

Umecrine Cognition presents data showing a reduction of neuroinflammation following treatment with golexanolone

Stockholm, January 10, 2022 – Umecrine Cognition AB today announced nonclinical results showing that its clinical drug candidate golexanolone exerts a normalizing effect on neuroinflammation in the cerebellum, resulting in reversal of disease-associated motor disturbances. The study further increases the understanding of golexanolone's mechanism of action and its potential in treating symptoms related to movement and coordination. The study was carried out in collaboration with Dr Vicente Felipo, at the Laboratory of Neurobiology, Centro de Investigación Principe Felipe, Valencia.

Neuroinflammation is a complex process that occur normally in the central nervous system, where immune cells are activated to, amongst other functions, clear out cellular debris, balance metabolic activities and counteract pathogens. However, when dysregulated, and depending on the affected brain area, neuroinflammation plays a main role in the induction of neurological impairments observed in disease states such as hyperammonemia and hepatic encephalopathy, including confusion, fatigue, dizziness, and impaired coordination and cognition. Treatments that specifically limit harmful neuroinflammation are therefore desirable.

Using a nonclinical disease model of hyperammonemia that induces neuroinflammation, imaging analyses revealed that activation of immune cells in the cerebellum, a brain area associated with movement and coordination, was mitigated by treatment with golexanolone, compared to a control group. Further analyses showed that locomotion and motor coordination were normalized following treatment with golexanolone. Together, the results indicate that by targeting the GABAA receptor with golexanolone, harmful neuroinflammation and disease-associated motor symptoms could be alleviated.

"Harmful levels of ammonia and systemic inflammation, observed in patients with chronic liver diseases and hepatic encephalopathy, induces activation of astrocytes and microglia, immune cells present in the cerebellum. Our study results show that golexanolone reverses such activation, and link its beneficial effects to reduction of neuroinflammation which improves neurological function", comments Dr Vicente Felipo, Centro de Investigación Principe Felipe, Valencia.

Umecrine Cognition's drug candidate golexanolone, a novel GABAA receptor modulating steroid, is currently in clinical development for primary biliary cholangitis and hepatic encephalopathy, two indications involving pathogenic accumulation of toxic metabolites, proposedly resulting in disturbed neural signaling.

"We strive to continuously enhance our understanding of golexanolone's mechanism of action and its potential in treating debilitating neurological symptoms. Based on these new insights and previous supportive data, we are in a better position to design and optimize the treatment regimen for our planned Phase 2 clinical study", said Magnus Doverskog, CEO of Umecrine Cognition.

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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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