Umecrine Cognition publishes new nonclinical data for golexanolone in Parkinson's disease that will be presented at the FENS Forum 2024

STOCKHOLM – June 28, 2024. Umecrine Cognition today announces that the company has published new nonclinical data in the journal Frontiers in Aging Neuroscience, showing the beneficial effects of golexanolone on both non-motor and motor symptoms in a preclinical model of Parkinson's disease. The results show that golexanolone treatment led to improvements in motor incoordination, fatigue, anxiety, and depression. Further, golexanolone improved the activation states of microglia and astrocytes, mitigated tyrosine hydroxylase loss, and prevented the increase of a-synuclein levels. Collectively, these published data validate previous preliminary results of the effect of golexanolone on symptoms and neuroinflammatory pathways. Results from the article will be presented at the FENS Forum 2024 taking place in Vienna, Austria, June 25–29.

The study utilized a standardized preclinical disease model (6-OHDA) of Parkinson's disease (PD) to assess if golexanolone could reduce debilitating motor and non-motor symptoms, and to identify potential underlying mechanisms. The results show that golexanolone had beneficial effects on both motor and non-motor symptoms of PD. Notably, the drug had an ameliorating effect on symptoms that negatively affect the quality of life among PD patients, including fatigue, anxiety, depression, and short-term memory impairments. Fatigue and cognitive impairment are two major disabling symptoms, along with depression and anxiety, which develop in approximately a third of all patients, making these the most common psychiatric symptoms in Parkinson's disease.

Based on insights from the study, the authors put forth three main contributors to the positive effects of golexanolone, including reducing neuroinflammation, reducing the loss of the key enzyme tyrosine hydroxylase (TH), and limiting neurotoxic levels of a-synuclein. These factors were evaluated experimentally, showing that the activation of brain immune cells – microglia and astrocytes – was significantly reduced compared to the control group ($p<0.05$) at week 5 following treatment with golexanolone, but not at week 10 as brain damage progressed further in this disease model. Further, golexanolone significantly rescued TH levels compared to the control group ($p<0.05$) at week 5, but not after week 10. Finally, a-synuclein levels were significantly reduced compared to the control group ($p<0.01$) for the duration of the study. Collectively, these data indicate that golexanolone acts across several pivotal pathological processes that are at play in Parkinson's disease, which is indicated by broad symptom improvements. Additionally, recent analyses reveal that the content of galectin-3 is altered at week 10 and this is prevented by golexanolone.

The results from the current study and additional recent findings will be presented at the FENS Forum 2024, organized by the Federation of European Neuroscience Societies. FENS is a premier international neuroscience conference that annually gathers neuroscientists, clinicians and industry representatives from around the world to exchange and discuss the latest research and developments in the field. Results from the article will be presented by the academic collaborating partners at the poster session 06, at 14:00-15:30 CET on June 28th.

"We are very glad to present new and important peer-reviewed data in an esteemed scientific journal. Adding to previous research, these validated results comprise an important building block that further strengthens the scientific rationale on which to continue our clinical development. Importantly, it is worth noting that golexanolone improves the symptomology without also inducing dyskinesia, which is a serious side effect that eventually arises from today's standard treatment with L-DOPA. We look forward to presenting our results at the FENS Forum 2024, where we will point specifically toward the underlying mechanisms by which golexanolone has been shown to improve motor and non-motor symptoms in PD", says Magnus Doverskog, SVP & Chief Scientific Officer, Umecrine Cognition.

To read the full article please follow the link: **https://doi.org/10.3389/fnagi.2024.1417938**

For further information, please contact:

Anders Karlsson, CEO, Umecrine Cognition AB
Phone: +46 70 918 00 10, e-mail: anders.karlsson@umecrine.se

Magnus Doverskog, SVP & CSO, Umecrine Cognition AB
Phone: +46 73 039 20 52, email: magnus.doverskog@umecrine.se

About Umecrine Cognition AB

Umecrine Cognition AB develops a completely new class of pharmaceuticals against neurological disturbances in the brain that may arise as a consequence of several underlying diseases, leading to strongly reduced cognitive functions and wakefulness. Results from an internationally recognized clinical Phase 2 study indicates that the company's most advanced drug candidate, golexanolone, normalizes the brain's signaling and improves cognition as well as wakefulness in patients diagnosed with hepatic encephalopathy. The continued drug development will initially focus on patient groups whose symptoms arise from chronic liver diseases. The mode of action is however relevant in a number of other indications. For more information, visit www.umecrinecognition.com.

Attachments

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