



PharmaTher Provides Research Update on Microneedle Patch Delivery Technologies for Psychedelics

- *Completing IND-enabling studies with novel microneedle patch for ketamine, psilocybin, MDMA, LSD, and DMT.*
- *Expanding research in evaluating ibogaine and mescaline.*
- *Aiming for FDA Phase 1 and 2 clinical studies in Q2-2022.*
- *Discussing partnership opportunities for delivering psychedelics with MicroDose-MN™ and MacroDose-MN™ patches.*

TORONTO, Nov. 01, 2021 (GLOBE NEWSWIRE) -- PharmaTher Holdings Ltd. (the "Company" or "PharmaTher") (OTCQB: PHRRF) (CSE: PHRM), a clinical-stage psychedelics biotech company, today provides an update on the ongoing research studies with its novel microneedle ("MN") 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").

The Company has research collaborations with the Terasaki Institute to evaluate MicoDose-MN™; a patent-pending biocompatible and biodegradable gelatin methacryloyl microneedle patch, to deliver psilocybin, MDMA, LSD and DMT, and with The Queen's University of Belfast ("QUB") to evaluate MacroDose-MN™; a patented hydrogel-forming microneedle patch, to deliver ketamine and PharmaTher's proprietary ketamine combination formulation, ketamine and betaine ("KETABET™") for mental health, neurological and pain disorders.

Research results with MicroDose-MN™ for psilocybin and LSD will be made available in November 2021, followed by results with MDMA and DMT in December 2021. Research results with MacroDose-MN™ for ketamine and KETABET™ will be made available in December 2021. Current research results are very encouraging; therefore, the Company has decided to expand research to include ibogaine and mescaline, prepare IND applications with the FDA for Phase 1 and 2 clinical studies in Q2-2022, and discuss partnership opportunities with specialty pharmaceutical companies seeking a novel and validated delivery system for psychedelics targeting specific indications and desired pharmacokinetic profiles.

PharmaTher is proceeding with its IND-enabling studies and manufacturing scale-up for cGMP microneedle patches for its expected clinical studies in 2022. The MicroDose-MN™ and MacroDose-MN™ patches can efficiently penetrate the stratum corneum layer (outer layer of the skin), enable flexible drug load capacity and combinations, and control-release delivery, which may overcome the potential drawbacks of oral administration, subcutaneous injections, topical and nasal delivery systems. In addition to the potential of maintaining constant plasma levels for more than 24 hours, the MN patches aim to empower patients to dose their medication remotely, safely and conveniently rather than under supervision by a healthcare provider at a certified medical office. To achieve this, the Company will incorporate anti-tampering and anti-abuse features that would parallel the approach used for the tamper-resistant transdermal fentanyl patch.

"We are nearing completion of our research programs in validating the utility of our microneedle patch delivery technologies for psychedelics, derisking our plans in advancing the completion of our IND-enabling studies to support future clinical studies and partnering opportunities," said Fabio Chianelli, CEO of PharmaTher. "As we look forward to announcing our research results, our focus continues to expand our ketamine-based product pipeline and advance our microneedle patch programs to unlock significant value and return on investment for long-term revenue potential through our products and our future partners."

About PharmaTher Holdings Ltd.

PharmaTher Holdings Ltd. (OTCQB: PHRRF) (CSE: PHRM) is a clinical-stage psychedelics biotech company focused on the research, development and commercialization of novel uses, formulations and delivery methods of psychedelics, such as ketamine, to treat mental health, neurological and pain disorders. PharmaTher is currently advancing an FDA approved phase 2 clinical study with ketamine to treat Parkinson's disease and is developing a novel microneedle patch for the intradermal delivery of psychedelics and infectious disease treatments.

Learn more at: [PharmaTher.com](https://www.pharmather.com) and follow us on [Twitter](https://twitter.com/PharmaTher) and [LinkedIn](https://www.linkedin.com/company/pharmather).

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