

Umecrine Cognition attends INBC 2024 to present new preclinical data showing conserved dopamine signaling in Parkinson's disease

STOCKHOLM – October [21], 2024. Umecrine Cognition today announces that the company will attend the 10th Edition of the International Conference on Neurology and Brain Disorders (INBC 2024) to present new results from a recent study in a preclinical model of Parkinson's disease. The results show that treatment with the company's lead clinical drug candidate, golexanolone, reverses the decrease of a key dopamine-producing enzyme and generates sustained treatment effects. The company's CSO & SVP Dr. Magnus Doverskog will attend the conference on October 21–23rd, in Baltimore, Maryland, USA.

Parkinson's disease (PD) is a neurodegenerative disorder caused by the progressive loss of nerve cells in the brain that produce the signaling substance dopamine. This leads to a variety of symptoms including tremors, muscle stiffness, slow movement, and balance problems, as well as pain, poor sleep and declined mental health. The symptoms of PD worsen over time and greatly reduce the well-being and quality of life, both for patients and their loved ones. There are currently no curative treatments for PD, and available therapies only provide partial symptom relief while also inducing limiting side effects (dyskinesia).

In a recent preclinical study, Umecrine Cognition, and its scientific partner, investigated if treatment with the clinical drug candidate, golexanolone, prevents dopamine loss in the brain, as well as the longevity of any potential treatment effects. The results show that treatment with golexanolone significantly reduced ($p < 0.05$) the decrease of a dopamine-producing enzyme (tyrosine hydroxylase, TH) in the brain, returning dopamine to normal levels, compared to vehicle treatment ($p < 0.05$). Moreover, early onset of treatment generated sustained effects indicating a potential for reduced symptomatic progression ($p < 0.01$ or $p < 0.05$, depending on the parameter analyzed). These results support previous study findings, showing improvements in both motor incoordination and non-motor behavior in a preclinical model of PD (6-OHDA), also without inducing dyskinesia.

The study results will be presented by Umecrine Cognition's Chief Scientific Officer and Senior Vice President, Dr. Magnus Doverskog, at the Scientific Session "Alzheimer's and Parkinson's Diseases" on October 22, 2024.

"We are delighted by the evidence obtained in our studies so far, illuminating how neuroinflammation in the brain increases the GABAergic neurotransmission, in turn reducing the levels of dopamine to produce behaviors translatable to symptoms observed in patients with Parkinson's disease. Umecrine Cognition's clinical drug candidate, golexanolone, may represent a novel approach to normalizing dopamine levels in the brain by modulating neuroinflammation and GABA neurotransmission, rather than directly influencing dopamine signaling," comments Dr. Vicente Felipo, Centro de Investigación Príncipe Felipe, Valencia.

Based on the evidence found in preclinical investigations, the company will now begin to explore potential strategies for the clinical evaluation of golexanolone as a complementary treatment for Parkinson's disease in parallel with its ongoing phase 2 trial in primary biliary cholangitis.

"In addition to fatigue and cognitive impairment in PBC, golexanolone shows potential in altering key steps in the mechanisms that lead to behavioral impairments in Parkinson's disease. Treatment with our drug candidate may thus be useful to improve the symptomology, which has a heavy impact on the patients' quality of life. One of the main advantages would be to provide a more comprehensive treatment approach that offers sustained effects on both motor and non-motor symptoms, without causing side effects such as dyskinesia," says Magnus Doverskog, SVP & Chief Scientific Officer, Umecrine Cognition.

Read the abstract: [Golexanolone improves microglia activation and tyrosine hydroxylase levels in substantia nigra, dopamine in striatum and several motor and non-motor alterations in 6-OHDA rats](#)

Learn more about the conference: [10th Edition of International Conference on Neurology and Brain Disorders](#)

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About Umecrine Cognition

Umecrine Cognition AB is developing a completely new class of drugs for the treatment of symptoms in the central nervous system related to chronic neuroinflammation – a devastating brain distortion that can lead to severely impaired cognition and fatigue. Chronic neuroinflammation can occur as a result of a number of underlying conditions, including a range of liver diseases as well as neurodegenerative diseases, such as Parkinson's disease. Results from an internationally acclaimed Phase 2 clinical trial indicate that the company's most advanced drug candidate, the GABAA receptor-modulating steroid antagonist golexanolone, normalizes brain signaling and improves cognition and alertness in patients with hepatic encephalopathy. A Phase 2 trial is currently ongoing in patients with primary biliary cirrhosis. Further, based on intriguing preclinical data, the company is considering pursuing the development of golexanolone in patients with Parkinson's disease. For more information, visit www.umecrinecognition.com.

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Attachments

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