

AlzeCure Pharma develops novel analgesic drug based on Nobel prize-winning discoveries

AlzeCure Pharma AB (publ) (FN STO: ALZCUR), a pharmaceutical company that develops a broad portfolio of candidate drugs for diseases affecting the central nervous system, with projects in both Alzheimer's disease and pain, today announced that its novel clinical candidate drug ACD440 for peripheral neuropathic pain, is based on the seminal discoveries of TRPV1 by Prof. Julius, and for which he was awarded the Nobel Prize in Medicine 2021.

David Julius, PhD, professor and chair of the Department of Physiology and Morris Herzstein Chair in Molecular Biology and Medicine at UC San Francisco, has been awarded the 2021 Nobel Prize in Physiology or Medicine. His work has focused on how we can sense heat, cold, and chemical irritants, leading to new insights about the fundamental nature of pain and new targets for pain therapy. His fundamental research led to the identification and cloning of the specific protein responsible for the sensation of burning pain, TRPV1, in 1997.

ACD440 is a clinical-stage TRPV1 antagonist that is being developed as a new topical, local treatment for neuropathic pain. The candidate drug, which was incorporated via an important strategic in-licensing arrangement carried out in January 2020, has its origins in Big Pharma and is based on strong scientific grounds. The compound is being developed as a topical gel for local use, thereby keeping the systemic exposure very low, while the local concentration of the compound can be kept high for maximum analgesic effect.

"It is fantastic news that these seminal findings by professor Julius receive the appropriate attention. The discovery of TRPV1 and its link to pain perception is something that we have made use of in our ACD440 program," said Johan Sandin, CSO at AlzeCure.

In December 2020, AlzeCure initiated a phase Ib clinical trial with ACD440 to assess both tolerability and early signals of efficacy. The positive study results were communicated according to plan in April 2021. AlzeCure is currently preparing for a phase II study with the candidate drug.

"About 50 percent of patients do not respond to current first-line treatment and there is a need to identify analgesics with improved efficacy as well as with a better risk-benefit ratio, said Martin Jönsson, CEO at AlzeCure. A potent topical compound acting by inhibiting the TRPV1 channel would be a novel non-opioid mechanism to obtain an analgesic effect without the associated side-effects observed with the existing therapies."

TRPV1 are specialized cation channels, primarily expressed in sensory neurons. TRPV1 are activated by e.g. heat, acidic pH and capsaicin in "hot" peppers, and play a crucial role in heat sensation and nociception. They are sensitized from noxious stimuli, leading to inflammatory conditions and pain. In chronic pain states, TRPV1 are up-regulated on neurons, have reduced activation thresholds, and cause an increased perception of pain. Interestingly, it is also upregulated in the skin of individuals with many types of neuropathic pain.

"Neuropathic pain is an area with major medical need and associated with impaired quality of life and current treatments rarely provide adequate pain relief," said Märta Segerdahl, CMO at AlzeCure. "In all, an estimated 7-8 percent of the adult population worldwide suffers from pain with neuropathic elements."

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About AlzeCure Pharma AB (publ)

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 to 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, is the company's Certified Adviser. For more information, please visit www.alzecurepharma.se.

About Neuropathic pain

Neuropathic pain affects approximately 7–8 percent of the total adult population. Some patients, with indications such as diabetes and HIV, are affected to a greater extent, where approximately 25 and 35 percent respectively of the patients experience neuropathic pain.

Peripheral neuropathic pain is the result of various types of damage to the nerve fibers, such as toxic, traumatic or nerve compression injuries as well as metabolic and infectious diseases. Common symptoms are painful tingling that can be described as "pins and needles", or choking or burning pain, as well as the feeling of getting an electric shock. Patients may also experience allodynia (pain caused by a stimulus that usually does not cause pain) or hyperalgesia (increased pain from a stimulus that normally provokes pain).

The market for neuropathic pain is characterized by a major medical need in all indications and in all major markets, where only about 50 percent of patients respond to existing treatment.

The patient population will grow, among other things, due to an aging population and increased number of long-term cancer survivors and increasing prevalence of type-2 diabetes.

The global market for neuropathic pain was valued at \$11 billion in 2020 and is expected to grow to \$25 billion by 2027.



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Image Attachments

Martin Jönsson CEO And Johan Sandin CSO AlzeCure Pharma

Attachments

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