

Karolinska Development's portfolio company Umecrine Cognition publishes clinical research results in a highly regarded journal

STOCKHOLM, SWEDEN 22 April 2021. Karolinska Development AB (Nasdaq Stockholm: KDEV) announces today that its portfolio company Umecrine Cognition has published results from the recently conducted phase 2a study of the drug candidate golexanolone in the highly regarded scientific journal *Journal of Hepatology*. The study results show that the company's drug candidate has a positive effect on neuropsychiatric outcome measures, is well tolerated and has a favorable pharmacokinetic profile even at high and repeated doses. The results strengthen the potential for golexanolone as part of future treatments for hepatic encephalopathy.

Liver failure may over-activate the GABA system in the brain, causing cognitive disturbances and sleep disturbances that reduce the quality of life for both patients and their close relatives. Umecrine Cognition is developing golexanolone (formerly GR3207), a drug candidate with a novel mechanism of action aimed at the GABA_A receptor in the brain. The drug candidate acts by attenuating the incorrect activation of the receptor and can thus restore normal nerve signaling.

The scientific article presents results from a recent phase 2a clinical trial with single and increasing doses (SAD) as well as repeated and increasing doses (MAD) of golexanolone in 77 liver cirrhosis patients. The study evaluated the safety profile and pharmacokinetics of the drug candidate. The results show that golexanolone has a good safety profile and favorable pharmacokinetics, including good systemic distribution.

In an exploratory sub-study, the efficacy of the drug candidate was evaluated in 45 patients with cognitive impairment due to early hepatic encephalopathy, also known as covert hepatic encephalopathy (CHE), receiving either active treatment with golexanolone or placebo. Following the treatment period, the effect of golexanolone on CHE and the risk of disease progression from CHE to overt liver encephalopathy (HE) were analyzed. In summary, the study results indicate that golexanolone has a positive effect on cognition through improved responsiveness (CRT), normalized brain signaling (EEG) and improved sleep status (ESS). The positive phase 2 results support continued development investments in the drug candidate.

"We are delighted that Umecrine Cognition's successes are being spread in international scientific media. It is an important recognition of the high quality of the company's development efforts of drugs against hepatic encephalopathy – a complicated disease state where the need for effective treatment is pronounced," comments Karolinska Development's CEO, Viktor Drvota.

Karolinska Development's ownership interest in Umecrine Cognition amounts to 72%.

The research article is available at the *Journal of Hepatology's* website, press the link below to read it. <https://www.sciencedirect.com/science/article/pii/S0168827821001847>

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TO THE EDITORS

About Karolinska Development AB

Karolinska Development AB (Nasdaq Stockholm: KDEV) is a Nordic life sciences investment company. The company focuses on identifying breakthrough medical innovations in the Nordic region that are developed by entrepreneurs and leadership teams. The Company invests in the creation and growth of companies that advance these assets into commercial products that are designed to make a difference to patients' lives while providing an attractive return on investment to shareholders.

Karolinska Development has access to world-class medical innovations at the Karolinska Institutet and other leading universities and research institutes in the Nordic region. The Company aims to build companies around scientists who are leaders in their fields, supported by experienced management teams and advisers, and co-funded by specialist international investors, to provide the greatest chance of success.

Karolinska Development has a portfolio of ten companies targeting opportunities in innovative treatment for life-threatening or serious debilitating diseases.

The Company is led by an entrepreneurial team of investment professionals with a proven track record as company builders and with access to a strong global network.

For more information, please visit <http://www.karolinskadevelopment.com>.