

PRESS RELEASE

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Ghrelin treatment in heart failure patients showed increased contractility of the heart

AnaCardio's founder Prof Lars Lund and colleagues from The Karolinska Institutet publish study on ghrelin treatment in patients with heart failure and in isolated heart cells, demonstrating increased contractility and a novel mechanism of action

AnaCardio, a Swedish clinical-stage biopharmaceutical company focused on developing novel contractile agents with a unique mode-of-action based on the ghrelin signalling pathway, is today reporting on a new publication by researchers at the Karolinska Institutet and Karolinska University Hospital in Sweden. The study showed that the peptide hormone ghrelin can increase cardiac output and contractility in patients with heart failure, and demonstrated a novel molecular mode of action. The study was lead by Lars Lund, Professor of Cardiology at the Karolinska Institutet and founder of AnaCardio, and was published in the European Heart Journal.

A randomized, double-blind, placebo-controlled study in 30 patients with heart failure was performed, in which subjects were randomly assigned to either active treatment with ghrelin or placebo given intravenously for two hours (ClinicalTrials.gov Identifier: NCT05277415). After two hours treatment, the cardiac output (i.e. the volume of blood pumped by the heart) had increased by an average of 28 percent in the ghrelin group, compared to no effect in the placebo group. No serious adverse reactions were observed and no signs of arrhythmia, ischemia or hypotension were detected. In order to further study the underlying mechanisms responsible for the increase in pump function, beating mouse heart cells were also studied in the laboratory. Treatment with ghrelin was shown to increase the contractile function of the heart cells, and a novel molecular mechanism responsible for this increase was identified.

Professor Lars Lund commented: *"Heart failure is associated with poor quality of life and is among the most common causes of hospitalization and death. The publication of the results from this study strengthens our commitment to develop a new treatment concept aimed to safely improve cardiac contractility, and subsequently to improve symptoms and outcomes for patients with heart failure."*

As previously reported, and based on this proof-of-concept, AnaCardio is now initiating a clinical trial testing AC01, a small molecule mimicking the actions of ghrelin with the potential to safely improve cardiac contractility in heart failure patients.

Publication: Lund LH, Hage C, Pironti G, Thorvaldsen T, Ljung-Faxén U, Zabarovskaja S, Shahgaldi K, Webb D, Hellström PM, Andersson DC, Ståhlberg M. Acyl ghrelin improves cardiac function in heart failure and increases fractional shortening in cardiomyocytes without calcium mobilization. Eur Heart J 2023; doi: 10.1093/eurheartj/ehad100, <https://academic.oup.com/eurheartj/article-lookup/doi/10.1093/eurheartj/ehad100>

About AnaCardio

AnaCardio AB is a privately held Swedish, clinical stage biopharmaceutical company developing novel drugs to treat heart failure. AnaCardio was founded based on ground-breaking research from Karolinska Institutet showing improved contractility of the heart muscle through a unique and differentiated mechanism. Its lead program AC01 is an oral ghrelin peptidomimetic small-molecule is being developed as a contractile agent in heart failure patients.

You can find more information about AnaCardio at www.anacardio.com.

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