

## New article on antidepressive effects with NeuroRestore ACD856

**AlzeCure Pharma AB (publ) (FN STO: ALZCUR) a pharmaceutical company that develops a broad portfolio of small molecule candidate drugs for diseases affecting the central nervous system, with projects in both Alzheimer's disease and pain, today announced that a new scientific article on preclinical results supporting antidepressive effects with NeuroRestore ACD856 has been published.**

The article, titled "Antidepressant effects of novel positive allosteric modulators of Trk-receptor mediated signaling – a potential therapeutic concept?", was published in the journal *Psychopharmacology* and corresponding author is Johan Sandin, Chief Scientific Officer at AlzeCure Pharma. Co-authors are Nather Madjid, Veronica Lidell, Gunnar Nordvall, Maria Lindskog, Sven Ove Ögren and Pontus Forsell.

The article focuses on new data showing that ACD856, the lead and clinical drug candidate in the NeuroRestore platform, exhibits antidepressant effects in various preclinical models. These findings are also supported by data showing that ACD856 affects levels of relevant neurotransmitters in the brain. Furthermore, it was shown that other antidepressants also seem to mediate their effects via the same target mechanism as ACD856 and that these can be combined for an even better effect.

"BDNF/TrkB has since long been a biological mechanism believed to play an important role in depression, and our new data, as well as these new publications, suggest that this mechanism is central to the therapeutic effects of antidepressants. Also, the long-term effects on plasticity that appear to be central to these new classes of antidepressants are something associated with BDNF/TrkB signaling and something that the company previously reported that ACD856 exhibits", said Johan Sandin, Chief Scientific Officer at AlzeCure Pharma.

"These new positive data are supported by new publications in *Cell*\* and *Nature Neuroscience*\*\* , which also are commented on in *Science*\*\*\*, where they show that different classes of antidepressant substances seem to mediate their effect via the same mechanism as ACD856 (BDNF/TrkB). Depression is an area of great medical need. That ACD856 exhibits potent antidepressant effects in these preclinical models broadens and strengthens the commercial possibilities of the NeuroRestore project that we are now preparing for Phase II", said Martin Jönsson, VD at AlzeCure Pharma.

The article is available via the following link:  
<https://doi.org/10.1007/s00213-023-06410-x>

\* Casarotto PC et al. *Cell*. (2021) Mar 4;184(5):1299-1313; <https://pubmed.ncbi.nlm.nih.gov/33606976/>

\*\* Moliner, R et al *Nature Neuroscience* (2023) 26, 1032–1041: <https://www.nature.com/articles/s41593-023-01316-5>

\*\*\* <https://www.science.org/content/article/psychedelic-inspired-drugs-could-relieve-depression-without-causing-hallucinations>

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## About AlzeCure Pharma AB (publ)

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AlzeCure® is a Swedish pharmaceutical company that develops new innovative drug therapies for the treatment of severe diseases and conditions that affect the central nervous system, such as Alzheimer's disease and pain – indications for which currently available treatment is very limited. The company is listed on Nasdaq First North Premier Growth Market and is developing several parallel drug candidates based on three research platforms: NeuroRestore®, Alzstatin® and Painless.

NeuroRestore consists of two symptomatic drug candidates where the unique mechanism of action allows for multiple indications, including Alzheimer's disease, as well as cognitive disorders associated with traumatic brain injury, sleep apnea and Parkinson's disease. The Alzstatin platform focuses on developing disease-modifying and preventive drug candidates for early treatment of Alzheimer's disease and comprises two drug candidates. Painless is the company's research platform in the field of pain and contains two projects: ACD440, which is a drug candidate in the clinical development phase for the treatment of neuropathic pain, and TrkA-NAM, which targets severe pain in conditions such as osteoarthritis. AlzeCure aims to pursue its own projects through preclinical research and development through an early clinical phase, and is continually working on business development to find suitable outlicensing solutions with other pharmaceutical companies.

FNCA Sweden AB, +46(0)8 528 00 399 [info@fnca.se](mailto:info@fnca.se), is the company's Certified Adviser. For more information, please visit [www.alzecurepharma.se](http://www.alzecurepharma.se).

## About NeuroRestore

NeuroRestore is a platform of symptom-relieving drug candidates for disease states in which cognitive ability is impaired, e.g. Alzheimer's Disease, sleep apnea, traumatic brain injury and Parkinson's disease. NeuroRestore stimulates several important signaling pathways in the brain, which among other things leads to improved cognition. Preclinical studies with NeuroRestore have shown that AlzeCure's drug candidates enhance communication between the nerve cells and improve cognitive ability. The NeuroRestore substances are so called Trk-PAMs which stimulate specific signaling pathways in the central nervous system known as neurotrophins, the most well-known being NGF (Nerve Growth Factor) and BDNF (Brain Derived Neurotrophic Factor). The levels of NGF and BDNF are disturbed in several disease states and the signaling is reduced. The impaired function impairs communication between the synapses, i.e. the contact surfaces of the nerve endings, as well as reducing the possibility of survival for the nerve cells, which gives rise to the cognitive impairments. Neurotrophins play a crucial role for the function of nerve cells, and a disturbed function of BDNF has a strong genetic link to impaired cognitive ability in several different diseases, such as Alzheimer's, Parkinson's disease, traumatic brain injury and sleep disorders. There is also a link between BDNF signaling and depression, something that has been further strengthened in recent years. In addition to cognitive-enhancing effects, new preclinical data also show that NeuroRestore substances have a positive effect on mitochondrial function and cell survival, which could indicate potential disease-modifying effects. The leading drug candidate in the platform, ACD856, has recently completed clinical phase I studies and demonstrated positive effects there that support continued development of the program.

## About Depression

Depression is a mental health disorder characterized by persistent sadness or a low mood, loss of interest or pleasure in activities once enjoyed and feelings of worthlessness, guilt, or hopelessness. Furthermore, fatigue or lack of energy and cognitive symptoms such as difficulty concentrating, making decisions, or remembering things are also common. It affects a person's thoughts, emotions, and physical well-being, often interfering with their daily functioning and quality of life.

According to the World Health Organization (WHO), more than 264 million people worldwide experience depression. It is estimated that around 4.4% of the global population suffers from depression at any given time. Although there are antidepressant drugs available on the market, there is a need for better drugs with more potent effect, fast onset and less side-effects.

## Image Attachments

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Martin Jönsson CEO O Johan Sandin CSO AlzeCure Pharma

## Attachments

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