Methods for Preparing Ergoline Analogs

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ABSTRACT

Researchers at the University of California, Davis have developed methods to create ergoline analogs that promote neuronal growth without hallucinogenic effects.

FULL DESCRIPTION

This technology involves novel preparation techniques for ergoline-based compounds that modulate serotonin 5-HT2 receptors to enhance neuronal plasticity and connectivity. These analogs aim to rectify structural deficits in the brain associated with neuropsychiatric and neurological disorders, such as the loss of dendritic spines and synapses in the prefrontal cortex, while minimizing hallucinogenic side effects.

APPLICATIONS

- Development of ergoline-based therapeutics.
- Treatments for depression, anxiety, and addiction.
- Therapies addressing neuropsychiatric and neurological disorders.
- Pharmaceutical development of safer psychoplastogenic drugs.
- Research tools to study neuronal plasticity and brain architecture.

FEATURES/BENEFITS

- Promotes neuronal growth and enhances brain architecture.
- Targets serotonin 5-HT2 receptors, exerting psychoplastogenic effects.
- Reduces undesirable subjective effects by being non-hallucinogenic.
- Offers a potentially safer therapeutic option for patients with psychotic illnesses such as schizophrenia.
- Demonstrates antidepressant, anxiolytic, and anti-addictive properties.
- Addresses the loss of dendritic spines and synapses in the prefrontal cortex.
- Reverses reduced dendritic arbor complexity linked to neuropsychiatric diseases.
- Overcomes limitations of hallucinogenic therapeutics in clinical settings.
- Resolves contraindications of hallucinogens for individuals with psychotic disorders.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20260078124	03/19/2026	2025-508

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

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OTHER INFORMATION

KEYWORDS

antidepressant, analogs, ergoline, hallucinogenic, neuropsychiatric, neuroplasticity, serotonin, synapses, therapeutics, 5-HT2 receptors

CATEGORIZED AS

- **Medical**
  - New Chemical Entities, Drug Leads

RELATED CASES

2025-508-0

- Novel Psychoplastogenic Tropanes for Treating Brain Disorders
- Combinations of Psychoplastogens and DYRK1A Inhibitors
- Iboga Entactogens
- Isotryptamine Tetracycles for Treating Brain Disorders
- dimerLight
- GPCR Screening Method to Identify Non-Hallucinogenic Compounds
- Psychoplastogens For Treating Hearing-Related Disorders

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