May 26, 2021

MindMed and Liechti Lab in Basel Switzerland Publish First Pharmacogenetic Data on LSD to Help Guide Personalized Dosing

NEW YORK, May 26, 2021 /CNW/ -- MindMed (Nasdaq: MNMD) (NEO: MMED) (DE: MMQ), a leading psychedelic medicine biotech company, announced today the publication of the first pharmacogenetic data on LSD to help personalize dosing. The study results from a pooled secondary analysis of four Phase 1 studies that each used a randomized, double-blind, placebo-controlled, crossover design and were conducted at the University Hospital Basel Liechti Lab, in Basel, Switzerland.

The results of this study indicate that pharmacogenetic testing prior to LSD-assisted treatment may inform LSD dose selection at the individual patient level.

Dr. Matthias Liechti said, "This is the first data on the pharmacogenetics of LSD. The results indicate that a test of the metabolic function of a patient by CYP2D6 phenotyping and genotyping can be used to adjust the dose of LSD. Such information is important for the further development of LSD into a medication and could ultimately help to personalize patient treatment."

Key findings:
In vitro studies indicate that metabolic cytochrome P450 isoforms, particularly CYP2D6, CYP1A2, and CYP2C9, are involved in LSD metabolism, but clinical studies of the effects of variations of these isoforms had not been conducted.

This study examined the influence of genetic polymorphisms of important CYP enzymes on the pharmacokinetics and acute psychological effects of LSD in healthy subjects. Common genetic variants of CYPs including CYP2D6, CYP1A2, CYP2C9, CYP2C19, and CYP2B6 were identified in 81 healthy subjects pooled from four randomized placebo-controlled double-blind Phase 1 studies.

Genetically determined CYP2D6 functionality significantly influenced the pharmacokinetics

of LSD. Specifically, individuals with no functional CYP2D6, known as poor metabolizers, had longer LSD half-lives and approximately 75% higher parent drug and main metabolite, 2-oxo-3-hydroxy-LSD, area under the curve blood plasma concentrations compared with carriers of functional CYP2D6. Additionally, non-functional CYP2D6 metabolizers exhibited increased acute psychological effects and longer subjective effect durations compared with functional CYP2D6 metabolizers.

No effect on the pharmacokinetics or acute effects of LSD were observed with other CYP variations. These results indicate that specific genetic polymorphisms of CYP2D6 significantly influence the pharmacokinetic and subjective effects of LSD.

The study "Genetic influence of CYP2D6 on pharmacokinetics and acute subjective effects of LSD in a pooled analysis" was published in the Nature Scientific Reports and the full-text can be accessed from the publishers at: https://www.nature.com/articles/s41598-021-90343-y.

MindMed Executive President, Dr. Miri Halperin Wernli said, "The psychedelic experience can be conceptualized as the facilitated transforming encounter between one's fears and longings with the universe and its network of living processes. This work with Professor Liechti, indicating that genetic polymorphisms of CYP2D6 significantly influence the pharmacokinetic and subjective effects of LSD, is an illustration that biological and psychological transformation processes may be deeply interwoven. When LSD is the chosen key to open an opportunity for psycho-transformation and growth, individual parameters such as one's own metabolization and bio-transformation rhythm have to be carefully understood and taken into consideration in order to allow the transformative effect to happen in the most powerful and safe manner."

About MindMed

MindMed is a clinical-stage psychedelic medicine biotech company that discovers, develops and deploys psychedelic inspired medicines and therapies to address addiction and mental illness. The company is assembling a compelling drug development pipeline of innovative treatments based on psychedelic substances including Psilocybin, LSD, MDMA, DMT and an Ibogaine derivative, 18-MC. The MindMed executive team brings extensive biopharmaceutical experience to MindMed's approach to developing the next generation of psychedelic inspired medicines and therapies.

MindMed trades on the NASDAQ under the symbol MNMD and on the Canadian NEO exchange under the symbol MMED. MindMed is also traded in Germany under the symbol MMQ.

Forward-Looking Statements

Certain statements in this news release related to the Company constitute "forward-looking information" within the meaning of applicable securities laws and are prospective in nature. Forward-looking information is not based on historical facts, but rather on current expectations and projections about future events and are therefore subject to risks and uncertainties which could cause actual results to differ materially from the future results expressed or implied by the forward-looking statements. These statements generally can be identified by the use of forward-looking words such as "will", "may", "should", "could", "intend", "estimate", "plan", "anticipate", "expect", "believe", "potential" or "continue", or the negative thereof or similar variations. Forward-looking information in this news release include statements regarding the genetic influence of CYP2D6 on pharmacokinetics, the acute subjective effects of LSD, findings from the University Hospital Basel Liechti Lab's

Phase 1 studies, the metabolic function of patients, the development of LSD into a medication, the potential effect of variations of CYP2D6, CYP1A2, and CYP2C9, and the Company's intended future business plans and operations, including the development of psychedelic inspired medicines and experiential therapies. Although the Company believes that the expectations reflected in such forward-looking information are reasonable, such information involves risks and uncertainties, and undue reliance should not be placed on such information, as unknown or unpredictable factors could have material adverse effects on future results, performance or achievements of the Company. There are numerous risks and uncertainties that could cause actual results and the Company's plans and objectives to differ materially from those expressed in the forward-looking information, including history of negative cash flows; limited operating history; incurrence of future losses; availability of additional capital; lack of product revenue; compliance with laws and regulations; difficulty associated with research and development; risks associated with clinical trials or studies; heightened regulatory scrutiny; early stage product development; clinical trial risks; regulatory approval processes; novelty of the psychedelic inspired medicines industry; as well as those risk factors discussed or referred to herein and the risks described under the headings "Risk Factors" in the Company's filings with the securities regulatory authorities in all provinces and territories of Canada and available under the Company's profile on SEDAR at www.sedar.com and with the U.S. Securities and Exchange Commission on EDGAR at www.sec.gov. Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward-looking information prove incorrect, actual results and future events could differ materially from those anticipated in such information. Although the Company has attempted to identify important risks, uncertainties and factors that could cause actual results to differ materially, there may be others that cause results not to be as anticipated, estimated or intended. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and are expressly qualified in their entirety by this notice. Except as required by law, the Company does not intend and does not assume any obligation to update this forward-looking information.

View original content to download multimedia:http://www.prnewswire.com/news-releases/mindmed-and-liechti-lab-in-basel-switzerland-publish-first-pharmacogenetic-data-on-lsd-to-help-guide-personalized-dosing-301299501.html

SOURCE Mind Medicine (MindMed) Inc.