PHARMATHER HOLDINGS LTD.

INTERIM MANAGEMENT'S DISCUSSION AND ANALYSIS – QUARTERLY HIGHLIGHTS

Three and Six Months Ended November 30, 2021

(Expressed in Canadian Dollars)

Dated: January 21, 2022

INTRODUCTION

PharmaTher Inc. ("PharmaTher") was incorporated under the Business Corporations Act (Ontario) on April 1, 2020. The registered head office of the Company is 82 Richmond Street East, Toronto, Ontario M5C 1P1.

PharmaTher Holdings Ltd. (formerly Newscope Capital Corporation) ("Newscope" or the "Company") was incorporated under the Business Corporations Act (British Columbia) on March 20, 2019. The registered head office of the Company is 1055 West Georgia Street, 1500 Royal Centre, P.O. Box 11117, Vancouver B.C. V6E 4N7, Canada.

On June 10, 2020, Newscope issued 47,240,000 common shares as consideration for acquisition of all the issued and outstanding common shares in the capital of PharmaTher (the "Acquisition"). In addition, Newscope issued an aggregate of 115,000 warrants in exchange for the issued and outstanding warrants of PharmaTher. Each warrant entitles the holder thereof to acquire one common share in the capital of Newscope at an exercise price of $0.10 for a period of 24 months from the original date of issuance. The Acquisition was accounted for as a reverse takeover ("RTO") whereby PharmaTher was identified as the acquirer for accounting purpose and the resulting consolidated financial statements are presented as a continuance of PharmaTher and the comparative figures presented in the consolidated financial statements after the RTO are those of PharmaTher. After the RTO, the combined entity of Newscope and PharmaTher is referred to as the "Company" in this Interim MD&A (defined below).

PharmaTher is a clinical-stage psychedelics biotech company focused on the research, development and commercialization of novel uses, formulations and delivery methods of psychedelics to treat mental illness, neurological and pain disorders.

The Canadian Dollar is the Company's functional and reporting currency. Unless otherwise noted, all dollar amounts are expressed in Canadian Dollars.

The following interim Management's Discussion & Analysis ("Interim MD&A") of the Company for the three and six months ended November 30, 2021, has been prepared to provide material updates to the business operations, liquidity, and capital resources of the Company since its last annual management's discussion & analysis, being the Management's Discussion & Analysis ("Annual MD&A") for the fiscal year ended May 31, 2021. This Interim MD&A does not provide a general update to the Annual MD&A, or reflect any non-material events since the date of the Annual MD&A.

This Interim MD&A has been prepared in compliance with section 2.2.1 of Form 51-102F1, in accordance with National Instrument 51-102 – Continuous Disclosure Obligations. This discussion should be read in conjunction with the Annual MD&A and audited annual consolidated financial statements of the Company for the years ended May 31, 2021, and period from April 1, 2020 (Date of Incorporation) to May 31, 2020, together with the notes thereto, and unaudited condensed interim consolidated financial statements of the Company for the three and six months ended November 30, 2021, and 2020, together with the notes thereto. Results are reported in Canadian dollars, unless otherwise noted. The Company's financial statements and the financial information contained in this Interim MD&A are prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board and interpretations of the IFRS Interpretations Committee. The unaudited condensed interim consolidated financial statements have been prepared in accordance with International Standard 34, Interim Financial Reporting. Accordingly, information contained herein is presented as of January 21, 2022, unless otherwise indicated.

Further information about the Company and its operations can be obtained from the offices of the Company.

CAUTIONARY NOTE REGARDING FORWARD LOOKING INFORMATION

This Interim MD&A contains forward-looking information and statements ("forward-looking statements") which may include, but are not limited to, statements with respect to the future financial or operating performance of the Company. Forward-looking statements reflect the current expectations of management regarding the Company's future growth, results of operations, performance and business prospects and opportunities. Wherever possible, words such as "may", "would", "could", "will", "anticipate", "believe", "plan", "expect", "intend", "estimate" and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the actual results, performance or events to be materially different from any future results, performance or events that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the "Risk Factors" section of this Interim MD&A. Although the Company has attempted to identify important factors that could cause actual results, performance or events to differ materially from those described in the forward-looking statements, there could be other factors unknown to management or which management believes are immaterial that could cause actual results, performance or events to differ from those anticipated, estimated or intended. Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking statements prove incorrect, actual results, performance or events may vary materially from those expressed or implied by the forward-looking statements contained in this Interim MD&A. These factors should be considered carefully, and readers should not place undue reliance on the forward-looking statements. Forward-looking statements contained herein are made as of the date of this Interim MD&A and the Company assumes no responsibility to update forward looking statements, whether because of new information or otherwise, other than as may be required by applicable securities laws.

Forward-Looking Statements	Assumptions	Risk Factors
The Company's (i) development of product candidates, (ii) demonstration of such product candidates' safety and efficacy in clinical trials, and (iii) obtaining regulatory approval to commercialize these product candidates.	Financing will be available for development of new product candidates and conducting clinical studies; the actual results of the clinical trials will be favourable; development costs will not exceed the Company's expectations; the Company will be able to retain and attract skilled staff; the Company will be able to recruit suitable patients for clinical trials; all requisite regulatory and governmental approvals to commercialize the product candidates will be received on a timely basis upon terms acceptable to the Company; applicable economic conditions are favourable to the Company.	Availability of financing in the amount and time frame needed for the development and clinical trials may not be favourable; increases in costs; uncertainties of COVID-19 pandemic; the Company's ability to retain and attract skilled staff; the Company's ability to recruit suitable patients for clinical trials; timely and favourable regulatory and governmental compliance, acceptances, and approvals; interest rate and exchange rate fluctuations; changes in economic conditions.
The Company's ability to obtain the substantial capital it requires to fund research and operations.	Financing will be available for the Company's research and operations and the results thereof will be favourable; debt and equity markets, exchange and interest rates and other applicable economic conditions are favourable to the Company.	Changes in debt and equity markets; uncertainties of COVID-19 pandemic; timing and availability of external financing on acceptable terms; increases in cost of research and operations; interest rate and exchange rate fluctuations; adverse changes in economic conditions.
Factors affecting pre-clinical research, clinical trials and regulatory approval process of	Actual costs of pre-clinical research, clinical and regulatory processes will be consistent with the Company's current	The Company's product candidates may require time-consuming and costly pre-clinical and clinical studies

Forward-Looking Statements	Assumptions	Risk Factors
the Company's product candidates.	expectations; the Company will be able to retain and attract skilled staff; the Company will be able to recruit suitable patients for clinical trials; the Company will be able to complete pre-clinical research and clinical studies on a timely basis with favourable results; all applicable regulatory and governmental approvals for product candidates will be received on a timely basis with terms acceptable to the Company; debt and equity markets, exchange and interest rates, and other applicable economic and political conditions are favourable to the Company; there will be a ready market for the product candidates.	and testing and regulatory approvals before commercialization; the Company's ability to retain and attract skilled staff; uncertainties of COVID-19 pandemic; the Company's ability to recruit suitable patients for clinical trials; adverse changes in regulatory and governmental processes; interest rate and exchange rate fluctuations; changes in economic and political conditions; the Company will not be adversely affected by market competition.
The Company's ability to commercialize on its own or find and enter into agreements with potential partners to bring viable product candidates to commercialization.	The Company will be able to commercialize on its own or to find a suitable partner and enter into agreements to bring product candidates to market within a reasonable time frame and on favourable terms; the costs of commercializing on its own or entering into a partnership will be consistent with the Company's expectations; partners will provide necessary financing and expertise to bring product candidates to market successfully and profitably.	The Company will not be able to commercialize on its own or find a partner and/or enter into agreements within a reasonable time frame; if the Company enters into agreements, these agreements may not be on favourable terms to the Company; costs of entering into agreements may be excessive; uncertainties of COVID-19 pandemic; potential partners will not have the necessary financing or expertise to bring product candidates to market successfully or profitably.
The Company's ability to obtain and protect the Company's intellectual property rights and not infringe on the intellectual property rights of others.	Patents and other intellectual property rights will be obtained for viable product candidates; patents and other intellectual property rights obtained will not infringe on others.	The Company will not be able to obtain appropriate patents and other intellectual property rights for viable product candidates; patents and other intellectual property rights obtained will be contested by third parties; no proof that acquiring a patent will make the product more competitive.
The Company's ability to source markets which have demand for its products and successfully supply those markets in order to generate sales.	The anticipated markets for the Company's potential products and technologies will continue to exist and expand; the Company's products will be commercially viable, and it will successfully compete with other research teams who are also examining potential products.	The anticipated market for the Company's potential products and technologies will not continue to exist and expand for a variety of reasons, including competition from other products and the degree of commercial viability of the potential product.
Future actions with respect to and potential impacts of pending claims.	The Company will be able to settle or otherwise obtain disposition of claims against it on favourable terms.	The Company may will not be able to settle pending claims on favourable terms; claims may be adjudicated in

Forward-Looking Statements	Assumptions	Risk Factors
		a manner that is not favourable to the Company.

Inherent in forward-looking statements are risks, uncertainties, and other factors beyond the Company's ability to predict or control. Please also make reference to those risk factors referenced in the "Risk Factors" section below. Readers are cautioned that the above chart does not contain an exhaustive list of the factors or assumptions that may affect the forward-looking statements, and that the assumptions underlying such statements may prove to be incorrect. Actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking statements contained in this Interim MD&A.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any of its future results, performance or achievements expressed or implied by forward-looking statements. All forward-looking statements herein are qualified by this cautionary statement. Accordingly, readers should not place undue reliance on forward-looking statements. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements whether as a result of new information or future events or otherwise, except as may be required by law. If the Company does update one or more forward-looking statements, no inference should be drawn that it will make additional updates with respect to those or other forward-looking statements, unless required by law.

BUSINESS OVERVIEW

The Company is a clinical-stage biotech company focused on the research, development and commercialization of novel uses, formulations and delivery methods of psychedelics. Currently, PharmaTher is developing specialty ketamine prescription-based products such as KETAPATCH™, a ketamine microneedle patch for mental health and pain disorders, and KETARX™, a ketamine hydrochloride injection USP product for anesthesia, procedural sedation and neurological disorders including Parkinson's disease and Amyotrophic Lateral Sclerosis. The Company is also developing a novel microneedle patch, PHARMAPATCH™ to deliver psychedelics (i.e. psilocybin, DMT, LSD and MDMA). PharmaTher's patent portfolio includes granted and provisional patents on method of uses and formulations of ketamine and microneedle drug delivery systems for psychedelic pharmaceuticals. PharmaTher aims to leverage the attractive U.S. Food and Drug Administration ("FDA") regulatory incentives for expedited approvals, such as the FDA 505(b)(2) regulatory pathway orphan drug, fast track and breakthrough designations. In addition, the Company actively seeks licensing, acquisition or partnership opportunities from industry and academia.

CORPORATE HIGHLIGHTS

On June 1, 2021, the Company and TSRL, Inc. entered into a Co-Development Agreement to jointly develop a microneedle array patch with the aim to control the manufacturing and supply of microneedle patches for the Companies respective clinical and commercial drug programs.

On June 15, 2021, the Company announced that it has filed a pre-Investigational New Drug ("pre-IND") meeting request and complete pre-IND briefing package with the Federal Drug Administration to support the clinical development of KETABET™ and the proposed Phase 2 clinical study as a potential next-generation treatment for depression, and to discuss the product development plan for the Company's patented hydrogel-forming microneedle patch delivery technology.

On September 28, 2021, the Company closed its previously announced private placement with institutional investors of its common shares ("Common Shares") and warrants to purchase common shares ("Warrants") for gross proceeds of $10 million (the "Private Placement"). Pursuant to the Private Placement, the Company issued 15,625,000 Common Shares and Warrants to purchase 15,625,000 Common Shares at a purchase price of $0.64 per Common Share and associated Warrant. Each Warrant will entitle the holder to purchase one Common Share at an exercise price of $0.80 per Common Share for a period of five years following the closing date of the Private Placement.

On September 29, 2021, the Company announced that Dr. Thomas Laughren has been retained by PharmaTher as a Regulatory Affairs Advisor. Dr. Laughren will advise on regulatory matters as it pertains to KETABET™.

On October 6, 2021, the Company announced that it has initiated its Phase 2 KET-LID clinical trial of Ketamine for the treatment of Levodopa-Induced Dyskinesia in Subjects with Parkinson's Disease.

On October 13, 2021, the Company announced that FDA has granted orphan drug designation for ketamine in the treatment of complex regional pain syndrome.

On October 19, 2021, the Company announced that it has entered into an agreement with Alcami Corporation for the clinical and commercial manufacturing of the Company's proprietary ketamine products.

On November 1, 2021, the Company provided an update on the ongoing research studies with its novel microneedle patch as a next generation delivery technology for psychedelics, including ketamine, psilocybin, 3,4-methylenedioxy-methamphetamine ("MDMA"), lysergic acid diethylamide ("LSD"), and N, N-dimethyltryptamine ("DMT").

On November 3, 2021, the Company announced it entered into a research collaboration agreement with Revive Therapeutics Ltd. to evaluate the delivery of psilocybin with PharmaTher's proprietary microneedle patch technology for neuropsychiatric disorders.

On November 11, 2021, the Company announced that it successfully completed its first research study evaluating its microneedle patch for the intradermal delivery of psychedelics, in delivering psilocybin.

On November 24, 2021, the Company announced that it has applied with the FDA to receive Orphan Drug Designation ("ODD") for ketamine to treat Status Epilepticus, a rare neurological disorder requiring emergency treatment for a seizure. The Company has received FDA ODD for ketamine to treat amyotrophic lateral sclerosis and complex regional pain syndrome.

On November 30, 2021, the Company announced that the Japan Patent Office issued Japanese Patent No. 6967532 for KETABET™, a combination formulation of FDA-approved ketamine and betaine anhydrous, which has shown in research to enhance the antidepressant effect while having the potential to reduce the known negative side effects of ketamine significantly.

On December 14, 2021, the Company announced that it successfully completed its first research study evaluating its proprietary microneedle patch for the intradermal delivery of psychedelics, in delivering lysergic acid diethylamide ("LSD").

On December 20, 2021, the Company announced it has entered into a process development agreement with LTS Lohmann Therapie-Systeme AG for the clinical trial scale up of PharmaTher's proprietary Ketamine microneedle patch product.

On January 4, 2022, the Company announced the publication of a scientific article demonstrating the potential of KETABET™, a patented combination formulation of FDA-approved ketamine and betaine anhydrous, to prevent the potential adverse psychiatric effects of repeated ketamine treatment for depression and other indications including suicidal ideation, substance abuse, post-traumatic stress disorder, and chronic pain. The article titled, "Betaine prevents and reverses the behavioral deficits and synaptic dysfunction induced by repeated ketamine exposure in mice", is published in Biomedicine & Pharmacotherapy.

On January 12, 2022, the Company announced that the U.S. FDA has accepted an investigator-initiated investigational new drug application to proceed with a Phase 2 clinical trial evaluating ketamine in the treatment of Amyotrophic Lateral Sclerosis, also known as Lou Gehrig's disease.

RESEARCH AND DEVELOPMENT

The Company is focused on the research and development of novel uses, formulations and delivery methods of psychedelics. PharmaTher's is developing specialty ketamine prescription-based products such as KETAPATCH™, a ketamine microneedle patch for mental health and pain disorders, and KETARX™, a ketamine hydrochloride injection USP product for anesthesia, procedural sedation and neurological disorders including Parkinson's disease and Amyotrophic Lateral Sclerosis. The Company is also developing a novel microneedle patch, PHARMAPATCH™ to deliver psychedelics (i.e. psilocybin, DMT, LSD and MDMA).

KETARX™

KETARX™ is the Company's Ketamine Hydrochloride injection USP product being developed for rare neurological disorders, such as Parkinson's disease and Amyotrophic Lateral Sclerosis, and anesthesia and procedural sedation. Ketamine is a rapid-acting, nonbarbiturate general anesthetic approved by the FDA in 1970 and is clinically used for analgesia, sedation, and anesthetic induction. Ketamine is a generic drug classified by the Drug Enforcement Agency ("DEA") as a Schedule III controlled substance. Published studies have demonstrated ketamine's potential in major depressive disorder, bipolar depression, depression with suicidal ideation, post-traumatic stress disorder, drug addiction, Parkinson's disease, and pain management.

KETARX™ for anesthesia and procedural sedation

The Company is developing a generic form of Ketamine Hydrochloride Injection USP multi-dose use. In the U.S., Ketamine Hydrochloride is indicated as an anaesthetic agent for diagnostic and surgical procedures that do not require skeletal muscle relaxation. The Company expects to form partnerships with research labs, ketamine clinics and pharmaceutical companies that are: seeking a secure supply of cGMP ketamine and ketamine products for current portfolios; exploring alternative dose forms for multiple existing indications; and requiring support to develop and eventually commercialize specific ketamine products for new indications. In addition, the Company will enter the market with KETARX targeting ketamine's FDA approved label for anesthesia and procedural sedation. The Company will seek to file a supplemental Abbreviated New Drug Application for with the FDA and seek regulatory approvals for international markets.

KETARX™ for Parkinson's disease

Parkinson's disease is a debilitating disorder that affects over 1 million people in the U.S. and more than 7 million people worldwide. There is currently no cure for Parkinson's disease, although some drug combinations are used to treat the disease symptoms. Levodopa is the gold standard for Parkinson's disease treatment but features significant drawbacks, including the major side effect of dyskinesia and a loss of effectiveness over time. Approximately 50% of patients with PD will develop Levodopa-induced dyskinesia ("LID") 4-5 years after the initiation of levodopa therapy, and this number rises to 80% after 10-12 years of levodopa treatment. LID may interfere with motor function, cause or aggravate pain and is known to worsen the quality of life significantly. Individuals with Parkinson's disease may experience a host of non-motor symptoms such as autonomic dysfunction, psychiatric (depression), cognitive and sensory symptoms (pain). Therefore, there is an urgent need for alternative treatments and has been identified by the regulatory authorities, patient advocacy groups such as Michael J. Fox Foundation, and key opinion leaders as a substantial unmet medical need.

PharmaTher has entered into an exclusive license agreement with the University of Arizona for the development and commercialization of ketamine in the treatment of Parkinson's disease. Ketamine is an FDA-approved drug with a known safety profile. Prior clinical reports suggest that low-dose ketamine infusions are well tolerated and can improve pain and depression, both often comorbidities in Parkinson's disease patients. Inventors Dr. Scott Sherman and Dr. Torsten Falk, both associate professors at The University of Arizona College of Medicine – Tucson, are working with Tech Launch Arizona to patent the results from preclinical data and five case studies in Parkinson's disease patients showing that low-dose sub-anesthetic ketamine infusion indicates tolerability, safety and the potential of long-term therapeutic benefit to reduce Levodopa-induced dyskinesia, improve on time, and reduce depression. [1-5]

The FDA has approved the Company's Investigational New Drug application to proceed with a Phase 2 clinical trial to evaluate the safety, efficacy and pharmacokinetics of ketamine in the treatment of levodopa-induced dyskinesia in patients with Parkinson's disease. Assuming the study is positive, the Company will request a meeting with the FDA to discuss its plan and obtain an agreement to move to a Phase 3 clinical study and accelerated marketing approval. The Company will seek regulatory approval under the FDA 505(b)(2) regulatory pathway.

KETARX™ for Amyotrophic Lateral Sclerosis

ALS is a progressive neuromuscular disease with a life expectancy of only two to six years after diagnosis. Currently, there is no known cure for ALS. ALS affects approximately 50,000 people in the U.S. and Europe, with over 5,000 new cases diagnosed annually. As ALS advances, upper and lower motor neurons die, causing the brain to lose its ability to control muscle movement. ALS patients experience progressive loss of voluntary muscle action as an effect of the disease, resulting in the inability to speak, eat, move and, eventually, breathe. The FDA approved only three pharmaceuticals for the treatment of ALS: riluzole, edaravone, and Nuedexta (dextromethorphan HBr and quinidine sulfate). These drugs are effective against disease mechanisms of ALS but fail to have measurable effects on attenuating disease progression or improve survival. Therefore, there is an imperative need for new pharmacological

1. UA Clinical Trial to Repurpose Ketamine for Parkinson's Patients.
2. US20190060254A1— Compositions and methods for treating motor disorders.
3. Bartlett, et al, 2020. Preclinical evidence in support of repurposing sub-anesthetic ketamine as a treatment for L-DOPA-induced dyskinesia. Experimental Neurology. Volume 333.
4. Bartlett, M.J., Joseph, R.M., LePoidevin, L.M., Parent, K.L., Laude, N.D., Lazarus, L.B., Heien, M.L., Estevez, M., Sherman, S.J., Falk, T., 2016. Long-term effect of sub-anesthetic ketamine in reducing L-DOPA-induced dyskinesias in a preclinical model.
5. Sherman, S.J., Estevez, M., Magill, A.B., Falk, T., 2016. Case reports showing a long-term effect of subanesthetic ketamine infusion in reducing L-DOPA-induced dyskinesias. Case Rep. Neurol. 8, 53–58.

therapies that can stop or slow the muscle decline associated with ALS progression and extend the life expectancy of the ALS patient.

PharmaTher entered into an exclusive license agreement with The University of Kansas to develop and commercialize the intellectual property of ketamine to treat ALS. Ketamine has the potential to effectively increase the life expectancy of those with ALS at any stage and slow the progressive loss of muscle associated with poor outcomes of the disease. The University of Kansas Medical Center researchers and inventors of the potential use of ketamine to treat ALS, Dr. Richard J. Barohn, M.D., John A. Stanford, Ph.D., and Dr. Matthew Macaluso, D.O., have made the promising discovery that ketamine can be administered as an effective treatment for ALS. Unpublished and patent-pending preclinical research has shown that the administration of ketamine preserves muscle function in advancing ALS and increases life expectancy when given in the early stages of muscle decline. Ketamine works by blocking the action of the ionotropic glutamate receptor, the NMDA receptor. Unlike other inhibitors of NMDA receptor function, such as riluzole, ketamine dampens NMDA receptor-related glutamate excitotoxicity indirectly. Further, ketamine can lower D-serine concentrations intracellularly and also partially activates dopamine receptors. Collectively, these mechanisms of ketamine contribute in part to the drug's neuroprotective effects, which may extend to the motor neurons targeted in ALS.

The FDA has accepted an investigator-initiated investigational new drug application to proceed with a Phase 2 clinical trial evaluating ketamine in the treatment of ALS. Assuming the study is positive, the Company will request a meeting with the FDA to discuss its plan and obtain an agreement to move to a Phase 3 clinical study and accelerated marketing approval. The Company will seek regulatory approval under the FDA 505(b)(2) regulatory pathway.

KETAPATCH™

The Company is developing KETAPATCH™, racemic ketamine microneedle patch, for mental health, neurological and pain disorders. KETAPATCH™ aims to empower patients to dose their medication remotely, safely and conveniently rather than being under supervision by a healthcare provider at a certified medical office. KETAPATCH™ has the potential to incorporate anti-tampering and anti-abuse features because of the combined presence of ketamine and betaine and the delivery format of the product that would parallel the approach used for the tamper-resistant transdermal fentanyl patch.

In a research project with The Queen's University of Belfast, led by Professor Ryan Donnelly, the Company has successfully completed the evaluation of a patented hydrogel-forming microneedle patch to deliver Ketamine and KETABET™. This de-risking milestone supports the Company's expansion in finalizing IND-enabling studies and the clinical manufacturing scale up with LTS Lohmann, a leader in transdermal delivery systems, to support FDA and international regulatory submissions.

KETABET™

PharmaTher entered into an Exclusive Worldwide License Agreement with the National Health Research Institutes ("NHRI") for the development and commercialization of a patented combination formulation of FDA-approved ketamine and betaine ("KETABET™") as a potential next-generation ketamine treatment for mental health, neurological and pain disorders. KETABET™ has shown in clinical research to enhance the antidepressant effect while having the potential to significantly reduce the known negative side effects of ketamine.[6] Side effects such as

6. J.-C. Lin, M.-Y. Lee, M.-H. Chan, Y.-C. Chen, H.-H. Chen, Betaine enhances antidepressant-like, but blocks psychotomimetic effects of ketamine in mice, Psychopharmacology (Berl). 233 (2016) 3223–32

hallucinations, confusion, memory loss and abuse liability compromise the compliance and potential therapeutic value of ketamine.

Betaine anhydrous (CYSTADANE®) was approved by the FDA in 1996 for the treatment of homocystinuria to decrease elevated homocysteine blood concentrations. There is growing evidence that betaine plays a critical role in regulating brain functions and has an antidepressant-like effect. [7] Betaine has been reported to prevent seizures in rodents [8], to improve symptoms of Rett syndrome [9], and to delay the onset of neurologic impairment due to vitamin B12 deficiency [10] clinically. Furthermore, betaine attenuates memory deficits induced by homocysteine. [11]

Based on preclinical studies that supported the granted patent (Taiwan patent: I648049) and patent applications International Publication Number: WO2017205666A1) of KETABET™, the combination of ketamine and betaine produced more robust antidepressant-like responses than their individual effects and that the combination blocked the psychotomimetic effects of ketamine.6 This suggests that betaine can be considered as an add-on therapy to ketamine or as a fixed-dose combination therapy for treatment-resistant depression, treatment-resistant bipolar disorder, post-traumatic stress disorder, obsessive-compulsive disorder and chronic pain.

PHARMAPATCH™

PHARMAPATCH™ is the Company's microneedle patch technology solutions, such as its hydrogel-forming delivery system and its gelatin methacryloyl delivery system, for psychedelics (i.e. ketamine, psilocybin, DMT, LSD and MDMA, mescaline, ibogaine, etc). The Company seeks to develop its own microneedle patch products and partner these programs with life sciences companies.

Hydrogel-Forming Microneedle Delivery

PharmaTher entered into an exclusive worldwide patent and know-how license agreement with The Queen's University of Belfast ("QUB") to develop and commercialize a patented hydrogel-forming microneedle patch delivery technology developed by Professor Ryan Donnelly to support PharmaTher's product and clinical development initiatives involving ketamine. The patented microneedle patch delivery system consists of hydrogel-forming microneedle arrays and an accompanying reservoir which will overcome any limitations by the quantity of drug that can be loaded into the needles or onto the needle surfaces. The microneedle patch can significantly increase drug permeating through the microneedle array and into the skin.

Most recently, Professor Donnelly's lab successfully completed research and published a paper titled "Hydrogel-forming microneedle arrays as a therapeutic option for transdermal esketamine delivery," validating the delivery of esketamine, the S(+) enantiomer of ketamine, in a novel microneedle patch which may overcome the drawbacks associated with ketamine administration in an intravenous or nasal spray format.

PharmaTher entered into a sponsored research agreement with QUB to further develop KETAPATCH™ and KETABET™ hydrogel-forming microneedle delivery system.

Gelatin Methacryloyl Microneedle Delivery System for Psychedelics

7. Freed 1984;
8. Kim et al. 2013; Di Pierro et al. 2015;
9. Percy and Lane 2005;
10. Van der Westhuyzen and Mertz 1984;
11. Chai. Et al 2013

PharmaTher entered into an exclusive license agreement with BioRAE, Inc., for the development and commercialization of a novel biocompatible and biodegradable gelatin methacryloyl microneedle ("GelMA-MN") delivery technology developed at the University of California, Los Angeles ("UCLA") for use with psychedelic pharmaceuticals, including, but not limited to Psilocybin, Ketamine, Ibogaine, LSD, MDMA, DMT, and Cannabinoids.

The GelMA-MN delivery technology was invented and developed by the members of the Khademhosseini Lab at UCLA. Studies have shown that GelMA can be used for the fabrication of MN arrays and the delivery of both water-soluble and insoluble drugs with desirable release profiles. GelMA is derived from the natural polymer gelatin with crosslinkable methacrylate group making it an ideal candidate for MN fabrication and various other biomedical applications. The GelMA-MNs are biocompatible and biodegradable, can efficiently penetrate the stratum corneum layer (outer layer of the skin), enable flexible drug load capacity and combinations, and control-release delivery. MNs are considered as a promising way to achieve systemic effects by transdermal delivery of drugs. In addition to applications on the skin, MNs may be applied in other organs and tissues like the eyes and mucosal surfaces. MNs are minimally invasive, painless, and may overcome the potential drawbacks of oral administration, subcutaneous injections and other transdermal delivery systems.

PharmaTher entered into a sponsored research agreement with the Terasaki Institute to further develop the GelMA MN patch for the delivery of psilocybin, DMT, MDMA and LSD.

FINANCIAL RESULTS

The Company reported a net loss of $1,051,553 for the six months ended November 30, 2021, which is comprised of unrealized gain on investment of $500,000, research of $706,480, consulting fee of $373,196, general, and administrative of $65,301, stock-based compensation of $168,779, shareholder information and filing fees of $120,235 and professional fees of $117,562. The Company is maintaining reporting issuer status while moving forward in its research initiatives as outlined under "Research and Development" above.

The Company reported a net loss of $1,975,417 for the six months ended November 30, 2020, which is comprised of professional fees of $316,185, research of $204,164, consulting fees of $352,887, stock-based compensation of $535,501, shareholder information and filing fees of $83,438, RTO transaction cost of $332,174 and general and administrative of $151,068.

The Company reported a net loss of $137,079 for the three months ended November 30, 2021, which is comprised of unrealized gain on investment of $900,000, research of $527,447, consulting fee of $173,424, general and administrative of $23,359, stock-based compensation of $168,779, shareholder information and filing fees of $67,533 and professional fees of $76,537.

The Company reported a net loss of $1,166,385 for the three months ended November 30, 2020 which is comprised of professional fees of $292,325, research of $12,556, consulting fees of $283,887, stock-based compensation of $391,527, shareholder information and filing fees of $72,486, and general and administrative of $113,604.

LIQUIDITY AND CAPITAL RESOURCES

The Company's approach to managing liquidity risk is to ensure that it will have sufficient liquidity to meet liabilities when due. The Company's liquidity and operating results may be adversely affected if the Company's access to the capital market is hindered, whether because of a downturn in stock market conditions generally or because of conditions specific to the Company. The Company regularly evaluates its cash position to ensure preservation and security of capital as well as maintenance of liquidity. As the Company does not presently generate revenue to cover its costs, managing liquidity risk is dependent upon the ability to secure additional financing. The recoverability of the carrying value of the assets and the Company's continued existence is

dependent upon the achievement of profitable operations, or the ability of the Company to raise alternative financing, as necessary. While management and the Board have been successful in raising the necessary capital, it cannot provide assurance that it will be able to execute on its business strategy or be successful in future financing activities.

As of November 30, 2021, the Company had a cash balance of $11,276,436 to settle current liabilities of $307,401. The Company has retained earnings of $1,588,827 as of November 30, 2021.

As of November 30, 2021, based on current projections, the Company's working capital of $14,652,263, which is comprised of current assets less current liabilities, is sufficient to meet its planned development activities for the financial year ending May 31, 2022. The table below outlines the Company's planned uses of working capital:

Use of Capital	Estimated Cost	Spent to date (approx.)	Remaining Funds to Spend or (excess)
General and administrative (1)	$1,250,000	$677,000	$573,000
Research and development (2)	$7,000,000	$706,000	$6,294,000
Total	**$8,250,000**	**$1,383,000**	**$6,867,000**

Notes:

(1) This figure is for a forecasted period from June 1, 2021, to May 31, 2022, and is comprised of consulting fees in the amount of approximately $750,000, professionals' fees in the amount of approximately $250,000, transfer agent and regulatory fees in the amount of approximately $50,000, sales and marketing in the amount of approximately $50,000, and insurance and office expenses in the amount of approximately $150,000.

(2) This figure is for a forecasted period from June 1, 2021, to May 31, 2022, and is comprised of anticipated costs of $1,500,000 in connection with the Phase 2 clinical study with ketamine for Parkinson's disease, anticipated costs of $2,000,000 in connection with KETARX™ development, anticipated costs of $2,000,000 in connection with KETAPATCH™ development, anticipated costs of $500,000 for the Company's KETABET clinical study and anticipated costs of $1,000,000 for general research, development, and clinical studies.

Unallocated funds will be deposited in the Company's bank account and added to the working capital of the Company. The CFO of the Company will be responsible for the supervision of all financial assets of the Company. Based on the Company's cash flow requirements, management will determine the appropriate level of liquidity required for operations and will draw down such funds as necessary.

There may be circumstances, where for business reasons, a reallocation of funds may be necessary for the Company to achieve its stated business objectives. To date, the COVID-19 pandemic has not had an impact on the Company's available funds or the anticipated use of such funds.

The Company had negative cash flow from operating activities for the six months ended November 30, 2021. The Company cannot guarantee it will have a cash flow positive status from operating activities in future periods. As a result, the Company continues to rely on the issuance of securities or other sources of financing to generate sufficient funds to fund its working capital requirements and for corporate expenditures. The Company may continue to have negative cash flow from operating activities until sufficient levels of sales are achieved. To the extent that the Company has negative cash flow from operating activities in future periods, the Company may need to use a portion of proceeds from any offering to fund such negative cash flow.

RELATED PARTY TRANSACTIONS

(a) Related party balances and transactions

Related parties include the directors of the Company, close family members and enterprises which are controlled by these individuals as well as persons performing similar functions.

Names	Three months ended November 30, 2021 $	Three months ended November 30, 2020 $	Six months ended November 30, 2021 $	Six months ended November 30, 2020 $
Fabio Chianelli (i)	75,000	43,000	120,000	82,000
Marrelli Support Services Inc. ("MSSI") (ii)	17,175	20,177	27,414	29,497
DSA Corporate Services Inc. ("DSA") (iii)	23,297	6,534	37,079	6,534
Marrelli Trust Company Limited ("Marrelli Trust")	4,295	nil	5,315	nil
Total	**119,767**	**69,711**	**189,808**	**118,031**

(i) Fees are related to services of Fabio Chianelli to act as the Chief Executive Officer ("CEO") of the Company. Fabio Chianelli is the owner of Fabiotech Inc. As at November 30, 2021, $nil was owed to the CEO.

(ii) Fees are related to services of Carmelo Marrelli to act as the Chief Financial Officer ("CFO") of the Company. Carmelo Marrelli is the Managing Director of MSSI. Services were incurred for bookkeeping, accounting and CFO services. As at November 30, 2021, MSSI was owed $2,318 (May 31, 2021 - $2,354) and this amount was included in accounts payable and accrued liabilities. This amount is unsecured and non-interest bearing.

(iii) The CFO of the Company is an officer of DSA and the Corporate Secretary of the Company is an employee of DSA. Fees are related to corporate secretarial and filing services provided by DSA. As at November 30, 2021, DSA was owed $7,181 (May 31, 2021 - $1,978) and this amount was included in accounts payable and accrued liabilities. This amount is unsecured and non-interest bearing.

(iv) The CFO of the Company is a director of Marrelli Trust. Marrelli Trust provided stock transfer services to the Company. As at November 30, 2021, Marrelli Trust was owed $3,618 (May 31, 2021 - $nil) and this amount was included in accounts payable and accrued liabilities. This amount is unsecured and non-interest bearing.

(v) During the year ended May 31, 2021, one of the officers of the Company paid research and development expenses for $2,608 on behalf of the Company. As at November 30, 2021, the Company owed $2,559 to the officer.

(b) Remuneration of directors and key management

In accordance with IAS 24, key management personnel 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. Remuneration of management of the Company was as follows:

Names	Three months ended November 30, 2021 $	Three months ended November 30, 2020 $	Six months ended November 30, 2021 $	Six months ended November 30, 2020 $
Stock-based compensation	nil	nil	nil	52,790

(c) Major shareholders

To the knowledge of the directors and senior officers of the Company, as at November 30, 2021, no person or corporation beneficially owns or exercises control over common shares of the Company carrying more than 10% of the voting rights attached to all common shares of the Company other than Mr. Fabio Chianelli who owns 17.75% of the Company. The holding can change at any time at the discretion of the owners.

None of the Company's major shareholders have different voting rights compared to holders of the Company's common shares.

The Company is not aware of any arrangements the operation of which may at a subsequent date result in a change in control of the Company. To the knowledge of the Company, it is not directly or indirectly owned or controlled by another corporation, by any government or by any natural or legal person severally or jointly.

TRENDS AND ECONOMIC CONDITIONS

(a) Management regularly monitors economic conditions and estimates their impact on the Company's operations and incorporates these estimates in both short-term operating and longer-term strategic decisions.

(b) Due to the worldwide COVID-19 outbreak, material uncertainties may come into existence that could influence management's going concern assumption. Management cannot accurately predict the future impact COVID-19 may have on:

- The severity and the length of potential measures taken by governments to manage the spread of the virus, and their effect on service provider availability;
- Purchasing power of the Canadian dollar; or
- Ability to obtain funding.

At the date of this Interim MD&A, the Canadian government has not introduced measures which impede the activities of the Company. Management believes the business will continue and accordingly the current situation bears no impact on management's going concern assumption. However, it is not possible to reliably estimate the length and severity of these developments and the impact on the financial results and condition of the Company in future periods.

(c) Apart from these and the risk factors noted under the heading "Risk Factors" and "Cautionary Note Regarding Forward-Looking Information", management is not aware of any other trends, commitments, events or uncertainties that would have a material effect on the Company's business, financial condition or results of operations.

RISK FACTORS

An investment in the securities of the Company is highly speculative and involves numerous and significant risks. Such investment should be undertaken only by investors whose financial resources are sufficient to enable them to assume these risks and who have no need for immediate liquidity in their investment. Prospective investors should carefully consider the risk factors that have affected, and which in the future are reasonably expected to affect, the

Company and its financial position. Please refer to the section entitled "Risk Factors" in the Company's Annual MD&A for the year ended May 31, 2021.