LSD may benefit medical science

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Research into the effects of LSD on the brain has revealed the potential for the drug in psychological research, according to University of Auckland researcher involved in a new study.

The study was a collaboration of research scientists in the United Kingdom, New Zealand, Germany, Brazil and Canada, and results were published in the latest Proceedings of the National Academy of Sciences (PNAS).

One of the principle study authors, Dr Suresh Muthukumaraswamy, a researcher with the School of Pharmacy at the University of Auckland says, Lysergic acid diethylamide (LSD), the prototypical “psychedelic,” may be unique among psychoactive substances.

“In the decades that followed its discovery, the magnitude of its effect on science, the arts, and society was unprecedented,” he says. “LSD produces profound, sometimes life-changing experiences in microgram doses, making it a particularly powerful scientific tool.”

“In this study we sought to examine its effects on brain activity, using cutting-edge and complementary neuroimaging techniques in the first modern neuroimaging study of LSD,” says Dr Muthukumaraswamy.

“The results revealed marked changes in brain blood flow, electrical activity, and network communication patterns that correlated strongly with the drug’s hallucinatory and other consciousness-altering properties.”

“These results have implications for the neurobiology of consciousness and for potential applications of LSD in psychological research,” he says.

The study’s uniquely comprehensive examination of the LSD state represents an important advance in
scientific research with psychedelic drugs at a time of growing interest in their scientific and therapeutic value.

“These results contribute important new insights into the characteristic hallucinatory and consciousness-altering properties of psychedelics that inform on how they can model certain pathological states and potentially treat others,” says Dr Muthukumaraswamy.


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