Umecrine Cognition announces the publication of preclinical results of the candidate drug GR3027 aimed for the treatment of hepatic encephalopathy

STOCKHOLM – August 19, 2015. Umecrine Cognition AB are today pleased to announce the first publication of preclinical results of the company's candidate drug GR3027 in the American Journal of Physiology. The data shows unique reversal of key neurological symptoms in animal models with hepatic encephalopathy (HE) symptoms that have previously not been seen in the treatment models used.

The results were based on preclinical HE rat models recommended by the International Society for Hepatic Encephalopathy which assessed motor coordination and spatial learning, memory and circadian rhythms of ambulatory and vertical activity as HE typical neurological disease outcomes. In conclusion, GR3027 restored motor coordination, spatial memory and spatial learning, while GR3027 treatment partially restored circadian rhythms. The data therefore indicates that GR3027 is a promising candidate drug intended to treat the neurological symptoms of patients with HE.

GR3027 is a $GABA_A$ receptor modulating steroid antagonist (GAMSA) in such way that the compound antagonizes the neurosteroid enhancement of $GABA_A$ receptor activation. The enhanced signaling from $GABA_A$ receptor is a key driver for the neurological symptoms associated with HE.

"The peer reviewed data now announced represents an important proof-of-principle milestone for Umecrine Cognition as we prepare for clinical development of GR3027 in our lead indication hepatic encephalopathy. The results in the HE animal models are highly encouraging as this is the first time the severe neurological symptoms of HE have been reversed through pharmaceutical treatment with a selective inhibitor of neurosteroids on the $GABA_A$ receptor," comments Magnus Doverskog, CEO of Umecrine Cognition.

Hepatic encephalopathy (HE) is a serious neuropsychiatric and neurocognitive complication in acute and chronic liver disease. HE is characterized by impairments of the sleep-wake cycle, consciousness, cognition, memory, decreased energy levels, personality change and reduced motor skills. The disorder therefore has detrimental effects on health related quality of life as a consequence of these diverse and debilitating symptoms. The pathophysiology of HE is driven by reduced liver function through cirrhosis as this increases the ammonia load in the systemic circulation which leads to hyperammonemia and neuroinflammation. The main symptoms of hyperammonemia arise in the brain where impaired neural signaling and cerebral edema gives the characteristic symptoms of HE and there are today no treatments available that directly targets the neurological symptoms.

The article, GR3027 ANTAGONIZES GABAA RECEPTOR POTENTIATING NEUROSTEROIDS AND RESTORES SPATIAL LEARNING AND MOTOR COORDINATION IN RATS WITH HEPATIC ENCEPHALOPATHY, Am J Physiol Gastrointest Liver Physiol. 2015 Jul 2: ajpgi.00073.2015. doi: 10.1152/ajpgi.00073.2015. [Epub ahead of print], presenting the preclinical data of GR3027 is available at
http://ajpgi.physiology.org/content/early/2015/06/26/ajpgi.00073.2015

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TO THE EDITORS

About Umecrine Cognition AB
Umecrine Cognition is developing a potential therapy that represents a new target class relevant for several major CNS-related disorders. The primary focus is to develop a treatment for life-threatening overt Hepatic Encephalopathy and long-term treatment in minimal Hepatic Encephalopathy in patients with liver disease, a growing area with high unmet medical need. The current lack of therapeutics that directly addresses the neurocognitive signs and symptoms of Hepatic Encephalopathy makes a novel treatment likely to become a major contribution for the treatment of this disorder. For more information, please visit www.umecrinecognition.com.