



## PharmaTher Announces Positive Research Results for LSD Microneedle Patch

- *Delivering LSD via microneedle patch unlocks potential for desired dosage forms and pharmacokinetic profiles for improved safety and effectiveness*
- *Pursuing Phase 2 clinical studies in 2022 with LSD and notable psychedelics*

TORONTO, Dec. 14, 2021 (GLOBE NEWSWIRE) -- PharmaTher Holdings Ltd. (the "Company" or "PharmaTher") (OTCQB: PHRRF) (CSE: PHRM), a clinical-stage psychedelics biotech company, is pleased to announce that it has successfully completed its first research study evaluating MicroDose-MN™, a proprietary microneedle ("MN") patch for the intradermal delivery of psychedelics, in delivering lysergic acid diethylamide ("LSD"). These results provide support to file for an IND application with the FDA to conduct Phase 2 clinical studies in 2022 with LSD for various indications.

The aim of PharmaTher's research program was to develop a suitable prototype of MicroDose-MN™ patch for transdermal (intradermal) drug delivery to confirm compatibility and suitability to deliver LSD. The research program scope included, full characterization of LSD conjugated on the microneedle patch backbone, establishment and demonstration of the loading capacity for LSD, and release rate evaluations for the LSD conjugated materials using appropriate models that will be used to support the Company's IND application with the FDA in the future.

The Company's research program with LSD conjugated microneedles have been successfully fabricated, optimized, and characterized. Both structural aspects and ex-vivo skin insertion assessments of the LSD conjugated microneedles have demonstrated successful fabrication and acceptable performance. The incorporation of LSD into microneedles without issue and the ability to demonstrate complete ex vivo skin model release over several days demonstrates potential for larger doses and modified release profiles. With these results, the Company believes it has an acceptable prototype for completing IND-enabling studies with the aim to conduct clinical studies in 2022. Details of the research program will be published in a scientific journal.

The Company believes that its MicroDose-MN™ patch for delivering LSD and other psychedelics may enable flexible drug load capacity and combinations, controlled released delivery, and be able to present desired pharmacokinetic and safety profiles. In addition, the MicroDose-MN™ patch for psychedelics aims to empower patients to dose their medication remotely, safely and conveniently rather than under supervision by a healthcare provider at a certified medical office or hospital. 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.

The Company is completing its evaluation of MicroDose-MN™ with 3,4-methylenedioxy-methamphetamine ("MDMA") and N, N-dimethyltryptamine ("DMT") and expects to provide results before the end of this year and pursue clinical studies in 2022.

The Company is actively engaged in partnering discussions for the use of its microneedle patch system to deliver psychedelics including, but not limited to, MDMA, LSD, DMT, ibogaine and mescaline. As such, PharmaTher offers potential partners a differentiated and validated delivery system for psychedelics, desired pharmacokinetic profiles, intellectual property protection, cGMP microneedle patches for IND-enabling and clinical studies, and a clear clinical pathway towards clinical studies in 2022.

### **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](#) and [LinkedIn](#).

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