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WOKE EXTENDS PARTNERSHIP WITH UNIVERSITY OF WESTERN AUSTRALIA FOLLOWING DISCOVERY OF 55 NEW LSD COMPOUNDS

The University of Western Australia and Woke Pharmaceuticals have signed an extension to a second agreement to pursue novel and active analogues of Lysergic Acid Diethylamide (LSD). LSD is a classic hallucinogen, used recreationally since 1938, and a molecule that has shown to have meaningful benefit for patients with certain mental health disorders.

The expanded research contract follows the discovery of 55 novel compounds by lead researcher, Associate Professor Scott Stewart, and Postdoctoral Fellow Dr Michael Nutt at The University of Western Australia.

A key consideration of the drug discovery program was to produce easy-to-synthesise analogues of LSD with high potency at the serotonin receptor required for psychedelic effects (5-HT_{2A}), but with reduced, or ideally abolished, activity at an important but unwanted off-target cardiac receptor (5-HT_{2B}), which with chronic use is associated with life-threatening side effects including heart valve failure. This cardiac toxicity liability is currently shared by all classical psychedelics in use, and engineering new compounds without activity at 5HT_{2B} is a top priority for next-generation drugs.

Associate Professor Stewart and Dr Nutt have discovered nine compounds in this original group of LSD analogues that have met the potency and selectivity requirements for 5-HT_{2A} over 5-HT_{2B}. In this group the general selectivity is 30 times more likely to target the preferred 5-HT_{2A} receptor.

The next stage of the project involves *in vitro* pharmacokinetic research, which includes exploring how the new compounds are absorbed, distributed, metabolised, and excreted. This will help predict speed of absorption, oral availability, and half-life of the candidates.

The new compounds will be sent to commercial testing laboratories in Australia, Belgium, China and the United States where assays will be completed to simulate how the compounds will behave in the human body. Furthermore, the team is interested in assessing the neuroplasticity promoting potential of these compounds and compare these to the known psychedelics, LSD and psilocin.

Matthew Hayne, Managing Director of Woke Pharmaceuticals said: “The pharmacokinetic research is a critical step towards potential future clinical trials as the data derived from this independent research may be able to demonstrate that our newly discovered compounds have low risk profiles for human testing. This is obviously a major consideration for regulators when deciding whether to approve a clinical trial or not.

“Associate Professor Stewart and Postdoctoral Fellow Dr Nutt will be assessing the research as it comes in and should particular compounds perform strongly, Woke and UWA will be looking to aggressively pursue an intellectual property strategy aimed at protecting and securing the discoveries for both parties. The immediate goal is to unveil both true psychedelics and non-hallucinogenic neuroplasticity promoters without 5-HT_{2B} activity. Filing of a provisional patent application is now underway.

“Any future patents securing the new compounds could create lasting value for Woke Pharmaceuticals with the interest in psychedelics expected to continue to grow”, said Matthew Hayne.

The first five compounds were sent out for pharmacokinetic testing this week with results expected in 4 -6 weeks.



In March this year it was announced that an LSD analogue (MM120) had achieved 'breakthrough status' by the US Food and Drug Administration (FDA).

*****ENDS*****

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ABOUT WOKE PHARMACEUTICALS

Woke Pharmaceuticals Pty Ltd is an Australian-based company focused on the development and commercialisation of novel psychedelic therapies for the treatment of mental health disorders. The Company's lead candidates are based on synthetic psilocybin, which is a naturally occurring psychedelic prodrug compound produced by more than 200 species of fungi. Clinical trials have shown its safety and efficacy in the treatment of mental health disorders. Woke Pharmaceuticals is developing two dose forms with rapid release capabilities. The Company is also conducting a novel drug discovery programme to identify pharmacologically optimised analogues of LSD with The University of Western Australia.

For further information, please visit www.wokeph.com.