOSCIENCES INC.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

(All amounts expressed in Canadian dollars, unless otherwise stated)

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#### **Fair value measurement**

Financial assets and liabilities that are recognized on the statement of financial position at fair value can be classified in a hierarchy that is based on the significance of the inputs used in making the measurements.

##### The levels in the hierarchy are:

Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 - inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices); and

Level 3 - inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The Company's cash and cash equivalents is classified as Level 1, whereas accounts payable and accrued liabilities are classified as Level 2. As at December 31, 2023, the Company believes that the carrying values of cash and cash equivalents and accounts payable and accrued liabilities approximate their fair values because of their nature and relatively short maturity dates or durations.

#### **Financial risk management**

The Company is exposed in varying degrees to a variety of financial instrument related risks. The Board of Directors approves and monitors the risk management processes. The type of risk exposure and the way in which such exposure is managed is provided as follows:

##### Credit risk

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss. The Company's primary exposure to credit risk is on its cash and cash equivalents balance. As at December 31, 2023, the Company had cash and cash equivalents of \$6,761,647 which was held with major banks in Canada, United States and Australia. Because deposits are with three banks, there is a concentration of credit risk. This risk is managed by using major banks that are high credit quality financial institutions as determined by rating agencies. The maximum exposure to credit risk is the carrying amount of the Company's financial instruments. The credit risk is assessed as low.

##### Foreign exchange risk

Foreign currency risk is the risk that the fair values of future cash flows of a financial instrument will fluctuate because they are denominated in currencies that differ from the respective functional currency. As at December 31, 2023, the Company had the following foreign currency balances – cash (US\$573,703 and AU\$602,203), receivables (AU\$6,381), prepaids (US\$11,145 and AU\$95) and accounts payable and accrued liabilities (US\$61,046, €525, and AU\$666,959). A 10% fluctuation in the US\$ and AU\$ against the Canadian dollar would have an impact of approximately \$64,000 on comprehensive loss.

##### Liquidity risk

Liquidity risk arises through the excess of financial obligations over available financial assets due at any point in time. The Company's objective in managing liquidity risk is to maintain sufficient readily available reserves in order to meet its liquidity requirements at any point in time. The Company's main source of funding has been the issuance of equity securities for cash, primarily through private placements. The Company's access to financing is always uncertain. There can be no assurance of continued access to significant equity funding. As at December 31, 2023, the Company had cash and cash equivalents of \$6,761,647 to cover current liabilities of \$799,597.

##### Capital management

Management's objective is to manage its capital to ensure that there are adequate capital resources to safeguard the Company's ability to continue as a going concern through the optimization of its capital structure. The capital structure consists of share capital and working capital. In order to achieve this objective, management makes adjustments to it in light

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of changes in economic conditions and risk characteristics of the underlying assets. To maintain or adjust the capital structure, management may invest its excess cash in interest bearing accounts of Canadian chartered banks and/or raise additional funds externally as needed. The Company is not subject to externally imposed capital requirements. The Company's management of capital did not change during the period ended December 31, 2023.

## RELATED PARTY TRANSACTIONS

### *Compensation of Key Management Personnel*

Key management personnel are those persons that have authority and responsibility for planning, directing and controlling the activities of the Company, directly and indirectly, and by definition include the directors of the Company. All compensation is measured at fair market value.

Included in accounts payable and accrued liabilities as at December 31, 2023 was \$57,187 (September 30, 2023 - \$51,480) owing to the directors of the Company and the companies controlled by key management personnel.

The following table summarizes expenses related to key management personnel:

	<b>For the three months ended:</b>	
	<b>December 31, 2023</b>	December 31, 2022
	\$	\$
Professional fees	<b>30,000</b>	30,000
Research and development	<b>132,377</b>	190,200
Share-based compensation included in directors' compensation	<b>113,230</b>	523,964
Share-based compensation included in research and development	<b>45,832</b>	(127,256)
	<b>321,439</b>	616,908

Professional fees include amounts paid or accrued to a private Company owned by Ryan Cheung, the Chief Financial Officer of the Company. Research and development comprise fees paid or accrued to Dr. Revati Shreeniwas and Dr. Alan Kozikowski (former directors and December 31, 2022 only), as well as Dr. Mark Smith and Jan Torlief Pedersen both of which are director and/or officers of the Company. Share-based compensation includes the portion stock-based compensation attributed to various directors and officers of the Company as at the date of the option grant.

## CRITICAL ACCOUNTING ESTIMATES

### **Critical accounting estimates**

The preparation of the financial statements in conformity with IFRS requires management to make estimates, judgments and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Certain of the Company's accounting policies and disclosures require key assumptions concerning the future and other estimates that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities or disclosures within the next fiscal year. Where applicable, further information about the assumptions made is disclosed in the notes specific to that asset or liability. The critical accounting estimates and judgments set out below have been applied consistently to all periods presented in these financial statements.

## **BRIGHT MINDS BIOSCIENCES INC.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

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## **CHANGES IN ACCOUNTING POLICIES**

### **New standards and interpretations not yet adopted**

A number of new standards, amendments to standards and interpretations are not yet effective for the period June 30, 2023 and have not been applied in preparing these financial statements. The following new standards have not been adopted which may impact the Company in future:

#### IAS 1 – Presentation of Financial Statements

An amendment to IAS 1 clarifies the criterion for classifying a liability as non-current relating to the right to defer settlement of a liability for at least 12 months after the reporting period.

IAS 1 has amended the definition of material to “information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.” The previous definition of material from IAS1 was “omissions or misstatements of items are material if they could, individually or collectively, influence the economic decisions that users make on the basis of the financial statements. Materiality depends on the size and nature of the omission or misstatement judged in the surrounding circumstances. The size or nature of the item, or a combination of both, could be the determining factor.”

#### IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors

IAS 8 amended the definition of material reflect the changes outlined above under IAS 1.

#### IAS 12 and IFRIC 23 – Income Taxes

IAS 12 currently provides guidance on current and deferred tax assets and liabilities however uncertainty may exist on how tax law applies to certain transactions. IFRIC 23 provides guidance on how to address uncertainty related to tax treatments.

## **RISK AND UNCERTAINTIES**

### ***Limited Operating History***

The Company has a very limited history of operations and is considered a start-up company. As such, the Company is subject to many risks common to such enterprises, including under-capitalization, cash shortages, limitations with respect to personnel, financial and other resources and lack of revenues. There is no assurance that the Company will be successful in achieving a return on shareholders' investment and the likelihood of the Company's success must be considered in light of its early stage of operations.

### ***The Company's actual financial position and results of operations may differ materially from the expectations of the Company's management.***

The Company's actual financial position and results of operations may differ materially from management's expectations. The Company has experienced some changes in its operating plans and certain delays in its plans. As a result, the Company's revenue, net income and cash flow may differ materially from the Company's projected revenue, net income and cash flow. The process for estimating the Company's revenue, net income and cash flow requires the use of judgment in determining the appropriate assumptions and estimates. These estimates and assumptions may be revised as additional information becomes available and as additional analyses are performed. In addition, the assumptions used in planning may not prove to be accurate, and other factors may affect the Company's financial condition or results of operations.

### ***The Company may not be successful in its efforts to identify, license or discover additional product candidates.***

Although a substantial amount of the Company's effort will focus on the continued research and pre-clinical testing, potential approval and commercialization of its existing product candidates, the success of its business also depends in part upon its ability to identify, license or discover additional product candidates. The Company's research programs or licensing

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efforts may fail to yield additional product candidates for clinical development for a number of reasons, including but not limited to the following:

- the Company's research or business development methodology or search criteria and process may be unsuccessful in identifying potential product candidates;
- the Company may not be able or willing to assemble sufficient resources to acquire or discover additional product candidates;
- the Company's product candidates may not succeed in pre-clinical or clinical testing;
- the Company's product candidates may be shown to have harmful side effects or may have other characteristics that may make the products unmarketable or unlikely to receive marketing approval;
- competitors may develop alternatives that render the Company's product candidates obsolete or less attractive;
- product candidates the Company develops may be covered by third parties' patents or other exclusive rights;
- the market for a product candidate may change during the Company's program so that such a product may become unreasonable to continue to develop;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and
- a product candidate may not be accepted as safe and effective by patients, the medical community or third-party payors.

If any of these events occurs, the Company may be forced to abandon its development efforts to identify, license or discover additional product candidates, which would have a material adverse effect on its business and could potentially cause the Company to cease operations. Research programs to identify new product candidates require substantial technical, financial and human resources. The Company may focus its efforts and resources on potential programs or product candidates that ultimately prove to be unsuccessful.

#### ***There is no assurance that the Company will turn a profit or generate immediate revenues***

There is no assurance as to whether the Company will be profitable, earn revenues, or pay dividends. The Company has incurred and anticipates that it will continue to incur substantial expenses relating to the development and initial operations of its business. The payment and amount of any future dividends will depend upon, among other things, the Company's results of operations, cash flow, financial condition, and operating and capital requirements. There is no assurance that future dividends will be paid, and, if dividends are paid, there is no assurance with respect to the amount of any such dividends.

#### ***The Company as a going concern***

The continued operation of the Company as a going concern is dependent upon the Company's ability to generate positive cash flows and/or obtain additional financing sufficient to fund continuing activities and acquisitions. While the Company continues to review its operations in order to identify strategies and tactics to increase revenue streams and financing opportunities, there is no assurance that the Company will be successful in such efforts; if the Company is not successful, it may be required to significantly reduce or limit operations, or no longer operate as a going concern. It is also possible that operating expenses could increase in order to grow the business. If the Company does not significantly increase its revenue to meet these increased operating expenses and/or obtain financing until its revenue meets these operating expenses, its business, financial condition and operating results could be materially adversely affected. The Company cannot be sure when or if it will ever achieve profitability and, if it does, it may not be able to sustain or increase that profitability.

#### ***The Company's intellectual property and licences thereto***

The Company's success will depend in part on its ability to protect and maintain its intellectual property rights and its licenses. No assurance can be given that the license or rights used by the Company will not be challenged, invalidated, infringed or circumvented, nor that the rights granted thereunder will provide competitive advantages to the Company. It is not clear whether the pending patent applications will result in the issuance of patents. There is no assurance that the Company will be able to enter into licensing arrangements, develop or obtain alternative technology in respect of patents

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issued to third parties that incidentally cover its production processes. Moreover, the Company could potentially incur substantial legal costs in defending legal actions which allege patent infringement or by instituting patent infringement suits against others. The Company's commercial success also depends on the Company not infringing patents or proprietary rights of others and not breaching the exclusive license granted to the Company. There can be no assurance that the Company will be able to maintain such licenses that it may require to conduct its business or that such licences have been obtained at a reasonable cost. Furthermore, there can be no assurance that the Company will be able to remain in compliance with its licenses. Consequently, there may be a risk that such licenses may be withdrawn with no compensation or penalties to the Company.

#### ***The Company not achieving timelines for project development set out in this Prospectus***

The Company's business is dependent on a number of key inputs and their related costs including raw materials and supplies related to its operations, as well as electricity, water and other utilities. Any significant interruption or negative change in the availability or economics of the supply chain for key inputs could materially impact the business, financial condition operating results, and timelines for project development of the Company. Any inability to secure required supplies and services or to do so on appropriate terms could have a materially adverse impact on the business, financial condition, operating results, and timelines for project development of the Company.

#### ***The Company faces product liability exposure, which, if not covered by insurance, could result in significant financial liability.***

The risk of product liability is inherent in the research, development, manufacturing, marketing and use of pharmaceutical products. Product candidates and products that we may commercially market in the future may cause, or may appear to have caused, injury or dangerous drug reactions, and expose the Company to product liability claims. These claims might be made by patients who use the product, healthcare providers, pharmaceutical companies, corporate collaborators or others selling such products. If the Company's product candidates during clinical trials were to cause adverse side effects, the Company may be exposed to substantial liabilities. Regardless of the merits or eventual outcome, product liability claims or other claims related to the Company's product candidates may result in:

- decreased demand for our products due to negative public perception;
- injury to our reputation;
- withdrawal of clinical trial participants or difficulties in recruiting new trial participants;
- initiation of investigations by regulators;
- costs to defend or settle related litigation;
- a diversion of management's time and resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenues from product sales; and
- the inability to commercialize any of product candidates, if approved.

The Company intends to obtain clinical trial insurance once a clinical trial is initiated. However, the insurance coverage may not be sufficient to reimburse the Company for any expenses or losses it may suffer. Insurance coverage is becoming increasingly expensive, and, in the future, the Company, or any of its collaborators, may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts or at all to protect against losses due to liability. Even if the Company's agreements with any future collaborators entitle it to indemnification against product liability losses, such indemnification may not be available or adequate should any claim arise. The Company's inability to obtain sufficient product liability insurance at an acceptable cost to protect against product liability claims could prevent or inhibit the commercialization of its product candidates. If a successful product liability claim or series of claims is brought against the Company for uninsured liabilities or in excess of insured liabilities, its assets may not be sufficient to cover such claims and its business operations could be impaired.

Should any of the events described above occur, this could have a material adverse effect on the Company's business, financial condition and results of operations.

#### ***The Company has international operations, which subject us to risks inherent with operations outside of Canada.***

## **BRIGHT MINDS BIOSCIENCES INC.**

### **MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

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The Company has international operations and may seek to obtain market approvals in foreign markets that it deems could generate significant opportunities. However, even with the cooperation of a commercialization partner, conducting drug development in foreign countries involves inherent risks, including, but not limited to: difficulties in staffing, funding and managing foreign operations; different and unexpected changes in regulatory requirements; export restrictions; tariffs and other trade barriers; different reimbursement systems; economic weaknesses or political instability in particular foreign economies and markets; compliance with tax, employment, immigration and labour laws for employees living or travelling abroad; supply chain and raw materials management; difficulties in protecting, acquiring, enforcing and litigating intellectual property rights; fluctuations in currency exchange rates; and potentially adverse tax consequences.

If the Company were to experience any of the difficulties listed above, or any other difficulties, its international development activities and its overall financial condition may suffer and cause it to reduce or discontinue our international development and market approval efforts.

#### ***Exchange rate fluctuations between the U.S. dollar and the Canadian dollar may negatively affect the Company's earnings and cash flows.***

The Company's functional currency is the Canadian dollar. The Company may incur expenses Canadian Dollars and U.S. dollars. As a result, we are exposed to the risks that the Canadian dollar may devalue relative to the U.S. Dollar, or, if the Canadian dollar appreciates relative to the U.S. Dollar, that the inflation rate in Canada may exceed such rate of devaluation of the Canadian dollar, or that the timing of such devaluation may lag behind inflation in Canada. The Company cannot predict any future trends in the rate of inflation in Canada or the rate of devaluation, if any, of the Canadian dollar against the U.S. Dollar.

#### ***If patent laws or the interpretation of patent laws change, the Company's competitors may be able to develop and commercialize our discoveries.***

Important legal issues remain to be resolved as to the extent and scope of available patent protection for biopharmaceutical products and processes in Canada and other important markets outside Canada, such as Europe or the United States. As such, litigation or administrative proceedings may be necessary to determine the validity, scope and ownership of certain of our and others' proprietary rights. Any such litigation or proceeding may result in a significant commitment of resources in the future and could force the Company to do one or more of the following: cease selling or using any of its future products that incorporate a challenged intellectual property, which would adversely affect its revenue; obtain a license or other rights from the holder of the intellectual property right alleged to have been infringed or otherwise violated, which license may not be available on reasonable terms, if at all; and redesign its future products to avoid infringing or violating the intellectual property rights of third parties, which may be time-consuming or impossible to do. In addition, changes in patent laws in Canada and other countries may result in allowing others to use its discoveries or develop and commercialize our products. The Company cannot provide assurance that the patents it obtains will afford it significant commercial protection.

#### ***The Company may not be able to enforce its intellectual property rights throughout the world. This risk is exacerbated because it expects that one or more of its product candidates will be manufactured and used in a number of foreign countries.***

The laws of foreign countries may not protect intellectual property rights to the same extent as the laws of Canada. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. This risk is exacerbated for the Company because it expects that future product candidates could be manufactured, and used in a number of foreign countries.

The legal systems of some countries, particularly developing countries, do not favor the enforcement of patents and other intellectual property protection, especially those relating to life sciences. This could make it difficult to stop the infringement or other misappropriation of the Company's intellectual property rights. For example, several foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, some countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents and trade secrets may provide limited or no benefit.



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Most jurisdictions in which the Company intends to apply for patents have patent protection laws similar to those of Canada, but some of them do not. For example, the Company may do business in the future in countries that may not provide the same or similar protection as that provided in Canada. Additionally, due to uncertainty in patent protection law, the Company has not filed applications in many countries where significant markets exist.

Proceedings to enforce patent rights in foreign jurisdictions could result in substantial costs and divert the Company's efforts and attention from other aspects of its business. Accordingly, efforts to protect intellectual property rights in such countries may be inadequate. In addition, changes in the law and legal decisions by courts in Canada, the U.S., and foreign countries may affect our ability to obtain adequate protection for the Company's technology and the enforcement of its intellectual property.

#### ***The lack of product for commercialization***

If the Company cannot successfully develop, manufacture and distribute its products, or if the Company experiences difficulties in the development process, such as capacity constraints, quality control problems or other disruptions, the Company may not be able to develop market-ready commercial products at acceptable costs, which would adversely affect the Company's ability to effectively enter the market. A failure by the Company to achieve a low-cost structure through economies of scale or improvements in cultivation and manufacturing processes would have a material adverse effect on the Company's commercialization plans and the Company's business, prospects, results of operations and financial condition.

#### ***The lack of experience of the Company/Management in marketing, selling, and distribution products***

Our management's lack of experience in marketing, selling, and distributing our products could lead to poor decision-making, which could result in cost-overruns and/or the inability to produce the desired products. Although management of the Company intends to hire experienced and qualified staff, this inexperience could also result in the company's inability to consummate revenue contracts or any contracts at all. Any combination of the aforementioned may result in the failure of the Company and a loss of your investment.

#### ***The size of the Company's target market is difficult to quantify, and investors will be reliant on their own estimates on the accuracy of market data.***

Because the industry in which the Company operates is in a nascent stage with uncertain boundaries, there is a lack of information about comparable companies available for potential investors to review in deciding whether to invest in the Company and, few, if any, established companies whose business model the Company can follow or upon whose success the Company can build. Accordingly, investors will have to rely on their own estimates in deciding about whether to invest in the Company. There can be no assurance that the Company's estimates are accurate or that the market size is sufficiently large for its business to grow as projected, which may negatively impact its financial results.

#### ***The Company continues to sell shares for cash to fund operations, capital expansion, mergers and acquisitions that will dilute the current shareholders.***

There is no guarantee that the Company will be able to achieve its business objectives. The continued development of the Company will require additional financing. The failure to raise such capital could result in the delay or indefinite postponement of current business objectives or the Company going out of business. There can be no assurance that additional capital or other types of financing will be available if needed or that, if available, the terms of such financing will be favourable to the Company.

If additional funds are raised through issuances of equity or convertible debt securities, existing shareholders could suffer significant dilution, and any new equity securities issued could have rights, preferences and privileges superior to those of holders of Common Shares. The Company's articles permit the issuance of an unlimited number of Common Shares, and shareholders will have no pre-emptive rights in connection with such further issuance. The directors of the Company have discretion to determine the price and the terms of issue of further issuances. In addition, from time to time, the Company may enter into transactions to acquire assets or the shares of other companies. These transactions may be financed wholly or partially with debt, which may temporarily increase the Company's debt levels above industry standards. Any debt

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financing secured in the future could involve restrictive covenants relating to capital raising activities and other financial and operational matters, which may make it more difficult for the Company to obtain additional capital and to pursue business opportunities, including potential acquisitions. The Company may require additional financing to fund its operations to the point where it is generating positive cash flows. Negative cash flow may restrict the Company's ability to pursue its business objectives.

#### ***The Company's officers and directors may be engaged in a range of business activities resulting in conflicts of interest.***

The Company may be subject to various potential conflicts of interest because some of its officers and directors may be engaged in a range of business activities. In addition, the Company's executive officers and directors may devote time to their outside business interests, so long as such activities do not materially or adversely interfere with their duties to the Company. In some cases, the Company's executive officers and directors may have fiduciary obligations associated with these business interests that interfere with their ability to devote time to the Company's business and affairs and that could adversely affect the Company's operations. These business interests could require significant time and attention of the Company's executive officers and directors.

In addition, the Company may become involved in other transactions which conflict with the interests of its directors and officers who may from time-to-time deal with persons, firms, institutions or companies with which the Company may be dealing, or which may be seeking investments similar to those desired by it. The interests of these persons could conflict with those of the Company. In addition, from time to time, these persons may be competing with the Company for available investment opportunities. Conflicts of interest, if any, will be subject to the procedures and remedies provided under applicable laws. In particular, if such a conflict of interest arises at a meeting of the Company's directors, a director who has such a conflict will abstain from voting for or against the approval of such participation or such terms. In accordance with applicable laws, the directors of the Company are required to act honestly, in good faith and in the best interests of the Company.

#### ***In certain circumstances, the Company's reputation could be damaged.***

Damage to the Company's reputation can be the result of the actual or perceived occurrence of any number of events, and could include any negative publicity, whether true or not. The increased usage of social media and other web-based tools used to generate, publish and discuss user-generated content and to connect with other users has made it increasingly easier for individuals and groups to communicate and share opinions and views regarding the Company and its activities, whether true or not. Although the Company believes that it operates in a manner that is respectful to all stakeholders and that it takes care in protecting its image and reputation, the Company does not ultimately have direct control over how it is perceived by others. Reputation loss may result in decreased investor confidence, increased challenges in developing and maintaining community relations and an impediment to the Company's overall ability to advance its projects, thereby having a material adverse impact on financial performance, financial condition, cash flows and growth prospects.

#### ***Negative Operating Cash Flow***

The Company's business has incurred losses since its inception. Although the Company expects to become profitable, there is no guarantee that will happen, and the Company may never become profitable. The Company currently has a negative operating cash flow and may continue to have a negative operating cash flow for the foreseeable future. To date, the Company has not generated any revenues and a large portion of the Company's expenses are fixed, including expenses related to facilities, equipment, contractual commitments and personnel. As a result, the Company expects for its net losses from operations to improve. The Company's ability to generate additional revenues and potential to become profitable will depend largely on its ability to manufacture and market its products and services. There can be no assurance that any such events will occur or that the Company will ever become profitable. Even if the Company does achieve profitability, the Company cannot predict the level of such profitability. If the Company sustains losses over an extended period of time, the Company may be unable to continue its business.

#### ***Need for additional financing***

The Company believes that it will have sufficient capital to operate its business for at least 12 months following Listing. However, it is possible that costs associated with the operation of the Company's business will exceed its projections

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### **MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

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depending on the timing of future operating and capital expenses. Assuming the Company's existing funds sustain its operations for this period, the Company believes that it may thereafter require additional capital for additional product development, sales and marketing operations, other operating expenses and for general corporate purposes to fund growth in the Company's markets. The Company does not know how much additional funding it may require. The Company may therefore be required to seek other sources of financing in the future, which sources (assuming it is able to locate such alternative sources of financing) may be on terms less favorable to the Company than those in the Special Warrant Offering. Any additional equity financing may be dilutive to shareholders, and debt financing, if available, may involve restrictive covenants. If additional funds are raised through the issuance of equity securities, the percentage ownership of the shareholders of the Company will be reduced, shareholders may experience additional dilution in net book value per share, or such equity securities may have rights, preferences or privileges senior to those of the holders of the Common Shares. If adequate funds are not available on acceptable terms, the Company may be unable to develop or enhance its products and services, take advantage of future opportunities or respond to competitive pressures, any of which could have a material adverse effect on its business, financial condition and operating results, or the Company may be forced to cease operations.

#### ***Uncertainty of Use of Proceeds***

Although the Company has set out its intended use of proceeds from this Offering, these intended uses are estimates only and may be subject to change. While management does not contemplate any material variation, management does retain broad discretion in the application of such proceeds. The failure by the Company to apply these funds effectively could have a material adverse effect on the Company's business, including the Company's ability to achieve its stated business objectives.

#### ***If the Company has a material weakness in its internal controls over financial reporting, investors could lose confidence in the reliability of its financial statements, which could result in a decrease in the value of its securities.***

One or more material weaknesses in the Company's internal controls over financial reporting could occur or be identified in the future. In addition, because of inherent limitations, the Company's internal controls over financial reporting may not prevent or detect misstatements, and any projections of any evaluation of effectiveness of internal controls to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the Company's policies or procedures may deteriorate. If the Company fails to maintain the adequacy of its internal controls, including any failure or difficulty in implementing required new or improved controls, its business and results of operations could be harmed, the Company may not be able to provide reasonable assurance as to its financial results or meet its reporting obligations and there could be a material adverse effect on the price of its securities.

#### ***Difficulties with Forecasts***

The Company must rely largely on its own market research to forecast sales as detailed forecasts are not generally obtainable from other sources at this early stage of the pharmaceutical industry in Canada. A failure in the demand for its products and services to materialize as a result of competition, technological change or other factors could have a material adverse effect on the business, results of operations and financial condition of the Company.

#### ***COVID-19 may materially and adversely affect the Company's business and financial results.***

The Company's business could be materially and adversely affected by health epidemics in regions where the Company conducts research and development activities.

In December 2019, a novel strain of COVID-19 was reported in China. Since then, COVID-19 has spread globally. On March 11, 2020, the World Health Organization (WHO) declared the outbreak of COVID-19 as a "pandemic", or a worldwide spread of a new disease. Many countries around the world, including Canada, the United States and most countries in Europe, have imposed quarantines and restrictions on travel and mass gatherings to slow the spread of the virus, and have closed non-essential businesses.

The COVID-19 pandemic and any other health epidemics have the potential to cause significant disruption in the operations of the laboratories upon whom the Company relies, including laboratories situated in various parts of the United States and

**BRIGHT MINDS BIOSCIENCES INC.****MANAGEMENT'S DISCUSSION AND ANALYSIS FOR THE FIRST QUARTER ENDED DECEMBER 31, 2023**

(All amounts expressed in Canadian dollars, unless otherwise stated)

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Europe. The Company is reliant on the continued operations of such laboratories. The regulations imposed by governments in response to the COVID-19 pandemic may cause laboratories to operate at limited occupancy rates, which may slow the rate at which research and development activities can be conducted. The Company may not have control over the protocols adopted in response to the COVID-19 pandemic by such laboratories in response to the regulations imposed by the governments in the regions in which they operate. The effects of such protocols and/or regulations may negatively impact productivity, disrupt our business and delay our research and development timelines, as well as potentially impact our financial condition and result of operations. The magnitude of these potential effects is uncertain and will depend, in part, on the length and severity of the COVID-19 pandemic and the restrictions imposed by governments in response.

**MANAGEMENT'S RESPONSIBILITY FOR THE FINANCIAL STATEMENTS**

The information provided in this report is the responsibility of management. In the preparation of these statements, estimates are sometimes necessary to make a determination of future values for certain assets or liabilities. Management believes such estimates have been based on careful judgments and have been properly reflected in the accompanying financial statements.

**ADDITIONAL INFORMATION**

Additional information relating to the Company, is available on the Canadian System for Electronic Document Analysis and Retrieval ("SEDAR") website at [www.sedar.com](http://www.sedar.com).