



PHARMADRUG INC.

MANAGEMENT'S DISCUSSION AND ANALYSIS
FOR THE THREE MONTHS ENDED MARCH 31, 2023

Pharmadrug Inc.

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For the Three Months ended March 31, 2023

The following Management's Discussion and Analysis ("MD&A") is current to May 25, 2023, and constitutes management's assessment of the factors that affected the financial condition and results of operations of Pharmadrug Inc. ("Pharmadrug", "We" or the "Company") for the three months ended March 31, 2023. This MD&A was written to comply with the requirements of National Instrument 51-102 – Continuous Disclosure Obligations. It is supplemental to and should be read in conjunction with the Company's unaudited condensed interim consolidated financial statements and related notes for the three months ended March 31, 2023 and 2022 (the "Q1 2023 Financial Statements"), and its audited consolidated financial statements and related notes for the years ended December 31, 2022 and 2021 (the "2022 Financial Statements"), prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. In the opinion of management, all adjustments considered necessary for a fair presentation have been included. All figures in this MD&A are reported in Canadian dollars ("C\$") unless otherwise stated.

This MD&A contains forward-looking statements that are not historical in nature and involves risks and uncertainties. See "Cautionary Note Regarding Forward-Looking Statements" below.

Business Overview

Pharmadrug is a specialty pharmaceutical company focused on the research, development and commercialization of controlled-substances and natural medicines such as psychedelics, and naturally derived approved drugs. The Company owns 100% of Sairiyo Therapeutics Inc. ("Sairiyo"), a biotech Company that specializes in researching and reformulating established natural medicines with a goal of bringing them through clinical trials and the associated regulatory approval process in the United States (the "U.S.") and Europe. The Company also owns Super Smart, an entity building a vertically integrated retail business with the goal to elevate the use of functional mushrooms as natural based medicines.

The address of the Company's registered office is 77 King Street West, Suite 2905, Toronto, Ontario, M5K 1H1, Canada. The Company's common shares are listed on the Canadian Securities Exchange under the trading symbol "PHRX". Its shares are also traded in the U.S. on the OTCQB under the ticker symbol "LMLLF".

Pharmadrug Production

The Company previously operated in the German medical cannabis distribution business through Pharmadrug Production GmbH ("Pharmadrug Production"), which held a Schedule I European Union ("E.U.") narcotics license, allowing for the importation and distribution of medical cannabis to pharmacies in Germany and throughout the E.U., if and when markets become legalized. Pharmadrug did not produce cannabis, and instead purchased medical cannabis flower from the Office of Medical Cannabis in the Netherlands. Pharmadrug Production was disposed of by the Company on August 2, 2022 (see "Discontinued Operations" section for details).

Interrobang/Super Smart

In June 2020, the Company acquired Interrobang Ltd. doing business as Super Smart. The Company was focused on consolidating the fragmented "smartshop" market in the Netherlands, with a particular focus on psychedelic-based products. Super Smart purchased its first psychedelic retail store in the town of Tiel, in central Netherlands in October 2020. Super Smart's plan was to add smartshops in the Netherlands, with a flagship store targeted to open in Amsterdam. With COVID-19 lasting much longer than initially anticipated, the Company had since pivoted from its initial plans and put the development of its brick-and-mortar strategy on hold. The Company was also developing its brand and business by establishing an online retail strategy under its Slim Winkel brand. Super Smart launched two separate e-commerce platforms: one in Europe and one in the U.S. The Company subsequently closed the European online store and has since ceased all European operations.

Following the sale of Pharmadrug Production and the ceasing of all operation in Europe, the board of directors (the "Board") of the Company had decided to streamline Pharmadrug's focus into a biotech only strategy. Management also came to realize that the functional mushroom marketplace was already crowded with a growing number of new entrants. As a result, the Company wound down all operations within Super Smart in the U.S. Pharmadrug has now fully exited the psilocybin and functional mushroom business.

Sairiyo

Sairiyo is focused on repurposing and developing improved formulations of naturally derived compounds for serious, rare, and life-threatening diseases. Sairiyo aims to obtain European Medicines Evaluation Agency and U.S. Food and Drug Administration ("FDA") approval. It is advancing the clinical development of its lead drug candidate, cepharanthine (PD-001), a repurposed and reformulated naturally-derived compound for the potential treatment of cancer, neurological, inflammatory, and infectious diseases. Cepharanthine is a natural product and an approved drug used for more than 70 years in Japan to treat a variety of acute and chronic diseases. It was approved by the Pharmaceuticals and Medical Devices Agency, Japan for the following indications, Standard Commodity No. of Japan 87290 under approval numbers I3313KUZ08490003, 21300AMZ00648000 and 21300AMZ00650000:

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- 1942 Approved as a medicinal product for the treatment and prevention of tuberculosis.
- 1948 Viper bite; pertussis; bronchial asthma
- 1955 Gastric ulcer, gastric hyperacidity, gastritis
- 1957 Alopecia areata and pityriasis alopecia
- 1960 Middle ear catarrh with effusion
- 1962 Radiation therapy leukopenia
- 1995 Re-evaluation revealed radiation-induced leukopenia, loss of hair areata/pityriasis alopecia, middle ear catarrh with effusion (injection)

Cepharanthine is approved in Japan as an injectable, powder and tablet. In clinical research, cepharanthine exhibits multiple pharmacological properties including anti-oxidative, anti-inflammatory, immuno-regulatory, anti-cancer, anti-viral and anti-parasitic properties.

Sairiyo holds exclusive commercialization rights to U.S. patent 10,576,077 B2 which describes a method of manufacturing a soluble, orally bioavailable formulation of cepharanthine-2HCL. As part of the licensing terms with Southwest Research Institute® (“SwRI”) (San Antonio, Texas), the Company has secured quantities of cGMP drug substance and drug product, pre-clinical data, and certain know-how to support future possible FDA clinical trials. The license agreement also includes exclusive rights to commercialize the formulation detailed in U.S. patent 10,576,077 B2 for all fields of use and exclusive rights to the patent, method of manufacturing, clinical supply, pre-clinical data, and know-how to support FDA clinical trials. The Company does not own U.S. patent 10,576,077 B2, rather it owns the exclusive right to commercially develop PD-001 according to the methods of manufacturing claims set forth in the associated claims set.

Compared to generic cepharanthine, Pharmadrug’s novel formulation has been shown in rodent and non-rodent models to possess markedly superior bioavailability (more easily absorbed). Previous in vivo studies for the CEPN free base (generic) administered orally to humans demonstrated low bioavailability of 6-9% and similar studies in rodents given CEPN free base orally by gavage also exhibited low bioavailability of 5.65%¹. The low bioavailability of the CEPN free base was presumed to be primarily due to gelation during transit from the stomach through the intestinal tract². Oral bioavailability of PD-001 has been previously examined in rodent and non-human primates and upon acute exposure was found to be dose dependent and ranged from 41%-67%. These findings support the development of an orally administered formulation, and in so doing, removes the undesirable requirement for frequent intravenous dosing.

Sairiyo is currently focused on advancing the clinical development of cepharanthine to treat rare cancer diseases. Sairiyo was granted Orphan Drug Designation (“ODD”) status from the FDA for cepharanthine in the treatment of esophageal cancer in January 2021 and has since added some world class experts to its scientific advisory team. ODD status from the FDA provides numerous benefits such as tax credits, a more streamlined regulatory process, and seven years of marketing exclusivity post regulatory approval.

The first phase of the study aimed to compare cepharanthine to the current standard of care (“SoC”) in 60 human cancers. The Company was pleased to see that 20 of the 60 cells lines screened showed growth inhibition of at least 50% when exposed to cepharanthine levels previously determined to be well tolerated in a human clinical population. Additionally, there were several instances in which cepharanthine displayed growth inhibition which was comparable or superior to current gold standard treatments, including colorectal, liver and skin cancers. More notably, results of the study demonstrated that esophageal cancer was the most highly responsive of all sixty cancers examined.

Based on the results of the initial large in vitro cancer screen, the Company initiated a second study based on a short list of 23 cancers that were highly responsive to cepharanthine-2HCL. The Company updated the market on the results of the study in a press release dated November 18, 2021. Four instances of drug synergy (cepharanthine + chemotherapy) were revealed in the latest drug combination study. Cancer cell types and SoC treatments remain confidential for the purpose of filing subsequent intellectual property, but the Company provided results in the aforementioned press release for the four most promising types of cancer tested. Most notably, esophageal cancer was approximately five times more responsive to cepharanthine than the experimental positive control; a clinically approved chemotherapeutic agent. That esophageal cancer was shown to be the most highly responsive cancer examined further validates the Company’s motivation to expeditiously advance the clinical development of its patented enteric-coated oral formulation of cepharanthine for esophageal cancer and leverage the benefits of its ODD.

The Company announced in a press release dated February 1, 2022, that it had filed a provisional patent application in the U.S., which details the novel synergistic combination of cepharanthine (PD-001) and cabazitaxel on prostate cancer growth inhibition and also sets forth claims related to the use of PD-001, cabazitaxel and/or other taxane family members used in combination to treat primary, metastatic, and chemotherapy-resistant prostate cancer. While the potency of cepharanthine on prostate cancer was notable in the context of other common

¹ Deng Y, Wu W, Ye S, Wang W, Wang Z. Determination of cepharanthine in rat plasma by LC-MS/MS and its application to a pharmacokinetic study. *Pharm Biol.* 2017 Dec;55(1):1775-1779. doi: 10.1080/13880209.2017.1328446. PMID: 28521597; PMCID: PMC6130670.

² William E. Bauta, Joseph A. McDonough, Hong Dixon, Stephen T. Wellinghoff, Kevin FitzPatrick. Pharmaceutical salt forms of Cepharanthine and Tetrandrine. US Patent US10576077B2.

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chemotherapeutic agents, the Company reported that the combination of cepharanthine plus cabazitaxel provided unexpectedly synergistic reduction in prostate tumor cell survival. A provisional U.S. patent has now been filed to protect these findings and the Company plans to strategically build out and extend patent protection for PD-001 in the oncology space.

The Company has shipped its drug product, PD-001 to its contract research organization ("CRO") in support of the upcoming IND-enabling animal studies. These studies are designed to evaluate PD-001 efficacy, alone and in combination with SoC in two animal cancer models, esophageal and prostate cancer. The Company's prime cancer focus continues to be esophageal cancer for several reasons previously stated including the ODD awarded by the FDA. The currently designed animal model for esophageal cancer is to tackle the serious clinical issue of chemoresistance more thoroughly while also assessing cepharanthine's potential use as a monotherapy for esophageal cancer. The model for prostate was designed to evaluate cepharanthine's ability to provide synergy to current chemotherapies utilized.

The Company announced in a press release dated April 19, 2022, that a once-per-day oral regimen of PD-001, in combination with cabazitaxel provided statistically significant benefit from day 10 through to the end of dosing (day 21) in its recently completed prostate efficacy study (see "Outlook and Plans" for more details).

The Company announced in a press release dated June 16, 2022, that a once-per-day oral regimen of PD-001, in combination with paclitaxel significantly reduced tumor volume and improved tumor inhibition at the scheduled end of dosing (day 28 post implantation) in its recently completed esophageal cancer efficacy study. Following 28 days of paclitaxel administration tumor volume was reduced by 53% compared to the untreated control group (see "Outlook and Plans" for more details).

On a separate front, the Company had initiated preparation of a Pre-Investigational New Drug Application ("Pre-IND") for its patented enteric-coated formulation of cepharanthine as an oral antiviral pill to treat mild-moderate COVID-19 in 2021. Cepharanthine may work to lessen the effects of COVID infection. Cell, animal, and human studies have long reported the immunomodulatory and anti-inflammatory properties of cepharanthine. Cepharanthine has previously been shown to suppress cytokine production and the expression of cyclooxygenase; both of which are crucial to viral replication and inflammatory response. A 2019 study examined the effects of cepharanthine on human lung cells infected with the coronavirus HCoV-OC43. Following pre-treatment with cepharanthine, lung cells showed no virus-induced death. These findings were attributed to the ability of cepharanthine to inhibit viral RNA replication, block expression of viral proteins, and suppress production of proinflammatory molecules, thus preventing a deleterious exacerbation of cytokine response to the viral infection. Several third party validated library screens of approved and investigational drugs have identified cepharanthine as a forerunner drug candidate in the treatment of COVID-19 based on the superior antiviral properties it holds. Cepharanthine has been shown to be highly effective at blocking cell death following exposure to multiple different coronaviruses, including COVID-19. As such, it is believed that the Company's novel formulation of cepharanthine, PD-001 would be an appropriate candidate to evaluate as a potential treatment for mild to moderate COVID-19.

The Company announced on November 30, 2021, the successful completion of its Type B Pre-IND meeting with the FDA, for which a Pre-IND briefing package and meeting request letter was submitted in September 2021. The FDA has provided written responses to the Company regarding its clinical development plan for PD-001, a patented enteric-coated formulation of cepharanthine, as a potential oral antiviral pill for COVID-19. Pharmadrug believes the written response provides a path to agreements on IND-enabling studies, the design of a Phase I/2 clinical study, and the overall clinical development plan to move PD-001 forward as an oral treatment for COVID-19. By extension, the FDA guidance also provides important insights on advancing PD-001 as a potential treatment for oncology indications as part of the Company's ongoing strategy of targeting rare and life-threatening conditions. The Company continues to focus on completing the remaining IND-enabling studies to support future clinical studies.

In response, the FDA addressed Pharmadrug's questions related to manufacturing, safety/toxicology, pre-clinical efficacy studies, clinical trial design, and rationale necessary to support subsequent human clinical trials. The feedback provides the Company with greater clarity on the current requirements needed to file an IND to initiate a Phase I/2 clinical trial of PD-001 in patients with COVID-19, or for potential oncology indications. Based upon the historical clinical data for generic cepharanthine and the Company's pre-clinical testing performed on PD-001 thus far, Pharmadrug anticipates filing an IND in the next year or two, albeit for the oncology space. Timing will depend largely on the funding landscape for micro-cap biotech stocks in Canada.

Following FDA feedback, the Company plans to continue the development of PD-001, albeit for oncology. The Company plans to conduct several nonclinical safety, toxicology, virology assessments, as well as scale-up of drug product manufacturing. The current described work is necessary to bring PD-001 to the clinic regardless of the indication of focus.

The Company announced in a press release dated October 4, 2022, that it has completed cGMP manufacturing of a multi-kilogram lot of cepharanthine-2HCl for use in the final drug product production of PD-001, its patented, orally bioavailable version of cepharanthine (see "Outlook and Plans" for more details).

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As part of its pharmaceutical psychedelic research efforts, Sairiyo is also actively engaged in conducting research on DMT. The Company is collaborating with top-tier academic psychedelic teams on foundational DMT research to be able to build internal intelligence as a method to establishing its explicit commercial strategy.

Foundational DMT research refers to supporting basic research on the endogenous synthesis and effects of DMT on normal function. This work is being conducted by a respected academic, Dr. Jimo Borjigin, from the University of Michigan ("UofM"). These studies include phenotypic characterization of a genetic knockout line of animals engineered to not produce endogenous DMT. The Company also supports basic research into the impact of DMT when delivered exogenously to healthy human volunteers at Johns Hopkins University ("JHU"). The work is foundational in regard to the fact that it aims to elucidate how DMT and another undisclosed acute-acting psychedelic test article provoke profound hallucinatory states by activating completely distinct receptor signaling pathways in the brain. The Company has the right to license data and any resulting intellectual property generated under the terms of the research agreements with UofM and JHU to exploit for its commercial efforts as it sees fit.

The goal of the research is to bring a tryptamine-based medical product, capable of lower pathologically high intraocular pressure, to those in need (those suffering from primary open angle glaucoma ("POAG")). To do so, the Company intends to evaluate the efficacy of tryptamine-based candidate molecules in various in vitro and in vivo models of glaucoma. Should the Company's formulation show benefit in the studies currently underway, it intends to execute on non-clinical development efforts necessary to file an IND application. Such activities are generally well understood and advice/guidance from the FDA will be sought by the Company where and when appropriate.

The Company's DMT research efforts have focused on developing unique formulations while investigating DMT's role and potential in the human body outside of neuro-psychiatric functions and conditions. DMT has been shown to have anti-oxidative and anti-inflammatory properties. On April 28, 2021, the FDA had granted Sairiyo ODD for prevention of ischemia-reperfusion injury ("IRI") in patients undergoing solid organ transplantation, which includes the liver, kidney, heart, and lungs. The FDA ODD granted was broader than the Company's original application for kidney transplantation, recognizing the pernicious consequences of IRI in all solid organ transplantation.

Before filing an IND application with the FDA to evaluate DMT in human clinical trials, the Company expects to advance its overall DMT strategy on three separate initiatives: (i) Pharmadrug is already at work evaluating specific DMT formulations aimed at superior delivery and improved efficacy; (ii) management will contemplate additional pre-clinical research in inflammatory and oxidative stress-induced complications, including organ transplants, to better understand the role DMT plays in the field, and (iii) the Company will broaden its scope to evaluate other rare indications that potentially could benefit from DMT.

The Company felt there was a more immediate opportunity to focus on DMT's potential for conditions in the eye, namely glaucoma. The rationale behind this is management's view that a potential successful psychedelic strategy requires the combination of a unique indication, unique formulation, and a unique delivery technology.

Tryptamines, such as DMT for eye diseases, represent the right opportunity to fulfill the objectives of identifying a unique indication, unique formulation, and a unique delivery technology. Management was able to capitalize on the Company's Chief Scientific Officer's ("CSO") many years of experience in targeting receptor pathways combined with existing literature to develop the concept. Essentially, glaucoma causes pathological increases in intraocular pressure ("IOP") that can cause progressive and irreversible vision loss. Many remedies are available in the form of topical drops. None of the treatments are completely successful due in part to side effects, lack of compliance and the increase in IOP overnight when drops are not administered. Previous research has shown that elevated IOP can be reduced through activation of serotonin receptors, but attractive drug candidates and methods of delivery remain to be developed. More specifically, tryptamine family members (of which DMT is one) have been shown to reduce IOP by activating 5HT-1a and 5HT-2a receptors in regions of the eye known to regulate fluid dynamics/pressure. The Company is currently evaluating novel formulations of DMT (as well as undisclosed analogues) that can address elevated IOP. Once these studies are complete the Company plans to elect the optimal candidate to be incorporated into a controlled release device for the treatment of glaucoma.

Pharmadrug was able to form a collaboration with the Terasaki Institute for Biomedical Innovation ("TIBI"), a world leading biotechnology institute which develops medical devices and cutting-edge protocols for a variety of diagnostic, monitoring, and treatment applications. Their research platforms include work in biomaterials, cellular and tissue engineering, wearable biosensors, and organs-on-a-chip, with specific expertise in novel polymer development. The goal of the collaboration was to develop an ocular medical device that can continuously and slowly release a reformulated DMT or DMT analogue to reduce IOP. Pharmadrug would contribute the chemical formulations and TIBI would use its in-house technology to select and develop an effective delivery mechanism.

Based on considerations related to physiochemical properties, resistance to metabolic breakdown and anticipated downstream formulation requirements, the Company selected six lead candidate molecules. Following successful in vitro efficacy studies, the Company was then able to elect its final lead formulation. The Company also announced in a press release dated April 7, 2022 that in collaboration with TIBI, it has successfully completed fabrication of a novel medical device capable of delivering sustained, low (sub-psychedelic) quantities of their

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undisclosed tryptamine-based pharmaceutical to the front of the eye; the intended purpose of which is to potentially lower intraocular pressure (IOP) in patients suffering from glaucoma. A provisional patent application, detailing the novel and superior aspects of the lead compound and medical device has been planned, but put on hold. Ultimate timing will depend largely on the funding landscape for micro-cap biotech stocks in Canada (see "Outlook and Plans" for more details).

Patents

The Company holds an exclusive commercialization right to U.S. patent 10,576,077 B2 which describes a method of manufacturing a soluble, orally bioavailable formulation of cepharanthine-2HCL. As part of the licensing terms with SwRI, the Company has secured quantities of cGMP drug substance and drug product, pre-clinical data, and certain know-how to support future FDA clinical trials. The license agreement also includes exclusive rights to commercialize the formulation detailed in U.S. patent 10,576,077 B2 for all fields of use.

Based on recently generated data in the oncology space which examined the efficacy of cepharanthine-2HCL alone and in combination with standard of care chemotherapeutic agents, the Company sought counsel on filing a provisional patent and a Patent Cooperation Treaty ("PCT"). The provisional patent application was filed in February 2022 and the PTC application was filed in January 2023.

Corporate Developments

On January 31, 2023, the Company announced its filing of a PTC application for PD-001, for the treatment of prostate cancer, alone or in combination with SoC chemotherapeutics, as well as for other indications where the drug has shown efficacy in pre-clinical trials.

On February 13, 2023, the Company announced its intention to pursue a first-in-human study of its lead development candidate, PD-001, in Australia during the second half of 2023. The proposed multi-site open label randomized controlled clinical investigation of safety, tolerability, and pharmacokinetics of PD-001 in esophageal cancer subjects.

On February 22, 2023, the Company announced it had entered into a research collaboration agreement with PharmaTher Holdings Ltd. ("PharmaTher") to evaluate the delivery of DMT using PharmaTher's microneedle patch delivery technology.

On May 5, 2023, the Company was issued a "failure to file" cease trade order (the "CTO") in respect of the Company's securities under Multilateral Instrument 11-103 Failure-to-File Cease Trade Orders in Multiple Jurisdictions, by the Ontario Securities Commission. The CTO was issued as a result of the Company's failure to file its audited financial statements, MD&A and related certifications for the fiscal year ended December 31, 2023 (collectively, the "Required Filings") before the May 1, 2023 filing deadline. The Company had since filed the Required Filings on May 12, 2023 and on May 15, 2023, the OSC granted Pharmadrug a revocation order on the CTO.

On May 23, 2023, the Company appointed David Posner to its Advisory Committee and as a consultant with a mandate for strategic initiatives and corporate restructuring. The Board of Pharmadrug is assessing strategic alternatives to be able to yield maximum shareholder value for its cepharanthine and DMT programs which management believes is being significantly undervalued by the markets at this current time. Possible avenues include potential entries into joint ventures in order to add intellectual bench strength, scientific program synergies and short to mid term financial flexibility. Management has already begun discussions with several companies, although there is no guarantee an agreement will be reached. Pharmadrug's intention is to keep operational control of its cepharanthine and DMT programs. As part of this initiative, the Company has parted ways with its Chief Science Officer ("Former CSO"), Paul Van Slyke.

Financing Activities

On April 14, 2023, the Company raised \$100,000 through another issuance of debenture units (each a "2023 Debenture Unit"). Each 2023 Debenture Unit is comprised of a \$1,000 principal amount convertible secured debenture and 20,000 Warrants. Each 2023 Debenture Unit bears interest at a rate of 15% per annum payable monthly in arrears, matures one year from the date of issue and is convertible into common shares at a price of \$0.05 (subject to adjustment). The proceeds raised will be used for working capital purposes (see "Subsequent Events" for more details).

Outlook and Plans

Cepharanthine Development

Based on positive feedback from the FDA on our proposed Chemistry and Manufacturing Control program, Pharmadrug has initiated cGMP production at SwRI of a quantity of PD-001 expected to be sufficient to support development activities Phase I and the beginning of a Phase II assessment. The Company is developing the product for intended use in 3 potential FDA clinical trials, namely Esophageal Cancer, Prostate Cancer and as an anti-viral including SARC-CoV-2 (COVID-19).

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The Company announced in a press release dated October 4, 2022, that it has completed cGMP manufacturing of a multi-kilogram lot of cepharanthine-2HCl for use in the final drug product production of PD-001, its patented, orally bioavailable version of cepharanthine. The Company's capital investment directed at drug synthesis optimization over the last two quarters have resulted in a product yield increase of approximately 30% compared to historical values. Completion of this lot significantly advances the Company's efforts to support pre-clinical and clinical development, including commencement of any in human clinical study. The Company has also spent the last 2 quarters completing specific test methods required by the FDA for the quantification of drug attributes to support the issuance of the certificate of analysis and master batch record. Final release testing is ongoing and the Company expects final certificates of analysis in the next couple of months. The Company also formally engaged Genvion Corporation ("Genvion") to complete necessary ICH-compliant stability testing and forced degradation studies in support of future IND filings to the FDA. On behalf of the Company, Genvion will take receipt of the cGMP drug substance and complete all manufacturing efforts necessary to produce the orally bioavailable clinical drug product, PD-001. Genvion was scheduled to take receipt of the cGMP drug substance in January 2023, however the Company has delayed delivery as it is waiting for final certificates of analysis. The Company will update the market on timing of delivery of drug substance to Genvion in the next couple of months.

The Company announced in a press release dated February 13, 2023, the Company intends to pursue a first-in-human study of its PD-001 in Australia prior to pursuing an IND application with the FDA. The Company's decision to pursue clinical development of PD-001 for cancer initially in Australia derives from a streamlined regulatory framework established by Australia's Therapeutic Goods Administration (TGA) that permits a sponsor to bypass the lengthy and costly process of filing an IND application that would be required by the FDA, while also allowing a sponsor to evaluate its investigational drug prior to committing to larger clinical studies in the U.S. and Europe. In addition to the world-class facilities and deep clinical trial expertise located in Australia, the Company can also take advantage of Australia's Research and Development (R&D) tax incentive program which will provide the Company with up to a 43.5% refund on all R&D expenditures. Strict adherence to guidelines set forth by TGA ensures that the Company's clinical trial data will be acceptable to other regulatory bodies including the FDA. For the Company, human clinical data generated from Australia would de-risk PD-001's clinical development plan and support further investigation of PD-001 in subsequent Phase 2 and confirmatory studies in the U.S. under an IND with the FDA. The Company initially targeted commencing the study in Q4, 2023, however timing will depend largely on the funding environment for micro-cap biotech stocks and the Company's ability to raise the appropriate funds.

Cepharanthine Efficacy Studies

The Company announced in a press release dated April 19, 2022, that a once-per-day oral regimen of PD-001, in combination with cabazitaxel provided statistically significant benefit from day 10 through to the end of dosing (day 21) in its recently completed prostate efficacy study. Accordingly, the Company filed a second provisional patent application to support new claims specifically related to the in vivo dosing of cepharanthine in combination with taxane-family members for the treatment of prostate cancer. The addition of PD-001 to the standard of care, cabazitaxel was found to improve tumor growth inhibition by 73% compared to cabazitaxel-alone. These results were deemed to be highly statistically significant. Furthermore, the addition of PD-001 to cabazitaxel did not notably increase toxicity compared to cabazitaxel alone. Further studies may be undertaken while PD-001 is prepared for the clinic that would look at optimizing dosing or potentially assessing cepharanthine's potential to reduce chemo toxicity.

The Company announced in a press release dated June 16, 2022, that a once-per-day oral regimen of PD-001, in combination with paclitaxel significantly reduced tumor volume and improved tumor inhibition at the scheduled end of dosing (day 28 post implantation) in its recently completed esophageal cancer efficacy study. Following 28 days of paclitaxel administration tumor volume was reduced by 53% compared to the untreated control group. Significantly, paclitaxel provided robust tumor growth inhibition in the early portion of the study, but during the second half, the rate of tumor growth tended to accelerate. This observation mirrors that which is often noted in the clinical treatment of esophageal cancer patients; with the development of chemoresistance often noted after a period of treatment. PD-001 delivered at a dose of 27 mg/kg/day combined with paclitaxel provided an improvement of 41% in tumor volume reduction beyond that of paclitaxel alone (day 28 post tumor implantation). This result was found to be statistically significant versus paclitaxel alone ($p=0.0049$). PD-001 (27 mg/kg/day) tended to provide tumor growth inhibition as early as day 17 post implantation (40% greater than paclitaxel alone), that peaked at day 20 (84% greater than paclitaxel alone). Persistence of effects for PD-001 in combination with paclitaxel was measured during the 10-day study recovery phase during which time drugs were not administered. During this period, those animals that had previously received paclitaxel with PD-001 at 27mg/kg/day (combination therapy) demonstrated a weeklong, statistically significant improvement in tumor volume compared to those treated with paclitaxel alone.

In addition to the Company's activities in the oncology space, primary virology studies are currently being planned for execution in Q2 2023. Thus far, the Company has been encouraged by the multiple, peer-reviewed studies demonstrating the in vitro and in vivo antiviral properties of cepharanthine on SARS, MERS, and SARC-CoV-2 (COVID-19). To best understand the underlying mechanisms by which cepharanthine mediates, and to more fully validate these independent findings the Company intends to test evaluate the in vitro antiviral potency of PD-001 on a panel of SARS-CoV-2 variants.

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Additionally, cepharanthine has previously shown antiviral properties against multiple viruses including ebola, zika and herpes simplex virus. Such broad-spectrum antiviral activity is quite a rare drug attribute. Consistent with this, the Company intends to more fully explore additional opportunities for PD-001 in viral disease. To do so, the Company intends to commission a study to evaluate the antiviral capacity of PD-001 in a broad, in vitro panel of human viral pathogens.

Pharmaceutical Psychedelics Research

Pharmadrug and Sairiyo had already begun to develop a strategy to commence a unique and value adding research program in the psychedelic space prior to signing the purchase agreement. Following the acquisition of Sairiyo (the "Sairiyo Acquisition") and its biotech R&D core competencies, Pharmadrug has undertaken efforts to expand its research activities in the pharmaceutical psychedelics space, which will focus specifically on DMT. Through engagement with respected academics and medical/clinical key opinion leaders in the space, management will initiate pivotal preclinical and clinical development activities. Pharmadrug has brought on Dr. Steven A. Barker, a world-renowned chemist and neuroscientist, as an advisor. The Company is collaborating with top-tier academic scientists on foundational DMT research to be able to build internal intelligence to serve as the building block at establishing its explicit commercial strategy. The first such relationship was announced in March 2021 with the funding of a foundational study at UofM on the role of naturally occurring DMT in the brain.

On August 25, 2021, the Company announced that it had entered into a Clinical Trial Agreement with JHU to conduct a clinical study comparing acute and enduring psychological and neural effects of DMT and an undisclosed, potentially active comparator molecule. This clinical research collaboration builds upon Pharmadrug's existing strategy of focusing on establishing a better understanding of the basic mechanisms by which DMT exerts its effects in the brain and elsewhere in the body. By supporting world class talent with distinct expertise in early discovery and clinical use, the Company will be positioned to identify novel applications for DMT and unlock its full therapeutic potential. The team at JHU is currently finalized an IND application in Q4, but the Company has decided to postpone the application. Management will wait for the funding environment to improve, specifically in the pharmaceutical psychedelic sector.

The Company was also able to form a collaboration with TIBI, which is a world-leading biotechnology institute which develops medical devices and cutting-edge protocols for a variety of diagnostic, monitoring, and treatment applications. Their research platforms include work in biomaterials, cellular and tissue engineering, wearable biosensors, and organs-on-a-chip, with specific expertise in novel polymer development. The goal of the collaboration is to develop an ocular medical device that can continuously and slowly release a reformulated DMT or DMT analogue to reduce IOP. Pharmadrug has contributed the chemical formulations and the TIBI will use its in-house technology to select and develop an effective delivery mechanism. During the first stage of the collaboration, the TIBI's scientists have used human, primary cell-based studies to identify the most potent candidate tryptamine.

Based on considerations related to physiochemical properties, resistance to metabolic breakdown and anticipated downstream formulation requirements, the Company selected six lead candidate molecules. Following successful in vitro efficacy studies, the Company was then able to elect its final lead formulation. The Company also announced in a press release dated April 7, 2022 that in collaboration with TIBI, it has successfully completed fabrication of a novel medical device capable of delivering sustained, low (sub-psychedelic) quantities of their undisclosed tryptamine-based pharmaceutical to the front of the eye; the intended purpose of which is to potentially lower intraocular pressure (IOP) in patients suffering from glaucoma. A provisional patent application, detailing the novel and superior aspects of the lead compound and medical device is planned for Q4 2023. All downstream development efforts for the Company's tryptamine program in POAG will focus on the newly elected lead molecule. The next phase will focus on further characterizing the drug's mechanism of action and identifying suitable animal efficacy models and contract research facilities where the Company will commission an IND enabling efficacy study to evaluate the extent of symptom resolution (intraocular hypertension). The Company believes it is in position from an in vitro efficacy standpoint to conduct necessary animal studies but will wait for capital market conditions in the psychedelic sector to improve in order to raise adequate capital. The intention will be to submit a primary scientific manuscript and to file for provisional patent(s). The ultimate goal is to bring the product to the FDA in the form of a Pre-IND application for the purpose of charting a smooth path towards a future clinical trial.

Pharmadrug Inc.

Management's Discussion and Analysis
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Financial Information

Selected financial information

The Company's selected financial information as at the end of the reporting period and for the three most recently completed financial years ended December 31, are summarized as follows:

	2022 ³	2021 ³	2020
	\$	\$	\$
Sales revenue	-	7,009	683,671
Gross profit (loss)	(2,263)	(2,155)	182,037
Operating expenses	(2,418,461)	(2,794,340)	(4,020,752)
Other expenses	(833,363)	(1,487,479)	(2,063,912)
Net loss from continuing operations	(3,064,087)	(4,283,974)	-
Net loss from discontinued operations	(5,811,600)	(1,589,580)	-
Net loss and comprehensive loss	(8,836,305)	(5,752,539)	(4,906,124)
Total assets	12,112,201	19,520,440	13,688,600
Total liabilities	3,276,945	2,655,126	2,775,651
Shareholders' equity	8,835,256	16,865,314	9,657,057

Selected quarterly financial results

As a result of the Sale of Pharmadrug Production and the exit from the from the psilocybin and functional mushroom business, and with their financial results being presented as discontinued operations, the sales, operating expenses and other expenses presented on the quarterly table below exclude the financial information of Pharmadrug Production and Interrobang Online. To conform to the presentation required, the financial results of the former German subsidiary and Interrobang Online had been presented in the net loss from discontinued operations.

Selected financial information for the eight most recently completed quarters as follows³:

	Q1 2023	Q4 2022	Q3 2022	Q2 2022
	\$	\$	\$	\$
Sales revenue	-	(3,395)	2,531	-
Operating expenses	(214,142)	(225,014)	(555,882)	(550,355)
Other income (expenses)	35,369	2,487,397	(2,475,405)	(307,102)
Net income (loss) from continuing operations	(178,773)	2,449,730	(3,028,756)	(857,457)
Net (loss) from discontinued operations	-	(3,031,908)	2,176,422	(4,526,113)
Income (loss) per share from continuing operations – basic and diluted	(0.001)	0.007	(0.009)	(0.002)
Income (loss) per share from discontinued operations – basic and diluted	(0.000)	(0.009)	0.006	(0.013)

	Q1 2022	Q4 2021	Q3 2021	Q2 2021
	\$	\$	\$	\$
Sales revenue	-	2,484	4,080	1,255
Operating expenses	(1,044,776)	(663,771)	(801,486)	(617,221)
Other income (expenses)	(567,737)	(651,558)	(159,171)	(171,062)
Net loss from continuing operations	(1,614,668)	(1,320,267)	(959,468)	(787,100)
Net loss from discontinued operations	(442,936)	(112,243)	(415,026)	(447,573)
Loss per share from continuing operations – basic and diluted	(0.005)	(0.004)	(0.003)	(0.002)
Loss per share from discontinued operations – basic and diluted	(0.001)	(0.0003)	(0.001)	(0.001)

³ For comparative purposes, all figures on the quarterly tables had been retroactively adjusted to reflect the results of operations of Pharmadrug Production and Interrobang Online being reclassified as discontinued operations.

Pharmadrug Inc.

Management's Discussion and Analysis
For the Three Months ended March 31, 2023

Financial Results for the Three Months ended March 31, 2023

Results of operations

During the three months ended March 31, 2023 ("Q1 2023"), the Company did not record any sales revenue from its continuing operations (2022 – \$nil). It also did not record any cost of goods sold (2022 – \$2,155).

In Q1 2023, the Company incurred total operating expenses of \$214,142, as compared to total operating expenses of \$1,044,776 in the comparative period, for a decrease of \$860,634. The decrease in operating expenses incurred is primarily due to:

- Decrease of \$333,570 in share-based compensation to \$nil (2022 – \$399,570) as a result of vesting of options recorded in the comparative period.
- Decrease of \$286,645 in research expenses to \$12,840 (2022 – \$299,485) as a result of a forced suspension in research work due to a lack of funds. In the comparative period, various research activities were carried out by the Company in connection with various health and academic institutions, in advancing the clinical development of cepharanthine.
- Decrease of \$99,451 in management salaries and consulting fees to \$89,373 (2022 – \$188,824) as significant salaries had been deferred due to a lack of funds.

In Q1 2023, the Company recorded other income of \$35,369, as compared to other expenses of \$567,737 incurred in the comparative period. Finance costs, comprising interest and accretion on convertible debentures totaled \$71,330 (2022 – \$41,576). In terms of investments held by the Company, there was a realized loss of \$56,349 recorded on disposition of certain investments (2022 – \$nil). A fair value increase of \$158,842 (2022 – fair value decrease of \$141,576) was also recorded on the valuation of the liquid investments.

Based on the above, net loss from continuing operations for Q1 2023 was \$178,773, as compared to net loss from continuing operations of \$1,614,668 from the comparative period. As part of the Sale of Pharmadrug Production and Interrogang Online's exit from the psilocybin and functional mushroom business, the Company also recorded a loss of discontinued operations of \$442,936 during the three months ended March 31, 2022.

Total net loss for Q1 2023 was \$178,119, as compared to a net loss \$2,057,604 in 2022.

Cash flows

Net cash used in operating activities during Q1 2023 was \$92,262, as compared to net cash used in operating activities of \$1,252,499 in the comparative period, for a decrease in spending of \$1,160,237. Subsequent to the Sairyo Acquisition which closed in February 2021, the Company had spent a significant amount on professional fees and research expenses on cepharanthine-related initiatives. The sale and halt in operations of the operations in Germany and Netherlands also resulted into a decrease in operating activities in the current period compared to the comparative. At the same time, management intends to maintain a tight control on spending and ensuring that only essential expenses will be incurred at a reasonable cost.

Net cash provided by financing activities during Q1 2023 was \$116,540, as compared to net cash used of \$16,362 in the comparative period, for an increase of \$132,902. The Company made payments of \$96,000 and \$20,540, respectively, on principal repayment and interest on debentures during the current period. In the comparative period, the Company made lease payments of \$3,196 for its premise in the Netherlands, and \$13,166 from discontinued operations.

Net cash provided by investing activities during Q1 2023 was \$207,922 (2022 – \$nil), comprised of proceeds received from disposal of Khiron shares.

Discontinued Operations

Pharmadrug Production

On February 27, 2019, the Company acquired an 80% ownership in Pharmadrug Production (the "Pharmadrug Acquisition"), for a purchase price of €4.6 million settled in cash (\$7,101,848). The seller, Anquor Pharmaceuticals Ug ("Anquor"), retained a 20% non-controlling interest ("NCI") in Pharmadrug Production. In addition, the Company had advanced €400,000 (approximately \$601,520) to Pharmadrug Production as a shareholder loan to assist the German subsidiary to maintain appropriate levels of working capital.

On May 17, 2019, the Company completed the Pharmadrug Acquisition. Goodwill of \$4,605,861, which is not tax deductible, was recognized due to the expected synergies from combining operations of the Company and Pharmadrug Production.

Pharmadrug Inc.

Management's Discussion and Analysis
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On July 14, 2021, the Company acquire the 20% NCI (the "NCI Acquisition") in Pharmadrug Production, to obtain 100% ownership, for a purchase price consideration of €35,000 (approximately \$52,879) payable in cash. On August 25, 2021, the Company completed the NCI Acquisition by transferring the purchase price consideration to Anquor.

On May 31, 2022, the Company entered into the SPA to sell 100% of Pharmadrug Production to Khiron, for consideration consisting of common shares in the capital of Khiron ("Consideration Shares") and a non-interest-bearing promissory note (the "Promissory Note") in the principal amount of \$1,100,000 which will be payable one year from the date of issue. On August 2, 2022 (the "Closing Date"), the Company closed the sale of Pharmadrug Production (the "Sale"). Pursuant to the terms of the SPA, the Company received in consideration, 5,968,750 Consideration Shares and the Promissory Note in the principal amount of \$974,137 (the "Principal Amount").

The Promissory Note will be immediately due and payable by the Buyer on the first anniversary of the issue date (the "Promissory Note Maturity Date"). The Principal Amount will be payable in cash unless the Buyer elects in its sole discretion and by written notice delivered to the Company at least two days prior to the Promissory Note Maturity Date, to convert the unpaid Principal Amount in full into such number of fully paid and non-assessable common shares of Khiron equal to the quotient obtained by dividing (i) the unpaid Principal Amount by (ii) the 10-day volume-weighted average of the trading price per common share of Khiron on the TSX Venture Exchange for the previous consecutive 10 trading days ending on (and including) the trading day immediately prior to the Promissory Note Maturity Date.

The Consideration Shares are subject to a lock-up agreement pursuant to which the Company agrees not to sell, transfer or otherwise dispose of an aggregate of 5,000,000 Consideration Shares received on closing (the "Lock-Up Restriction") for an initial period of 90 days following the Closing Date, following which a total of 1,250,000 Consideration Shares will be released from the Lock-Up Restriction; and after this initial period, the Lock-Up Restriction will be lifted every 90 days thereafter, in each case in respect of an additional 1,250,000 Consideration Shares, such that all Consideration Shares subject to Lock-Up Restriction will be released 360 days from the date of issue of the Consideration Shares.

As a result of the Sale, the results of operations and cash flows related to the German business have been presented as discontinued operations in the Company's consolidated statements of loss and comprehensive loss and cash flows.

Financial information relating to the discontinued operations for Pharmadrug Production for the three months ended March 31, 2023 and 2022 is set out below:

	2023	2022
	\$	\$
Revenue	-	101,813
Expenses	-	(591,519)
Operating loss	-	(489,706)
Finance costs	-	157
Loss before tax from discontinued operations	-	(489,549)
Tax from ordinary activities for the period	-	89,951
Loss from Discontinued Operations	-	(399,598)

Net cash flows incurred by Pharmadrug Production presented on the consolidated statements of cash flows for the three months ended March 31, 2023 and 2022 are summarized as follows:

	2023	2022
	\$	\$
Net cash flows (used in) operating activities	-	(181,943)
Net cash flows (used in) financing activities	-	(13,166)
Net cash flows (used in) investing activities	-	(1,579)
Net Decrease in Cash from Discontinued Operations	-	(196,688)

Interrobang Online Ltd.

Following the sale of Pharmadrug Production and the ceasing of all operation in the Netherlands and Europe, the Board of the Company had also decided to wind down all operations within Interrobang Online Ltd. ("Interrobang Online") in the U.S., as the Company had fully exited the psilocybin and functional mushroom business. As a result of the exit from the psilocybin and functional mushroom business, the

Pharmadrug Inc.

Management's Discussion and Analysis
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results of operations and cash flows related to Interrogang Online have also been presented as discontinued operations in the consolidated statements of loss and comprehensive loss and cash flows.

Financial information relating to the discontinued operations for Interrogang Online for the three months ended March 31, 2023 and 2022 is set out below:

	2023	2022
	\$	\$
Revenue	-	864
Expenses	-	(44,202)
Loss from Discontinued Operations	-	(43,338)

Net cash flows incurred by Interrogang Online presented on the consolidated statements of cash flows for the three months ended March 31, 2023 and 2022 are summarized as follows:

	2023	2022
	\$	\$
Net cash flows (used in) operating activities	-	(41,661)
Net cash flows (used in) financing activities	-	-
Net cash flows (used in) investing activities	-	-
Net Decrease in Cash from Discontinued Operations	-	(41,661)

Working Capital and Liquidity Outlook

The Company's objective when managing its liquidity and capital resources is to maintain sufficient liquidity to support financial obligations when they come due, while executing operating and strategic plans. The Company manages liquidity risk by monitoring its operating requirements and preparing budgets and cash flow forecast to identify cash flow needs for general corporate and working capital purposes, as well as for expansion initiatives.

As at March 31, 2023, the Company had a cash balance of \$8,361 (December 31, 2022 – \$8,555), a note receivable balance of \$974,137 (December 31, 2022 – \$974,137), and liquid investments valued at \$215,260 (December 31, 2022 – \$320,688), to settle current liabilities of \$2,251,506 (December 31, 2022 – \$2,196,601).

The Company currently has no regular cash flows from operations, and the level of operations is principally a function of availability of capital resources. The primary source of funding has been through the completion of private placement financings of equity securities and convertible debentures, as well as from proceeds on exercises of options and warrants.

Capital Management

The Company manages its capital structure and adjusts it, based on the funds available to the Company, in order to support the development of its planned business activities. The Board does not establish quantitative return on capital criteria for management, but rather relies on the expertise of the Company's management to sustain future development of the business. In order to carry out the planned business activities and pay for administrative costs, the Company will spend its existing working capital and raise additional funds as needed. Management reviews its capital management approach on an ongoing basis and believes that this approach, given the relative size of the Company, is reasonable.

The Company considers its capital to be shareholders' equity, which is comprised of share capital, equity component of convertible debentures, reserves for share-based payments and warrants, accumulated other comprehensive loss and accumulated deficit. As at March 31, 2023, the Company's capital consisted of equity attributable to the shareholders of Pharmadrug Inc. of \$8,656,516 (December 31, 2022 – equity attributable to the shareholders of Pharmadrug Inc. of \$8,835,256).

The Company's objective when managing capital is to obtain adequate levels of funding to support its business activities, to obtain corporate and administrative functions necessary to support organizational functioning and obtain sufficient funding to further the development of its business. The Company raises capital, as necessary, to meet its needs and take advantage of perceived opportunities and, therefore, does not have a numeric target for its capital structure. Funds are primarily secured through equity capital raised by way of private placements and issuance of convertible debentures. There can be no assurance that the Company will be able to continue raising capital in this manner.

The Company is not subject to externally imposed capital requirements.

Pharmadrug Inc.

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Related Party Transactions

In accordance with IAS 24 – Related Party Disclosures, key management personnel, including companies controlled by them, are those persons having authority and responsibility for planning, directing and controlling the activities of the Company directly or indirectly, including any directors (executive and non-executive) of the Company.

The remuneration of directors and other members of key management personnel during the three months ended March 31, 2023 and 2022 were as follows:

	2023	2022
	\$	\$
Management salaries and consulting fees	95,538	126,129
Professional fees	25,950	30,000
Share-based compensation	-	34,327
	121,488	190,456

Effective September 1, 2020, Pharmadrug and Daniel Cohen, its Chief Executive Officer (“CEO”), entered into an executive agreement, whereas the Company agreed to pay an annual base salary of \$120,000 for CEO services. The annual base salary shall be increased to \$180,000, exclusive of bonuses, benefits and other compensation, once the Company has raised a minimum of \$1,500,000. During the three months ended March 31, 2023, the Company recorded management salaries of \$30,000 (2022 – \$30,000) in relation to the CEO’s employment compensation. As at March 31, 2023, a balance of \$60,000 (December 31, 2022 – \$30,000) owing to the CEO was included in the accounts payable and accrued liabilities. The amount outstanding is unsecured, non-interest bearing and due on demand.

Effective May 1, 2021, Pharmadrug and the Former CSO, entered into an executive employment agreement, whereas the Company agreed to pay an annual base salary of \$140,000 for his services. During the three months ended March 31, 2023, the Company recorded management salaries of \$35,000 (2022 – \$35,000) in relation to the Former CSO’s employment compensation. As at March 31, 2023, a balance of \$42,583 (December 31, 2022 – \$17,500) owing to the Former CSO was included in accounts payable and accrued liabilities. The amount outstanding is unsecured, non-interest bearing and due on demand.

Effective January 10, 2022, Pharmadrug and Kenneth Sokoll, the former Vice President of Clinical Development (“Former VP–Clinical Development”) of the Company entered into an employment agreement, whereas the Company agreed to pay an annual base salary of \$160,000 for his services, and a one-time signing bonus of \$25,000. During the three months ended March 31, 2023, the Company recorded management salaries of \$30,538 (2022 – management salaries of \$36,129 and the signing bonus of \$25,000) in relation to the Former VP–Clinical Development’s employment compensation. As at March 31, 2023, a balance of \$39,204 (December 31, 2022 – \$20,000) owing to the Former VP–Clinical Development was included in accounts payable and accrued liabilities. The amount outstanding is unsecured, non-interest bearing and due on demand.

During the three months ended March 31, 2023, Branson Corporate Services Ltd. (“Branson”), where Keith Li, the Chief Financial Officer (“CFO”) and Corporate Secretary of Pharmadrug is employed, charged fees of \$25,950 (2022 – \$30,000), for providing CFO services to the Company, as well as other accounting and administrative services. As at March 31, 2023, a balance of \$133,721 (December 31, 2022 – \$109,336) owed to Branson included in accounts payable and accrued liabilities). The amount outstanding is unsecured, non-interest bearing and due on demand.

Share-based compensation

The Company granted a total of 8,500,000 and 7,000,000 options to various officers and directors in the 2020 and 2021 financial years, respectively, which vested into the 2022 financial year. During the three months ended March 31, 2022, total stock-based compensation of \$34,327 was recorded in connection with the vesting of these options.

Financial Instruments

The Company is exposed to various risks as it relates to financial instruments. Management, in conjunction with the Board, mitigates these risks by assessing, monitoring and approving the Company’s risk management process. There have not been any changes in the nature of these risks or the process of managing these risks from the previous reporting periods.

Credit risk

Credit risk is the risk of loss associated with a counterparty’s inability to fulfill its payment obligations. The Company’s credit risk is primarily attributable to cash and note receivable, which expose the Company to credit risk should the borrower default on maturity of the

Pharmadrug Inc.

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instruments. Cash is held with a reputable chartered bank in Canada, which is closely monitored. Management also reviews on a periodic basis the collectability of its receivables balance. As at March 31, 2023, management believes that the credit risk concentration with respect to financial instruments included in cash and note receivable is minimal.

Liquidity risk

Liquidity risk is the risk that the Company will not have sufficient cash resources to meet its financial obligations as they come due. The Company's liquidity and operating results may be adversely affected if the Company's access to the capital market is hindered, whether as a result of a downturn in stock market conditions generally or related to matters specific to the Company. The Company generates cash flow primarily from its financing and investing activities.

As at March 31, 2023, the Company had a cash balance of \$8,361 (December 31, 2022 – \$8,555), a note receivable balance of \$974,137 (December 31, 2022 – \$974,137), and liquid investments valued at \$215,260 (December 31, 2022 – \$320,688), to settle current liabilities of \$2,251,506 (December 31, 2022 – \$2,196,601).

As at March 31, 2023, the Company had the following contractual obligations:

	Less than 1 year	1 to 3 years	3 to 5 years	Total
	\$	\$	\$	\$
Accounts payable and accrued liabilities	857,323	-	-	857,323
Provisions	70,000	-	-	70,000
Convertible debentures	1,394,183	-	-	1,394,183
Total	2,321,506	-	-	2,321,506

The Company manages liquidity risk by maintaining adequate cash reserves and by continuously monitoring forecast and actual cash flows for a rolling period of 12 months to identify financial requirements. Where insufficient liquidity may exist, the Company may pursue various debt and equity instruments for short or long-term financing of its operations.

Management understands that the Company will continue to raise funds going forward in order to fund its planned activities.

Market risk

Market risk is the risk that the fair value of, or future cash flows from, the Company's financial instruments will significantly fluctuate due to changes in market prices. The value of financial instruments can be affected by changes in interest rates, foreign exchange rates, and equity and commodity prices. The Company is exposed to market risk in trading its investments and unfavorable market conditions could result in dispositions of investments at less than favorable prices. A 1% change in the closing price of the Company's other investments would impact net loss by approximately \$2,150 based upon balances as at March 31, 2023.

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Company's convertible debentures have fixed interest rates. As at March 31, 2023, the Company had no hedging agreements in place with respect to floating interest rates.

Foreign exchange risk

Foreign exchange risk is the risk that the Company will be subject to foreign currency fluctuations in satisfying obligations related to its foreign activities. The Company previously had operations in Europe (Germany and Netherlands) where there were financial instruments and transactions dominated in EUR, and in the U.S. where there are financial instruments and transactions denominated in USD. The Company's primary exposure to foreign exchange risk is that transactions denominated in EUR and USD may expose the Company to the risk of exchange rate fluctuations.

Fair value

Fair value estimates of financial instruments are made at a specific point in time based on relevant information about financial markets and specific financial instruments. As these estimates are subjective in nature, involving uncertainties and matters of significant judgment, they cannot be determined with precision. Changes in assumptions can significantly affect estimated fair values. The Company's financial instruments consist of cash, note receivable, other investments, accounts payable and convertible debentures.

Pharmadrug Inc.

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The fair value of note receivable, other investments, and accounts payable are approximately equal to their carrying value due to their short-term nature. The fair values of the convertible debentures approximate their carrying amounts as they were measured taking into consideration comparable instruments with similar risks in determining the rates at which to discount their amount in applying their respective measurement models.

	Level 1	Level 2	Level 3	Total
	\$	\$	\$	\$
Cash	8,361	-	-	8,361
Other investments	135,000	80,260	-	215,260

As at March 31, 2023, the Company's financial instruments carried at fair value consisted of its cash, which is classified as Level I, and its other investments, which have been classified as Level I (for investments in Khiron Shares) and Level 2 (for investments in RLH Warrants). There were no transfers between Levels 2 and 3 for recurring fair value measurements during the three months ended March 31, 2023, and the year ended December 31, 2022.

Contingencies

The Company may, from time to time, be subject to various administrative, regulatory, and other legal proceedings arising in the ordinary course of business. Liabilities associated with legal proceedings are recorded when (i) the liabilities are a result of a past event, (ii) it is probable that an outflow of resources will be required to settle the obligations, and (iii) a reliable estimate can be made of the amount of obligation.

As at March 31, 2023, the Company remained responsible for the following ongoing litigation cases relating to Pharmadrug Production. Pursuant to the terms of the SPA, the Company had assumed the liability or benefit of the outcome of the following legal proceedings:

- On August 20, 2019, THoR Beteiligungen GmbH ("THoR") incorrectly transferred an amount of €6,804 to Pharmadrug Production's business account and subsequently demanded its repayment. On October 22, 2019, Pharmadrug Production declared that the Company would offset this amount against a counterclaim against THoR, which subsequently issued a notice of assignment, according to which the claim had been assigned to Pharmadrug International GmbH ("Pharmadrug International") on September 27, 2019. Pharmadrug International has since filed a claim for repayment of a mismatch transfer against Pharmadrug Production for the same amount.
- On February 21, 2020, Thor Investments GmbH ("Thor Investments") filed a lawsuit with Pharmadrug Production for a repayment of a loan in the amount of €34,222 plus interest. The loan with Thor Investments dates back to March 2019.

As at March 31, 2023, the Company had recorded a provision of approximately \$70,000 for the estimated potential damages and liabilities it is expected to pay out.

Off-Balance Sheet Arrangements

As at March 31, 2023 and the date of this MD&A, the Company does not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the results of operations or financial condition of the Company.

Subsequent Events

Financing

On April 14, 2023, the Company raised \$100,000 through an issuance of the 2023 Debenture Units. Each 2023 Debenture Unit is comprised of a \$1,000 principal amount convertible secured debenture and 20,000 Warrants. Each 2023 Debenture Unit bears interest at a rate of 15% per annum payable monthly in arrears, matures one year from the date of issue and is convertible into common shares at a price of \$0.05 (subject to adjustment). Each 2023 Debenture Unit is secured by a GSA from the Company and Sairoyo.

Each subscriber is entitled to a closing fee in the amount of 8% of their aggregate subscription price which fee was paid by way of a set off against the \$1,000 Unit purchase price. Half of the proceeds realized from the consideration received from the Sale of Pharmadrug Production will also be paid to the holders of the debentures. The 2023 Debenture ranks pari passu with the Secured Debentures issued by the Company in August 2022. Each Warrant entitles the holder to acquire one common share at a price of \$0.05 per share for a period of two years following the date of issuance.

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Other transactions

On May 1, 2023, the CEO advanced an amount of \$37,072 to the Company for funding of working capital. The amount was repaid to the CEO on May 8, 2023.

Cease Trade Order

On May 5, 2023, the Company was issued the CTO in respect of the Company's securities under Multilateral Instrument II-103 Failure-to-File Cease Trade Orders in Multiple Jurisdictions, by the OSC. The CTO was issued as a result of the Company's failure to file its Required Filings before the May 1, 2023 filing deadline.

On May 12, 2023, the Company completed the Required Filings, and on May 15, 2023, the OSC granted Pharmadrug a revocation order on the CTO.

Disclosure of Outstanding Share Data as of May 25, 2023

	Authorized	Outstanding
Voting or equity securities issued and outstanding	Unlimited number of common shares	355,626,346 common shares
Securities convertible or exercisable into voting or equity		55,652,328 warrants exercisable to acquire common shares of the Company, and 21,850,000 outstanding and exercisable stock options to acquire common shares of the Company.

Significant Accounting Judgments and Estimates

The preparation of the Company's consolidated financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of policies and reported amounts of assets, liabilities, revenue and expenses. These are described in greater detail in Note 2(f) to the Q1 2023 Financial Statements.

Summary of Significant Accounting Policies

The accounting policies applied by the Company are the same as noted in the 2022 Financial Statements.

Regulatory Overview

A summary of the applicable regulatory framework for the Company's current business segment is set forth below.

Business Segment	Current/Proposed Location of Operation	Summary of Applicable Regulatory Frameworks	Third-party Researchers, Suppliers, and/or Manufacturers	Agreements / Contracts Related to Operations
Sairiyo	United States	The Federal Food, Drug and Cosmetic Act. Controlled Substances Act Regulatory approvals are obtained by the Company's third-party researchers referenced in the next column for	UofM (Sponsored Research) SwRI (Cepharanthine Manufacturing) TIBI (Sponsored Research of Tryptamines)	On March 1, 2021, a research agreement was entered with UofM, with the objective to understand the mechanisms that regulate the synthesis of endogenous DMT. On April 15, 2021, a contract for services was entered with SwRI to initiate non-clinical and clinical manufacturing of cepharanthine for the Company's rare cancer and infectious diseases programs. On August 4, 2021, a sponsored research agreement was entered with TIBI with the objective to perform in vitro and in vivo testing in tryptamines relating to glaucoma.

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Business Segment	Current/Proposed Location of Operation	Summary of Applicable Regulatory Frameworks	Third-party Researchers, Suppliers, and/or Manufacturers	Agreements / Contracts Related to Operations
		DMT and Tryptamines.	JHU (Sponsored Research for DMT) Crown Bioscience Inc. ("Crown Bioscience") (Cepharanthine Efficacy Testing Lab)	On July 9, 2021, an investigator-initiated clinical trial agreement was entered with JHU, with the objective to conduct a clinical study comparing acute and enduring psychological and neural effects of DMT and other psychedelic compounds. In 2021, research activities were contracted out to Crown Bioscience, which conducts studies directed by Pharmadrug to "assess the efficacy of cepharanthine in the treatment of cancers in both in vitro and in vivo studies". For more information, see "Research and Development Projects" below.

Cepharanthine

Cepharanthine, a bisbenzylisoquinoline alkaloid isolated from tubers of *Stephania*, has been used in Asia for hundreds of years and has been approved by the Pharmaceutical and Medical Devices Agency in Japan for more than 70 years. Cepharanthine is not a controlled substance in the U.S. or China and the Company does not conduct or currently plan to conduct research with respect to cepharanthine in any other countries. The Company intends to develop its novel enteric coated cepharanthine drug product for cancer and infectious disease using a 505(b)(2) regulatory pathway. The 505(b)(2) New Drug Application ("NDA") is a streamlined NDA process in the U.S. pursuant to which the applicant relies upon one or more investigations conducted by someone other than the applicant and for which the applicant has not obtained right of reference. In other words, the 505(b)(2) pathway enables investigators and/or manufacturers to apply for approval without having to repeat all the drug development work done for an innovator drug.

Sairiyo is advancing the pre-clinical and clinical development of cepharanthine, which is not a controlled substance. In its generic form, it has been an approved drug in Japan for over 70 years. It is used for many ailments including orally for snake bites, hair loss and malaria and by intravenous for cancer (although not extensively due to its low bioavailability). The Company has the exclusive patent to an enteric coated version that has a significantly higher bioavailability. The reformulation was developed by SwRI in Texas. The regulatory framework is that of any non-narcotic compound being developed for an FDA clinical trial.

In order to develop regulated therapies, Pharmadrug's business must be conducted in strict compliance with the regulations of federal, state, local and regulatory agencies in the U.S. These regulatory authorities regulate, among other things, the research, manufacture, promotion, and distribution of drugs in specific jurisdictions under applicable laws and regulations.

The regulatory approval process is generally lengthy and expensive, with no guarantee of a positive result. Failure to comply with applicable regulatory authorities or other requirements may result in civil or criminal penalties, recall or seizure of products, injunctive relief including partial or total suspension of production, or withdrawal of a product from the market.

The FDA and other federal, state, local and foreign regulatory agencies impose substantial requirements upon the clinical development, approval, labeling, manufacture, marketing, and distribution of drug products. These agencies regulate, among other things, research and development activities and the testing, approval, manufacture, quality control, safety, effectiveness, labeling, storage, record keeping, advertising and promotion of any product candidates or commercial products. The Company has already had a Type B Pre-IND meeting with written responses from the FDA (see "Business Overview" for more details) regarding its clinical development of PD-001. The Company was in the process of preparing an IND application, but has decided to seek the potential to first conduct a study in Australia (See "Outlook & Plans" for more details).

DMT

DMT is strictly controlled under the Controlled Substances Act (21 U.S.C. § 811) (the "CSA") as a Schedule I substance. Schedule I substances by definition have no currently accepted medical use in the U.S., a lack of accepted safety for use under medical supervision, and a high potential for abuse. Schedule I and II drugs are subject to the strictest controls under the CSA, including manufacturing and

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procurement quotas, security requirements and criteria for importation. Anyone wishing to conduct research on substances listed in Schedule I under the CSA must register with the U.S. Drug Enforcement Administration ("DEA") and obtain DEA approval of the research proposal.

The CSA and its implementing regulations establish a "closed system" of regulations for controlled substances. The CSA imposes registration, security, recordkeeping and reporting, storage, manufacturing, distribution, importation, and other requirements under the oversight of the DEA. The DEA is responsible for regulating controlled substances, and requires those individuals or entities that manufacture, import, export, distribute, research, or dispense controlled substances to comply with the regulatory requirements in order to prevent the diversion of controlled substances to illicit channels of commerce.

Facilities that manufacture, distribute, import, or export any controlled substance must register annually with the DEA. The DEA registration is specific to the particular location, activity(ies) and controlled substance schedule(s). The DEA inspects all manufacturing facilities to review security, recordkeeping, reporting and handling prior to issuing a controlled substance registration. The specific security requirements vary by the type of business activity and the schedule and quantity of controlled substances handled. The most stringent requirements apply to manufacturers of Schedule I and Schedule II substances. Required security measures commonly include background checks on employees and physical control of controlled substances through storage in approved vaults, safes, and cages, and through use of alarm systems and surveillance cameras. Once registered, manufacturing facilities must maintain records documenting the manufacture, receipt, and distribution of all controlled substances. Manufacturers must submit periodic reports to the DEA of the distribution of Schedule I and II controlled substances, Schedule III narcotic substances, and other designated substances. Registrants must also report any controlled substance thefts or significant losses, and must obtain authorization to destroy or dispose of controlled substances. Imports of Schedule I and II controlled substances for commercial purposes are generally restricted to substances not already available from a domestic supplier or where there is not adequate competition among domestic suppliers. In addition to an importer or exporter registration, importers and exporters must obtain a permit for every import or export of a Schedule I and II substance or Schedule III, IV and V narcotic, and submit import or export declarations for Schedule III, IV and V non-narcotics.

For drugs manufactured in the U.S., the DEA establishes annually an aggregate quota for the amount of substances within Schedules I and II that may be manufactured or produced in the U.S. based on the DEA's estimate of the quantity needed to meet legitimate medical, scientific, research and industrial needs. The quotas apply equally to the manufacturing of the API and production of dosage forms. The DEA may adjust aggregate production quotas a few times per year, and individual manufacturing or procurement quotas from time to time during the year, although the DEA has substantial discretion in whether or not to make such adjustments for individual companies.

Individual U.S. states also establish and maintain separate controlled substance laws and regulations, including licensing, recordkeeping, security, distribution, and dispensing requirements. State authorities, including boards of pharmacy, regulate use of controlled substances in each state. Failure to maintain compliance with applicable requirements, particularly as manifested in the loss or diversion of controlled substances, can result in enforcement action. The DEA may seek civil penalties, refuse to renew necessary registrations, or initiate proceedings to revoke those registrations. In certain circumstances, violations could lead to criminal prosecution.

As part of its pharmaceutical psychedelic research efforts, the Company is also actively engaged in conducting research on DMT. Sponsored research is being conducted at UofM. This is for endogenous DMT, i.e. naturally produced in the body. There is no DMT or psychedelic or narcotic used in this study.

Pharmadrug also sponsors R&D activities focused on DMT and two undisclosed analogues of DMT (tryptamine family members). As it relates to the tryptamine programs, all of the R&D is conducted at either JHU (Baltimore, MD) or TIBI (Los Angeles, CA). Both institutions have the authority and legal right to perform all work currently underway on Pharmadrug's R&D programs.

JHU is currently working on an IND submission to the FDA. JHU is licensed by the DEA to possess and conduct research on DMT. TIBI are conducting research to develop an ocular medical device that can continuously and slowly release a reformulated DMT or DMT analogue to reduce intraocular pressure. The R&D activities conducted by TIBI are on two undisclosed tryptamine molecules. One of the candidate molecules is a schedule I material and the other is not scheduled in the U.S. For the single schedule I candidate tryptamine, TIBI has secured a controlled substance/regulated chemical registration certificate. Under the terms of the agreements with JHU and TIBI, these institutes are responsible for obtaining all necessary consents, approvals, and authorizations of all governmental authorities and other persons required in connection with the execution, delivery, and performance of the existing agreements prior to commencing work. The execution and delivery of these sponsored research agreements and the performance of each institution's obligations do not conflict with or violate any requirement of applicable laws or regulations. The Company has not sourced DMT or DMT analogues, nor does it make available for sale DMT or DMT analogues as it is not licensed to do so. The institutions where the Company sponsors R&D, have sourced these materials under their own licenses and institutional obligations.

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The Company has an exclusive license for all fields of use to U.S. patent I0,576,077 B2. Based on recently generated data in the oncology space which examined the efficacy of Cepharranthine-2HCL alone and in combination with SoC chemotherapeutic agents, the Company has sought advice on filing a provisional patent. A provisional patent was filed to capture claims related to these findings in Q1 2022.

Neither the Company nor any of its subsidiaries are engaged in cannabis operations in the U.S.

Compliance Program

The Company oversees and monitors compliance with applicable laws in each jurisdiction in which it operates. In addition to the Company's senior executives and the employees responsible for overseeing compliance, the Company has local counsel engaged in every jurisdiction in which it operates and has received legal opinions or advice in each of these jurisdictions regarding (a) compliance with applicable regulatory frameworks, and (b) potential exposure to, and implications arising from, applicable laws in jurisdictions in which the Company has operations or intends to operate.

The Company works with third parties who require regulatory licensing to handle scheduled drugs. The Company continuously updates its compliance and channel programs to maintain regulatory standards set for drug development. The Company also works with clinical research organizations who maintain batch records and data storage for the Company's pre-clinical programs.

In conjunction with the Company's human resources and operations departments, the Company oversees and implements training on our protocols. The Company works closely with external counsel and other compliance experts, and is evaluating the engagement of one or more independent third-party providers to further develop, enhance and improve its compliance and risk management and mitigation processes and procedures in furtherance of continued compliance with the laws of the jurisdictions in which the Company operates.

The programs currently in place include monitoring by executives of the Company to ensure that operations conform to and comply with required laws, regulations, and operating procedures. The Company is currently in compliance with the laws and regulations in all jurisdictions and the related licensing framework applicable to its business activities.

The Company has material contractual relationships with three third-party research institutions. The Company is not substantially dependent on any of the contracts with such third parties. The Company and, to its knowledge, each of its third-party researchers, suppliers and manufacturers have not received any non-compliance, citations or notices of violation which may have an impact on the Company's licenses, business activities or operations.

The Company conducts due diligence on third-party researchers, medical professionals, clinics, and others as applicable, with whom it engages. Such due diligence includes but is not limited to the review of necessary licenses and the regulatory framework enacted in the jurisdiction of operation. Further, the Company generally obtains, under its contractual arrangements, representations, and warranties from such third parties pertaining to compliance with applicable licensing requirements and the regulatory framework enacted in the jurisdiction of operation.

Research and Development Projects

The following description of the various R&D projects relates to the expenditures made during the year ended December 31, 2022:

On March 1, 2021, the Company and UofM entered into a research agreement (the "Research Agreement"). The objective of the Research Agreement is to understand the mechanisms that regulate the synthesis of endogenous DMT and the potential roles of endogenous DMT in normal, diseased, and altered states of consciousness in a newly created animal model, in order to develop novel therapeutic strategies that can be translatable and clinically relevant. Pursuant to the Research Agreement, it is agreed that the total fixed price costs payable to UoM is USD \$254,452. During the year ended December 31, 2022, a total of USD \$27,566 (CAD \$36,889) (2021 – USD \$199,321 (CAD \$255,972)) had been paid to UofM in relation to the work performed.

On April 15, 2021, the Company and SwRI entered into a contract for services (a "Service Contract"), to initiate non-clinical and clinical manufacturing of cepharanthine for the Company's rare cancer and infectious diseases programs. Pursuant to the amended Service Contract, the total fixed cost payable to SwRI is USD \$379,948. During the year ended December 31, 2022, a total of USD \$282,109 (CAD \$372,927) (2021 – USD \$67,783 (CAD \$86,348)) had been paid to SwRI in relation to work done and other expenses incurred. During Q1 2023, the Company incurred additional R&D work of USD \$10,000 (CAD \$12,840) in relation to the Service Contract.

On August 4, 2021, the Company and TIBI entered into a sponsored research agreement (the "Sponsored Research Agreement"). The objectives of this Sponsored Research Agreement are the development of in vitro cell and tissue-based assays to examine the therapeutic efficiency of APIs and the fabrication and characterization of poly (HEMA)-based contact lenses capable of loading and releasing serotonergic ligands. Pursuant to the Sponsored Research Agreement, the total estimated cost of the research program is USD \$235,129.

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During the year ended December 31, 2022, a total of USD \$20,000 (CAD \$26,411) (2021 – USD \$80,825 (CAD \$103,465)) had been paid to TIBI in relation to the work performed.

On July 9, 2021, the Company and JHU entered into an investigator-initiated clinical trial agreement (the "Clinical Trial Agreement"). The objective of the Clinical Trial Agreement is to conduct a clinical study comparing acute and enduring psychological and neural effects of DMT and an undisclosed, potentially active comparator molecule. Pursuant to the Clinical Trial Agreement, the total cost payable to JHU is USD \$53,613. During the year ended December 31, 2022, a total of USD \$26,806 (CAD \$34,472) (2021 – USD \$26,807 (CAD \$34,518)) had been paid to JHU in relation to work performed.

In 2021, the Company also contracted out research activities to Crown Biosciences, for the OmniScreen study to assess the efficacy and IC50 of selected Crown Bioscience cell lines and 2D Combination Study in CX Cell Lines. During the year ended December 31, 2022, a total of USD \$42,419 (CAD \$54,658) (2021 – USD \$57,607 (CAD \$73,465)) had been paid to Crown Biosciences in relation to work performed.

Ongoing R&D

The following summarizes Company's ongoing research relating to cepharanthine and DMT (and tryptamine analogues), and to any other products that are not at the commercial production stage:

Enteric Coated Cepharanthine Program (Drug Product Development)

The Company is engaged in basic R&D of enteric coated cepharanthine-2HCL for treatment of both oncology and infectious diseases. Currently, the cepharanthine programs are early stage and Pharmadrug does not generate any revenue from the sale of enteric coated cepharanthine-2HCL (aka, PD-001). As it relates to development of PD-001, Pharmadrug, like most early-stage life sciences and pharmaceutical companies, is focused on R&D. Any future revenue will be dependent on a number of factors, including the outcome of the Company's preclinical and non-clinical research activities, sponsored clinical trials and the receipt of all necessary regulatory approvals. To establish its business operations, the Company intends to leverage the extensive professional network of its management to identify and engage CROs, government testing facilities and academics/institutions within Canada, the U.S. and China.

With clinical trial scale manufacturing of drug substance now complete, commencement of ICH stability studies and preparation of enteric coated drug product are slated for Q3-Q4, 2023 at an estimated cost of USD \$140,000. Following submission of a Pre-IND application to the FDA, the Company received guidance related to additional studies and activities that will be required to support a successful IND filing for PD-001 for the treatment of mild-moderate SARS-CoV-2 infection. It is expected that the guidance related to the drug substance and product itself can be leveraged for an IND submission for PD-001 in alternate indications. These studies include non-clinical safety / toxicology / pharmacokinetic studies in two species, primary virology, genotox, hERG and bioanalytical development. The full cost and formal timeline for the Company to complete the preclinical and non-clinical program is currently being examined and is highly dependent on several factors that remain to be determined. For instance, the Company is currently in discussions to determine if, and to what extent, the requested information can be secured from the Japanese health authority, the jurisdiction in which cepharanthine has previously been approved.

No research is conducted directly by the Company; all research is completed by third-parties.

Enteric Coated Cepharanthine Program (oncology)

The Company is engaged in basic R&D of enteric coated cepharanthine-2HCL as an adjuvant treatment for various cancers, with the lead oncology indication currently being esophageal cancer. The application of cepharanthine as a cytotoxic agent alone, or one that improves the efficacy of approved chemotherapeutic agents when combined is well supported in the primary, peer-reviewed literature. The Company's in vitro cancer studies with PD-001 alone (60 cancer cell lines) or in combination with standard of care chemotherapeutics (23 cell lines) were completed in 2021 and information gleaned from these studies has been applied to the design and execution of two in vivo efficacy studies which examine the utility of a once daily, oral administration of PD-001 alone, or in combination with standard of care treatments for treatment prostate and esophageal cancers. Both cancer efficacy studies were successfully completed in 2022. The Company may seek to conduct further in vivo studies in 2023 to more fully understand dose response and to optimize dosing interval prior to clinical evaluation. The costs related to such studies have been estimated to be approximately USD \$110,000 and if initiated would be slated to commence in Q4 2023.

The Company's research also uses non-enteric coated cepharanthine-2HCL for its in vitro studies, as enteric coating is not relevant in an in vitro context. No research is conducted directly by the Company; all research is completed by third-party contract research organizations.

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Enteric Coated Cepharanthine Program (antiviral)

The application of cepharanthine as an antiviral to treat SARS-Cov-2 specifically, as well as more generally, coronavirus infection, is well supported in the primary, peer-reviewed literature. As it relates to development of PD-001 for SARS-CoV-2 infection, primary virology studies are currently being planned for execution in Q2, 2023. These studies will cost approximately USD \$50,000. Studies continue to demonstrate the in vitro and in vivo antiviral properties of cepharanthine on multiple coronavirus family members including family members SARS, MERS, and SARS-CoV-2 (COVID-19), however the exact origins of cepharanthine's antiviral activity remain to be determined. To best understand how, and on which viruses cepharanthine mediates its antiviral activities, and to more fully validate these independent findings the Company intends to evaluate the in vitro antiviral potency of PD-001 on a panel of coronaviruses of concern, including various SARS-CoV-2 variants. Additionally, cepharanthine has previously been shown to display potent antiviral properties against multiple viruses including ebola, zika and herpes simplex virus. Such broad-spectrum antiviral activity is quite a rare drug attribute. Consistent with this, the Company intends to more fully explore the potential for additional opportunities in the antiviral space by commissioning an in vitro study that will examine the potency of PD-001 on a broad panel of human viruses with high unmet medical needs.

Clinical Trial Updates

On the critical path to an IND filing is the production of a cGMP lot of PD-001 followed by concurrent ICH stability testing and IND-enabling safety/toxicology tests specifically required by the FDA. On January 26, 2022, the Company announced that it has started the process of producing a cGMP lot of PD-001. Work on production of the PD-001 cGMP lot has progressed well over the last three quarters. All analytical methodologies necessary to support drug substance manufacturing are now complete and a multi-kilogram lot of cGMP PD-001 is expected to be delivered to Genvion in the next few months (See "Outlook and Plans" for more details). In the meantime, the Company has three indications that it believes to be of merit for a clinical trial and will continue IND enabling preclinical work on all three: SARS-CoV-2 (Covid-19), esophageal cancer and prostate cancer. The FDA response to the Company's Pre-IND submission only required confirmatory in vitro studies in order to commence a SARS-CoV-2 (Covid-19) clinical trial. The Company has now completed two IND-enabling animal studies relating to the treatment for prostate cancer and esophageal cancer with final results disclosed in its April 19, 2022 press release and June 16, 2022. Esophageal cancer currently represents a significant unmet medical need, with only 20% of patients surviving more five years post diagnosis. The Company previously received Orphan Drug Designation from the FDA for PD-001 for the treatment of esophageal cancer and remains encourage by the positive outcome of their recent preclinical study demonstrating that PD-001, when delivered with standard of care chemotherapy, provided significant reduction in tumor growth.

DMT Analogues Program: Novel Treatment of Primary Open Angle Glaucoma

The Company is engaged in basic R&D of psychedelic tryptamines for the potential treatment of POAG. Currently the Company, under a sponsored research agreement with TIBI, is evaluating the potential utility of tryptamine-based drug candidates using in vitro model systems designed to model the hemodynamic response present in the outflow tract of human eyes that display intraocular pressure dysregulation (aka glaucoma). Based on considerations related to physiochemical properties, resistance to metabolic breakdown and anticipated downstream formulation requirements, the Company selected six lead candidate molecules. Following successful in vitro efficacy studies, the Company was then able to elect its final lead formulation. The Company also announced in a press release dated April 7, 2022, that in collaboration with TIBI, it has successfully completed fabrication of a novel medical device capable of delivering sustained, low (sub-psychedelic) quantities of their undisclosed tryptamine-based pharmaceutical to the front of the eye; the intended purpose of which is to potentially lower intraocular pressure (IOP) in patients suffering from glaucoma. A provisional patent application, detailing the novel and superior aspects of the lead compound and medical device is planned, but been put on hold. All downstream development efforts for the Company's tryptamine program in POAG will focus on the newly elected lead molecule. The next phase will focus on further characterizing the drug's mechanism of action and identifying suitable animal efficacy models and contract research facilities where the Company will commission an IND enabling efficacy study to evaluate the extent of symptom resolution (intraocular hypertension). The Company believes it is in position from an in vitro efficacy standpoint to conduct necessary animal studies but will wait for capital market conditions in the psychedelic sector to improve so the Company can raise an adequate amount of capital. The animal study design is still being evaluated, but is expected to cost USD \$300,000. The intention will be to submit a primary scientific manuscript and to file for provisional patent(s). The ultimate goal is to bring the product to the FDA in the form of a Pre-IND application for the purpose of charting a smooth path towards a future clinical trial.

Phase I Safety, Tolerability and Comparison Study of N,N-Dimethyltryptamine (DMT) and an Undisclosed Acute Acting Psychedelic in Healthy Volunteers

The Company has entered into a Clinical Trial Agreement with JHU to conduct a clinical study comparing acute and enduring psychological and neural effects of N,N-Dimethyltryptamine (DMT) and an undisclosed, potently active comparator molecule. The principal investigator, Dr. Frederick S. Barrett, PhD, Associate Professor of Psychiatry and Behavioral Sciences, will be supported by Co-investigators Dr. Sandeep Nayak and Dr. Roland Griffiths; all from the JHU Center for Psychedelic and Consciousness Research. An IND application and related IRB application was drafted in Q4,2022 to support the proposed study, but the Company has decided to delay the submission until the capital markets improve, specifically in pharmaceutical psychedelics sector, so that the Company has the ability to appropriately fund such

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a study. In parallel re-testing and certification of the clinical trial test article is currently underway. The first part of the planned study will examine dose effects of DMT and the other test article. During the second part of the study, healthy subjects will be exposed to a maximum tolerated dose of each drug (as defined in part I of the study). During both parts of the study, investigators will carefully characterize any acute and persisting subjective, affective, cognitive, and neural dose-dependent effects for both drugs being evaluated. The clinical study is proposed to take place over a 3-year period and to include up to a year of data analysis thereafter. Employing an extensive battery of psychological assessment tools, coupled with state-of-the-art functional MRI and EEG the JHU researchers endeavor to develop a more fulsome understanding of how DMT acts in the brain of healthy volunteers; with the ultimate goal of being able to apply this knowledge in tailoring the treatment of serious neuropsychiatric conditions. The estimated total cost of the agreed upon studies is USD \$3,442,000 (excluding cost of clinical drug supply) and is slated to be complete 3 years after commencement. The Company is currently seeking quotations from CDMOs related to the cost of cGMP N,N-dimethyltryptamine to support the planned study.

Insider Trading Policy and Code of Ethics and Business Conduct

Insider Trading Policy

The Company has adopted an insider trading policy to set forth basic guidelines for trading in the Company's securities (including, without limitation, its Common Shares) to avoid any situation that might have the potential to damage the Company's reputation or which could constitute a violation of federal or provincial securities law by the Company, its officers, directors, employees, consultants, affiliates, and certain family members of such individuals ("Insiders"). Under this policy, Insiders are prohibited from trading in Common Shares and other securities on the basis of material, non-public information relating to the Company until after the information has been disclosed to the public or during a blackout period.

The obligation not to trade on inside information applies not only to the Insiders, but also to persons who obtain such information from Insiders and use it to their advantage. Thus, liability may be imposed upon the Company, its Insiders and also outsiders who are the source of leaks of material information not yet disclosed to the public and the leaks coincide with purchases or sales of the Company's securities by such insiders, outsiders or by "tippees"

In order to provide a degree of certainty as to when insider trading is permissible, the policy imposes mandatory blackout periods during the period commencing on the first day following the end of each fiscal quarter or year-end and ending at the close of business on the second trading day following the dissemination by the Company of such quarterly and annual results. In addition, no Insider is permitted to trade any securities of the Company until two trading days after the issuance of any news release in which material information is released to the public. The Company may, from time to time, issue a general blackout period for a specific or indefinite period covering Insiders or specific employees or groups.

Code of Business Conduct

The Company has adopted a Code of Business Conduct (the "Code"). The Code sets forth standards designed to reasonably: deter wrongdoing, promote honest and ethical conduct, promote prompt internal reporting of violations of the Code and promote accountability. All personnel, in discharging their duties, must comply with applicable laws and regulations, the rules of the stock exchange(s) on which the Common Shares are listed as well as the Company's internal policies.

The Code sets the expectation that personnel learn about laws, rules and regulations that affect what they do at the Company, and raise any questions concerning the applicability, existence or interpretation of any law or regulation or conduct with their supervisor or the legal department of the Company. The Code prohibits personnel from making or participating in making any payments designed to cause or improperly influence the decisions of an individual, a company or a governmental official to act in a way that gives the Company or its personnel an advantage or soliciting, encouraging, or actually receiving any bribe or other payment, contribution, gifts, or favor that could influence your or another's decision.

The Code encourages personnel to report any actual or suspected fraud or securities law violations to the Chief Compliance Officer. The Code mandates a safe work environment and a no tolerance policy towards harassment and violence in the workplace. The Code provides guidance on avoiding conflicts of interest and acting in the best interest of the Company.

Disclosure Policy

The Company has adopted a corporate disclosure policy the objective of which is to ensure that the communications of the Company with the public are (i) timely, factual, and accurate, and (ii) broadly disseminated in accordance with all applicable legal and regulatory requirements.

The disclosure policy documents the disclosure policies and practices of the Company and aims to promote an understanding of the legal requirements among the Company's directors, officers, and employees. This policy is also intended to assist any director or officer of the

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Company in the conduct of the reasonable investigation required to provide a defence to any action against such director or officer based on a misrepresentation or failure to make timely disclosure. The disclosure policy extends to all directors, officers, and employees of the Company, those authorized to speak on its behalf and all other insiders and covers all disclosure, including disclosure made in:

- all statutorily mandated documents filed with securities regulators.
- all written statements made in non-mandated documents such as letters to shareholders, presentations by senior management and information contained on the Company's website and in other electronic communications.
- all oral statements including oral statements made in meetings and telephone conversations with analysts and investors, interviews with the media as well as speeches, press conferences and conference calls.
- any other communication, the content of which would reasonably be expected to effect the market value or price of any security of the Company.

Risk Factors

The Company faces exposure to risk factors and uncertainties relating to its business that could significantly negatively impact its operations and financial results. Additional risks and uncertainties not presently known to Pharmadrug or currently deemed immaterial by Pharmadrug may also impair the Company's operations. If any such risks actually occur, shareholders of the Company could lose all or part of their investment and the business, financial condition, liquidity, results of operations and prospects of the Company could also be materially adversely affected and the ability of the Company to implement its growth plans could be adversely affected. The following is a summary of risks that could be applicable to the business of the Company:

Regulatory Risks and Uncertainties

In Canada, certain psychedelic drugs are classified as Schedule III drugs under the CSA and as such, medical and recreational use is illegal under Canadian federal laws. In the U.S., certain psychedelic drugs, including psilocybin, are classified as Schedule I drugs under the CSA and the Controlled Substances Import and Export Act and as such, medical and recreational use is illegal under the U.S. federal laws. There is no guarantee that psychedelic drugs or psychedelic inspired drugs will ever be approved as medicines in any jurisdiction in which the Company operates. All activities involving such substances by or on behalf of the Company are conducted in accordance with applicable federal, provincial, state, and local laws. Further, all facilities engaged with such substances by or on behalf of the Company do so under current licenses and permits issued by appropriate federal, provincial, and local governmental agencies. While the Company is focused on programs using psychedelic inspired compounds, it does not have any direct or indirect involvement with the illegal selling, production, or distribution of any substances in the jurisdictions in which it operates and does not intend to have any such involvement. However, the laws and regulations generally applicable to the industry in which the Company is involved in may change in ways currently unforeseen. Any amendment to or replacement of existing laws or regulations, including the classification or re-classification of the substances the Company is developing or working with, which are matters beyond the Company's control, may cause the Company's business, financial condition, results of operations and prospects to be adversely affected or may cause the Company to incur significant costs in complying with such changes or it maybe unable to comply there with. A violation of any applicable laws and regulations of the jurisdictions in which the Company operates could result in significant fines, penalties, administrative sanctions, convictions, or settlements arising from civil proceedings initiated by either government entities in the jurisdictions in which the Company operates, or private citizens or criminal charges.

The loss of the necessary licenses and permits could have an adverse effect on the Company's operations. The psychedelic drug industry is a fairly new industry, and the Company cannot predict the impact of the ever-evolving compliance regime in respect of this industry. Similarly, the Company cannot predict the time required to secure all appropriate regulatory approvals for future products, or the extent of testing and documentation that may, from time to time, be required by governmental authorities. The impact of compliance regimes, any delays in obtaining, or failure to obtain regulatory approvals may significantly delay or impact the development of markets, its business and products, and sales initiatives and could have a material adverse effect on the business, financial condition, and operating results of the Company.

The Company makes no medical, treatment or health benefit claims about the Company's proposed products. The FDA, Health Canada or other similar regulatory authorities have not evaluated claims regarding DMT. The efficacy of such products has not been confirmed by approved research. There is no assurance that the use of DMT can diagnose, treat, cure, or prevent any disease or condition. Vigorous scientific research and clinical trials are needed.

Need for Additional Financing

The capital raised by the Company to date is insufficient to meet its presently anticipated working capital requirements and capital expenditure commitments for the near future. The Company needs to raise significant additional funds sooner to support its international growth strategy, develop new or enhanced services and products, respond to competitive pressures, acquire, or invest in complementary or competitive businesses or technologies, or take advantage of unanticipated opportunities. The Company cannot be sure that additional

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financing will be available on acceptable terms or at all. Furthermore, any debt financing, if available, may involve restrictive covenants, which may limit Pharmadrug's operating flexibility with respect to business matters. As additional funds are raised through the issuance of equity securities, the percentage ownership of existing shareholders will be reduced; such shareholders may experience additional dilution in net book value; and such equity securities may have rights, preferences, or privileges senior to those of its existing shareholders. If adequate funds are not available on acceptable terms or at all, the Company may be unable to develop or enhance its services and products, take advantage of future opportunities, repay debt obligations as they become due, or respond to competitive pressures, any of which could have a material adverse effect on its business, prospects, financial condition, and results of operations.

Volatile Financial and Economic Conditions

Current financial and economic conditions remain extremely volatile. Access to public and private capital and financing continues to be negatively impacted by many factors, which may impact the Company's ability to obtain financing in the future on favorable terms or obtain any financing at all. Additionally, global conditions may cause a long-term decrease in asset values. If such volatility and market turmoil continue, the Company's operations and financial condition could be adversely impacted.

Non-Compliance with Laws and Regulations

Non-compliance with federal, provincial or state laws and regulations, or the expansion of current or enactment of new laws or regulations, could adversely affect the Company's business in the U.S., and elsewhere it operates or invests. Achievement of the Company's business objectives are contingent, in part, upon compliance with regulatory requirements enacted by these governmental authorities and obtaining all regulatory approvals, where necessary, for the carrying on of business of Pharmadrug. The Company cannot predict the time required to secure all appropriate regulatory approvals for its business or other businesses in which the Company invests, or the extent of testing and documentation that may be required by governmental authorities. Any delays in obtaining, or failure to obtain regulatory approvals would significantly delay the development of markets and products and could have a material adverse effect on the business, results of operations and financial condition of the Company.

There can be no assurances the federal government of jurisdictions where the Company has operations will not seek to enforce applicable laws against Pharmadrug. The consequences of such enforcement would likely be materially detrimental to the Company and the businesses in which the Company invests, and could result in the forfeiture or seizure of all or substantially all of the Company's assets.

Environmental and Employee Health and Safety Regulations

The Company's operations are subject to environmental and safety laws and regulations concerning, among other things, emissions and discharges to water, air and land, the handling and disposal of hazardous and non-hazardous materials and wastes, and employee health and safety. The Company will incur ongoing costs and obligations related to compliance with environmental and employee health and safety matters. Failure to comply with environmental and safety laws and regulations may result in additional costs for corrective measures, penalties or in restrictions on the Company's operations. In addition, changes in environmental, employee health and safety or other laws, more vigorous enforcement thereof or other unanticipated events could require extensive changes to the Company's operations or give rise to material liabilities, which could have a material adverse effect on the business, results of operations and financial condition of the Company.

Risks Associated with Increasing Competition

The drug development industry is highly competitive. The Company will compete with numerous other businesses in the medicinal research industry, many of which possess greater financial and marketing resources and other resources than the Company. The Company also expects to face additional competition from new entrants, and the Company expects that competition will become more intense, as current, and future competitors begin to offer an increasing number of diversified products.

To remain competitive, the Company will require a continued high level of investment in acquisitions and investments, research and development, and marketing. The Company may not have sufficient resources to maintain such activities on a competitive basis which could adversely affect the business, financial condition, and results of operations the Company.

Success of New and Existing Products and Services is Uncertain

The Company expects to commit significant resources and capital to develop and market existing and new products, services, and enhancements. These products and services are relatively untested, and the Company cannot provide any assurance that it will achieve market acceptance for these products and services, or other new products and services that it may offer in the future. Moreover, these and other new products and services may face significant competition with new and existing competitors. In addition, new products, services, and enhancements may pose a variety of technical challenges and require the Company to attract additional qualified employees. The failure to successfully develop and market these new products, services or enhancements could seriously harm the Company's business, financial condition, and results of operations. Moreover, if the Company fails to accurately project demand for our new or existing products, it may

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encounter problems of overproduction or underproduction which would materially and adversely affect its business, financial condition, and results of operations, as well as damage our reputation and brand.

New Well-Capitalized Entrants May Develop Large-Scale Operations

The Company's proposed business plan is subject to all business risks associated with new business enterprises, including the absence of any significant operating history upon which to evaluate an investment. The likelihood of the Company's success must be considered in light of the problems, expenses, difficulties, complications, and delays frequently encountered in connection with the formation of a new business, the development of new strategy and the competitive environment in which the Company operates. It is possible that the Company will incur losses in the future. There is no guarantee that the Company will be profitable.

No Assurance of Commercial Success

The successful commercialization of the Company's products will depend on many factors, including, the Company's ability to establish and maintain working partnerships with industry participants in order to market its products, the Company's ability to supply a sufficient amount of its products to meet market demand, and the number of competitors within each jurisdiction within which the Company may from time to time be engaged. There can be no assurance that the Company or its industry partners will be successful in their respective efforts to develop and implement, or assist the in developing and implementing, a commercialization strategy for the Company's products.

Achieving Publicly Announced Milestones

From time to time, the Company may announce the timing of certain events it expects to occur, such as the anticipated timing of results from clinical trials. These statements are forward-looking and are based on the best estimates of management at the time relating to the occurrence of such events. However, the actual timing of such events may differ from what has been publicly disclosed. The timing of events such as initiation or completion of a clinical trial, filing of an application to obtain regulatory approval, or announcement of additional clinical trials for cepharanthine may ultimately vary from what is publicly disclosed. The Company undertakes no obligation to update or revise any forward-looking information or statements, whether as a result of new information, future events or otherwise, except as otherwise required by law. Any variation in the timing of previously announced milestones could have a material adverse effect on the Company's business plan, financial condition or operating results and the trading price of the common shares.

Early Stage of the Industry and Product Development

Given the early stage of its R&D activities on cepharanthine, the Company can make no assurance that its R&D programs will result in regulatory approval or commercially viable products. To achieve profitable operations, the Company, alone or with others, must successfully develop, gain regulatory approval for, and market its future products. The Company currently has no products that have been approved by the FDA, or any similar regulatory authority. To obtain regulatory approvals for its drug product candidates being developed and to achieve commercial success, clinical trials must demonstrate that the drug product candidates are safe for human use and that they demonstrate efficacy.

Many drug product candidates never reach the stage of clinical testing and even those that do have only a small chance of successfully completing clinical development and gaining regulatory approval. Such product candidates can fail for a number of reasons, including, but not limited to, being unsafe for human use or due to the failure to provide therapeutic benefits equal to or better than the standard of treatment at the time of testing. Unsatisfactory results obtained from a particular study relating to a R&D program may cause the Company or its collaborators to abandon commitments to that program. Positive results of early pre-clinical research may not be indicative of the results that will be obtained in later stages of pre-clinical or clinical research. Similarly, positive results from early-stage clinical trials may not be indicative of favorable outcomes in later-stage clinical trials, and the Company can make no assurance that any future studies, if undertaken, will yield favorable results.

The early stage of the Company's product development makes it particularly uncertain whether any of its product development efforts will prove to be successful and meet applicable regulatory requirements, and whether any of its drug product candidates will receive the requisite regulatory approvals, be capable of being manufactured at a reasonable cost or be successfully marketed. If the Company is successful in developing its current and future drug product candidates into approved products, it will still experience many potential obstacles, which would affect its ability to successfully market and commercialize such approved products, such as the need to develop or obtain manufacturing, marketing and distribution capabilities, price pressures from third-party payors, or proposed changes in health care systems. If the Company is unable to successfully market and commercialize any of its products, its financial condition and results of operations may be materially and adversely affected.

The Company can make no assurance that any future studies, if undertaken, will yield favorable results. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in later-stage clinical trials after achieving positive results in

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early-stage development, and the Company cannot be certain that it will not face similar setbacks. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway or safety or efficacy observations made in clinical trials, including previously unreported adverse events. Moreover, preclinical, and clinical data are often susceptible to varying interpretations and analyses, and many companies that believed their drug product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA approval. If the Company fails to produce positive results in future clinical trials and other programs, the development timeline and regulatory approval and commercialization prospects for DMT, and, correspondingly, its business and financial prospects, would be materially adversely affected.

Pre-clinical testing and clinical trials for the Company's products may not achieve the desired results. The results of pre-clinical testing and clinical trials are uncertain. Product approvals are subject to a number of contingencies and may not be obtained in the time expected or at all. The Company's future products may not attract a following among patients, retailers and/or providers. The Company expects to face an inherent risk of exposure to product liability claims, regulatory action, and litigation if the products it plans to distribute are alleged to have caused loss or injury. There can be no assurance that the Company will be able to obtain or maintain product liability insurance on acceptable terms or with adequate coverage against potential liabilities.

Reliance on Third Parties for Clinical Development Activities

The Company relies and will continue to rely on third parties to conduct a significant portion of its pre-clinical and clinical development activities. For example, clinical development activities include trial design, regulatory submissions, clinical patient recruitment, clinical trial monitoring, clinical data management and analysis, safety monitoring and project management. If there is any dispute or disruption in its relationship with third parties, or if it is unable to provide quality services in a timely manner and at a feasible cost, the Company's active development programs will face delays. Further, if any of these third parties fails to perform as the Company expects or if their work fails to meet regulatory requirements, the Company's testing could be delayed, cancelled, or rendered ineffective.

Certain lab testing relating to cepharanthine is conducted at a facility in China operated by Crown Bioscience. Although Crown Bioscience is a U.S. based company, where any operations are conducted in emerging markets there is a heightened risk, both political and regulatory, associated with such activities. Any delays in testing resulting from such activity being conducted in such jurisdictions could result in adverse impacts on the Company.

Clinical Testing and Commercializing Products

Before obtaining marketing approval from regulatory authorities for the commercialization of DMT, the Company must conduct pre-clinical studies in animals and extensive clinical trials in humans to demonstrate the safety and efficacy of the drug product candidates. Clinical testing is expensive and difficult to design and implement, can take many years to complete and has uncertain outcomes. The outcome of pre-clinical studies and early clinical trials may not predict the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety profiles, notwithstanding promising results in earlier trials. The Company does not know whether the clinical trials it may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market any of its drug product candidates in any jurisdiction. A drug product candidate may fail for safety or efficacy reasons at any stage of the testing process. A major risk the Company faces is the possibility that none of its drug product candidates under development will successfully gain market approval from the FDA, or other regulatory authorities, resulting in the Company being unable to derive any commercial revenue from this business segment after investing significant amounts of capital in its development.

The Company cannot predict whether any clinical trials will begin as planned, will need to be restructured, or will be completed on schedule, or at all. The Company's product development costs will increase if it experiences delays in clinical testing. Significant clinical trial delays could shorten any periods during which the Company may have the exclusive right to commercialize its drug product candidates or allow its competitors to bring products to market before the Company, which would impair the Company's ability to successfully commercialize its drug product candidates and may harm its financial condition, results of operations and prospects.

Completion of Clinical Trials

As the Company's drug product candidates advance from pre-clinical testing to clinical testing, and then through progressively larger and more complex clinical trials, the Company will need to enroll an increasing number of patients that meet its eligibility criteria. There is significant competition for recruiting patients in clinical trials, and the Company may be unable to enroll the patients it needs to complete clinical trials on a timely basis or at all. The factors that affect the Company's ability to enroll patients are largely uncontrollable and include, but are not limited to, the size and nature of the patient population, eligibility and exclusion criteria for the trial, design of the clinical trial, competition with other companies for clinical sites or patients, perceived risks and benefits of the drug product candidate, and the number, availability, location, and accessibility of clinical trial sites.

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Nature of Regulatory Approvals

Certain of the Company's development and commercialization activities and drug product candidates are significantly regulated by a number of governmental entities, including the FDA. Regulatory approvals are required prior to each clinical trial and the Company may fail to obtain the necessary approvals to commence or continue clinical testing. The Company must comply with regulations concerning the manufacture, testing, safety, effectiveness, labeling, documentation, advertising, and sale of products and drug product candidates and ultimately must obtain regulatory approval before it can commercialize a drug product candidate. The time required to obtain approval by such regulatory authorities is unpredictable but typically takes many years following the commencement of preclinical studies and clinical trials. Any analysis of data from clinical activities the Company performs is subject to confirmation and interpretation by regulatory authorities, which could delay, limit, or prevent regulatory approval. Even if the Company believes results from its sponsored clinical trials are favorable to support the marketing of its drug product candidates, the FDA or other regulatory authorities may disagree. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a drug product candidate's clinical development and may vary among jurisdictions.

The Company has not obtained regulatory approval for any drug product candidate and it is possible that none of its existing drug product candidates or any future drug product candidates will ever obtain regulatory approval. The Company could fail to receive regulatory approval for its drug product candidates for many reasons, including, but not limited to failure to demonstrate that a drug product candidate is safe and effective for its proposed indication, failure of clinical trials to meet the level of statistical significance required for approval, failure to demonstrate that a drug product candidate's clinical and other benefits outweigh its safety risks.

A regulatory authority may require more information, including additional preclinical or clinical data to support approval, which may delay or prevent approval and the Company's commercialization plans, or the Company may decide to abandon the development program. If the Company were to obtain approval, regulatory authorities may approve any of its drug product candidates for fewer or more limited indications than the Company request, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a drug product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that drug product candidate. Moreover, depending on any safety issues associated with the Company's drug product candidates that garner approval, the U.S. Food and Drug Administration or other regulatory authorities may impose a risk evaluation and mitigation strategy, thereby imposing certain restrictions on the sale and marketability of such products.

If there are changes in the application of legislation, regulations, or regulatory policies, or if problems are discovered with the Company's products, or if one of its distributors, licensees, or co-marketers, if any, fails to comply with regulatory requirements, the regulators could take various actions. These include imposing fines on the Company, imposing restrictions on the Company's products or its manufacture and requiring the Company to recall or remove its products from the market. The regulators could also suspend or withdraw the Company's marketing authorizations, requiring it to conduct additional clinical trials, change its labeling or submit additional applications for marketing authorization. If any of these events occurs, the Company's ability to sell its products may be impaired, and it may incur substantial additional expense to comply with regulatory requirements, which could materially adversely affect its business, financial condition, and results of operations.

Negative Results of External Clinical Trials or Studies

From time to time, studies, or clinical trials on various aspects of biopharmaceutical products are conducted by academic researchers, competitors, or others. The results of these studies or trials, when published, may have a significant effect on the market for the biopharmaceutical product that is the subject of the study. The publication of negative results of studies or clinical trials or adverse safety events related to the Company's drug product candidates, or the therapeutic areas in which the Company's drug product candidates compete, could adversely affect its share price and the Company's ability to finance future development of its drug product candidates, and its business and financial results could be materially and adversely affected.

Liability, Enforcement Complaints, etc.

As a company engaged in territories outside of Canada, the Company may from time to time become subject to litigation, formal or informal complaints, enforcement actions, and inquiries, including by one or more federal or local governmental authorities. Any such litigation, complaints, and/or enforcement actions involving the Company and its subsidiaries could consume a considerable amount of financial and other corporate resources and the time of management and could have a material adverse effect on the Company.

Foreign Operations

Through operations from the U.S. and Europe (and previously through Pharmadrug Production in Germany), the Company may be subject to political, economic and other uncertainties, including, but not limited to, cancellation or modification of contract rights, foreign exchange restrictions, currency fluctuations, export quotas, royalty and tax increases and other risks arising out of foreign governmental sovereignty

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over the areas in which the Company's operations are conducted, as well as risks of loss due to civil strife, acts of war, and insurrections. The Company's international operations may also be adversely affected by laws and policies of Canada affecting foreign trade, taxation, and investment. In the event of a dispute arising in connection with its foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada or enforcing Canadian judgments in foreign jurisdictions. Similarly, to the extent that the Company's assets are located outside of Canada, investors may have difficulty collecting from the Company any judgments obtained in the Canadian courts and predicated on the civil liability provisions of securities laws. Consequently, investors may be effectively prevented from pursuing remedies against the Company under Canadian securities laws or otherwise. The Company may also be hindered or prevented from enforcing its rights with respect to a governmental entity or instrumentality because of the doctrine of sovereign immunity.

Factors which may Prevent Realization of Growth Targets

In continuing with the Company's operations, there is a risk that the additional resources will be needed, and milestones will not be achieved on time, on budget, or at all, as they can be adversely affected by a variety of factors, including some that are discussed elsewhere in these risk factors and the following as it relates to the Company:

- delays in obtaining, or conditions imposed by, regulatory approvals.
- environmental pollution.
- non-performance by third party contractors.
- increases in materials or labour costs.
- construction performance falling below expected levels of output or efficiency.
- breakdown, aging or failure of equipment or processes.
- contractor or operator errors.
- labour disputes, disruptions or declines in productivity.
- inability to attract sufficient numbers of qualified workers.
- disruption in the supply of energy and utilities; and
- major incidents and/or catastrophic events such as fires, explosions, earthquakes, or storms.

Reliance on Management and Advisory Board

The Company will need to expand and effectively manage its managerial, operational, financial, development and other resources in order to successfully pursue its development and commercialization efforts of its products. The success of the Company is currently dependent on the performance of its management team, which also relies on advice and guidance of certain members of the Board and Advisory Board, not all of whom are or will be bound by formal contractual employment agreements.

The Company's success depends on its continued ability to attract, retain, and motivate highly qualified people. The loss of the services of these persons would have a material adverse effect on the Company's business and prospects in the short term and could delay or prevent the commercialization of its products, and the business may be harmed as a result. The Company may not be able to attract or retain qualified management and scientific personnel in the future due to the intense competition for qualified personnel with extensive management experience in such fields as pharmaceutical regulations, finance, manufacturing, marketing, law, and investment. If the Company is not able to attract and retain the necessary personnel to accomplish its business objectives, the achievement of its development objectives, its ability to raise additional capital and its ability to implement its business strategy may be significantly reduced and could have a material adverse effect on the Company and its prospects.

Reliance on Third-Party Service Providers

Third party service providers to the Company may withdraw or suspend their service to the Company under threat of prosecution. In jurisdictions where the possession, use, cultivation, and any related drug paraphernalia may be illegal, and any such acts are criminal acts under local, city, state and provincial law, companies that provide goods and/or services to companies engaged in activities may, under threat of federal civil and/or criminal prosecution, suspend or withdraw their services. Any suspension of service and inability to procure goods or services from an alternative source, even on a temporary basis, that causes interruptions in the Company's operations could have a material and adverse effect on the Company's business.

Insurance and Uninsured Risks

The Company's business is subject to a number of risks and hazards generally, including adverse environmental conditions, accidents, labour disputes, and changes in the regulatory environment. Such occurrences could result in damage to assets, personal injury or death, environmental damage, delays in operations, monetary losses, and possible legal liability.

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Although the Company intends to continue to maintain insurance to protect against certain risks in such amounts as it considers to be reasonable, its insurance will not cover all the potential risks associated with its operations. The Company may also be unable to maintain insurance to cover these risks at economically feasible premiums. Insurance coverage may not continue to be available or may not be adequate to cover any resulting liability. Moreover, insurance against risks such as environmental pollution or other hazards encountered in the operations of the Company is not generally available on acceptable terms. Company might also become subject to liability for pollution or other hazards which may not be insured against or which the Company may elect not to insure against because of premium costs or other reasons. Losses from these events may cause the Company to incur significant costs that could have a material adverse effect upon its financial performance and results of operations.

The Company may be underinsured and there may be difficulties with acquiring and maintaining insurance coverage in the psychedelic and R&D industry may reduce the capability of insurance to serve as a reliable and effective risk management tool. Specific insurance in such fields is still a small and specialized market. Consequently, insurance is often unattainable as it is not offered, or it is prohibitively expensive given the scarcity of actuarial data, small number of market participants, which both reduce the ability to share risk across entities. Consequently, many of the risks we face as a Company are uninsured or uninsurable, and we self-insure. Consequently, the Company will be vulnerable to low probability high impact events. If one such event, were to occur it could result in material adverse effects to the financial condition of the Company.

Dependence on Suppliers and Skilled Labor

The ability of the Company to compete and grow will be dependent on it having access, at a reasonable cost and in a timely manner, to skilled labor, equipment, parts, and components. No assurances can be given that the Company will be successful in maintaining its required supply of skilled labor, equipment, parts, and components. It is also possible that the final costs of the major equipment contemplated by the Company's capital expenditure program may be significantly greater than anticipated by the Company's management and may be greater than funds available to the Company, in which circumstance the Company may curtail, or extend the timeframes for completing, its capital expenditure plans. This could have an adverse effect on the financial results of the Company.

Management of Growth

As it continues to develop its operations, Pharmadrug may be subject to growth-related risks including capacity constraints and pressure on its internal systems and controls. The ability of the Company to manage growth effectively will require it to continue to implement and improve its operational and financial systems and to expand, train and manage its personnel base. The inability of the Company to deal with this growth may have an adverse effect on the Company's business, financial condition, results of operations and prospects.

No History of Dividends

The Company has no earnings or dividend record and does not anticipate paying any dividends on the Company's shares in the foreseeable future.

Foreign Currency Exchange Rates

Exchange rate fluctuations may adversely affect the Company's financial position and results. It is anticipated that a significant portion of the Company's business will be conducted in USD going forward. The Company's financial results are reported in CAD and costs had been incurred primarily in EUR and also in USD in its PACs. The depreciation of the CAD against the USD in the future could increase the actual capital and operating costs of the Company and materially adversely affect the results presented in the Company's consolidated financial statements.

The Market Price of Securities is Volatile and may not Accurately Reflect the Long-Term Value of the Company

Securities markets have a high level of price and volume volatility, and the market price of securities of many companies – including Pharmadrug – has experienced substantial volatility in the past. This volatility may affect the ability of holders of common shares to sell their securities at an advantageous price. Market price fluctuations in the common shares may be due to the Company's operating or financial results failing to meet expectations of investors in any period, adverse changes in general market conditions or economic trends, acquisitions, dispositions or other material public announcements by the Company or its competitors, along with a variety of additional factors. These broad market fluctuations may adversely affect the market price of Pharmadrug's common shares.

Financial markets historically at times experienced significant price and volume fluctuations that have particularly affected the market prices of equity securities of companies and that have often been unrelated to the operating performance, underlying asset values or prospects of such companies. Accordingly, the market price of Pharmadrug's shares may decline even if the Company's business performance, underlying asset values or prospects have not changed. Additionally, these factors, as well as other related factors, may cause prolonged decreases in investment values which may result in impairment losses. There can be no assurance that continuing fluctuations in price and volume will

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not occur. If such increased levels of volatility and market turmoil continue, the Company's operations could be adversely impacted, and the trading price of the shares may be materially adversely affected.

Limited Market for Securities

There can be no assurance that an active and liquid market for the Company's common shares, warrants and/or convertible debentures will develop or be maintained, and an investor may find it difficult to resell such securities.

Enforcement of Proprietary Rights

The Company may be unable to adequately protect or enforce its proprietary rights. Its continuing success will likely depend, in part, on its ability to protect internally developed or acquired, intellectual property and maintain the proprietary nature of its technology through a combination of licenses and other intellectual property arrangements, without infringing the proprietary rights of third parties. The Company cannot prove assurance that its intellectual property owned by the Company will be held valid at the foreign government level if challenged, or that other parties will not claim rights in or ownership of its proprietary rights.

Infringement or Misappropriation Claims

The Company may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to the resulting Company, could subject the Company to significant liabilities and other costs. The Company's success may likely depend on its ability to use and develop new extraction technologies, recipes, know-how without infringing the intellectual property rights of third parties. The Company cannot assure that third parties will not assert intellectual property claims against it. The Company is subject to additional risks if entities licensing to it intellectual property does not have adequate rights in any such licensed materials. If third parties assert copyright or patent infringement or violation of other intellectual property rights against the Company, it will be required to defend itself in litigation or administrative proceedings, which can be both costly and time consuming and may significantly divert the efforts and resources of management personnel. An adverse determination in any such litigation or proceedings to which the Company may become a party could subject it to significant liability to third parties, require it to seek licenses from third parties, to pay ongoing royalties or subject the Company to injunctions prohibiting the development and operation of its applications.

Internal Controls

Effective internal controls are necessary for the Company to provide reliable financial reports and to help prevent fraud. Although the Company will undertake a number of procedures and will implement a number of safeguards, in each case, in order to help ensure the reliability of its financial reports, including those imposed on the Company under Canadian securities law, the Company cannot be certain that such measures will ensure that the Company will maintain adequate control over financial processes and reporting. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm the Company's results of operations, or cause it to fail to meet its reporting obligations. If the Company or its auditors discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in the Company's consolidated financial statements and materially adversely affect the trading price of Pharmadrug's shares.

Liability for Activity of Employees, Contractors, and Consultants

The Company could be liable for fraudulent or illegal activity by its employees, contractors and consultants resulting in significant financial losses to claims or regulatory enforcement actions against the Company. The drug development industry is under strict scrutiny. Failure to comply with relevant laws could result in fines, suspension of licenses and civil or criminal action being taken against the Company. Consequently, the Company is subject certain risks, including the risk that employees, contractors, and consultants may inadvertently fail to follow the law or purposefully neglect to follow the law, either of which could result in material adverse effects to the financial condition of the Company.

Disruption of Business

Conditions or events including, but not limited to, those listed below could disrupt the Company's operations, increase operating expenses, resulting in delayed performance of contractual obligations or require additional expenditures to be incurred: (i) extraordinary weather conditions or natural disasters such as hurricanes, tornadoes, floods, fires, extreme heat, earthquakes, etc.; (ii) a local, regional, national or international outbreak of a contagious disease, including the COVID-19 coronavirus, MERS, Severe Acute Respiratory Syndrome, HINI influenza virus, avian flu, or any other similar illness could result in a general or acute decline in economic activity (see also, "Public Health Crises, including COVID-19"); (iii) political instability, social and labour unrest, war or terrorism; or (iv) interruptions in the availability of basic commercial and social services and infrastructure including power and water shortages, and shipping and freight forwarding services including via air, sea, rail and road.

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Disclosure of Internal Controls over Financial Reporting

Management has established processes to provide them sufficient knowledge to support representations that they have exercised reasonable diligence that (i) the consolidated financial statements do not contain any untrue statement of material fact or omit to state a material fact required to be stated or that is necessary to make a statement not misleading in light of the circumstances under which it is made, as of the date of and for the periods presented by the consolidated financial statements; and (ii) the consolidated financial statements fairly present in all material respects the financial condition, results of operations and cash flows of the Company, as of the date of and for the periods presented. In contrast to non-venture companies, this MD&A does not include representations relating to the establishment and maintenance of disclosure controls and procedures ("DC&P") and internal control over financial reporting ("ICFR"). In particular, management is not making any representations relating to the establishment and maintenance of: controls and procedures designed to provide reasonable assurance that information required to be disclosed by the Company in its filings or other reports or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation; and a process to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. Investors should be aware that inherent limitations on the ability of management of the Company to design and implement on a cost-effective basis DC&P and ICFR may result in additional risks to the quality, reliability, transparency and timeliness of filings and other reports provided under securities legislation.

Cautionary Note Regarding Forward-Looking Statements

This MD&A includes "forward-looking statements", within the meaning of applicable securities legislation, which are based on the opinions and estimates of management and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements. Forward-looking statements are often identified by the use of words such as "seek", "anticipate", "budget", "plan", "continue", "estimate", "expect", "forecast", "may", "will", "project", "predict", "potential", "targeting", "intend", "could", "might", "should", "believe" and similar words suggesting future outcomes or statements regarding an outlook. Forward-looking statements herein include those relating to, without limitation: the Company's growth strategy and plans, including plans relating to those entities in which it has invested; substantial fluctuation of losses from quarter to quarter and year to year due to numerous external risk factors, and anticipation that we will continue to incur significant losses in the short-term future; the risk of unforeseen changes in the laws or regulations in Canada, the U.S. and other jurisdictions in the Company operates; the development and commercialization of cepharanthine; the results of and plans for further R&D and clinical trials on cepharanthine; the results of the Company's R&D in the psychedelics space; the Company's ability to obtain and maintain required permits or approvals; the reliance on third-party experts and contract manufacturers to deliver quality preclinical and clinical materials; the duration of COVID-19 and the extent of its economic and social impact; and the Company's ability to access additional fundings and its needs. Such statements are based on numerous assumptions believed by management to be reasonable in the circumstances, including among others that the Company will succeed with its cannabis and psychedelic business. The risks and uncertainties that could affect such forward-looking statements include, but are not limited to, those set out in this MD&A under "Risk Factors" as well as: inability to identify and complete future strategic investments and acquisitions on favourable terms or at all; operating internationally and/or in emerging markets; and agricultural risks. Due to the risks, uncertainties, and assumptions inherent in forward-looking statements, prospective investors in securities of the Company should not place undue reliance on these forward-looking statements.

Readers are cautioned that the foregoing lists of risks, uncertainties and other factors are not exhaustive. The forward-looking statements contained in this MD&A are made as of the date hereof and the Company undertakes no obligation to update publicly or revise any such statements, whether as a result of new information, future events or otherwise, except in accordance with applicable securities laws. The forward-looking statements herein are expressly qualified by this cautionary statement.

Management's Responsibility for Financial Information

Management is responsible for all information contained in this MD&A. The Company's Q1 2023 Financial Statements have been prepared in accordance with IFRS and include amounts based on management's informed judgments and estimates. The financial and operating information included in this MD&A is consistent with that contained in the Q1 2023 Financial Statements in all material aspects.

The Audit Committee has reviewed the Q1 2023 Financial Statements and this MD&A with management of Pharmadrug. The Board of the Company has approved the Q1 2023 Financial Statements and this MD&A on the recommendation of the Audit Committee.

May 25, 2023

Daniel Cohen
Chief Executive Officer