

## COMPANY ANNOUNCEMENT

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### **ViroGates announces the publication of a new study that shows suPAR causes cardiovascular disease**

**BIRKERØD, DENMARK** - ViroGates A/S, a medical technology company developing blood tests for better triaging in hospitals to improve patient care and reduce healthcare costs, announces that a study published on 4 October 2022 in The Journal of Clinical Investigation states: *"Using clinical, genetic and experimental data, a collaborative study between researchers from USA, Sweden and Denmark shows that suPAR is a pathogenic factor for cardiovascular disease"* The study is available for download via this link: <https://doi.org/10.1172/JCI158788>.

The study used a combination of suPARnostic® products from ViroGates, genetic sequencing and experimental mouse and tissue models to show that suPAR levels were predictive of coronary artery calcification and cardiovascular events in 5,406 participants without previously known coronary disease.

The findings are consistent with previous studies showing suPARnostic®'s ability to predict cardiovascular disease. This new study, however, was conducted to determine if suPAR in itself is a factor that causes disease rather than just reflecting it.

To determine causality, the researchers measured suPAR and conducted genetic analysis on more than 25,000 individuals. The mutation associated with elevated suPAR was confirmed to provide higher suPAR levels when expressed in cells and mice and showed that an over-expression of suPAR in mice caused atherosclerotic plaques, a common cardiovascular condition that can lead to stroke and other cardiac diseases.

The causal role of suPAR was finally confirmed by data from a UK biobank, which confirmed that the particular mutation that gives higher suPAR was associated with an increased risk of cardiovascular disease. Furthermore, a rare mutation associated with lower suPAR levels was associated with a lower risk of cardiovascular disease.

The overall conclusion is that the study shows suPAR is causal for developing cardiovascular disease. For ViroGates, suPAR can now be considered a target for preventing and treating cardiovascular diseases. Based on the findings, ViroGates will investigate opportunities and potential pharmaceutical partnerships within cardiology to improve the risk stratification of patients to provide new treatment solutions that lower suPAR and provide a better prognosis for individuals and patients.

**Jesper Eugen-Olsen, CSO of ViroGates, says:** "The fact that suPAR is not only predictive of cardiovascular disease but in itself is causing disease is an entirely new paradigm for the prevention and treatment of cardiovascular disease. suPAR can now be seen as a target for treatment and monitoring. The new findings indicate that individuals with elevated suPAR levels should undergo lifestyle changes or treatment for the inflammatory status to lower suPAR levels. Also, the study opens for developing new anti-suPAR therapies that may prevent disease in high-risk individuals."

**Jakob Knudsen, CEO of ViroGates, says:** "We are excited to see this publication that is a landmark for suPAR research and our suPARnostic® products. We have known for years that suPARnostic® could predict cardiovascular disease. However, the fact that suPAR directly contributes to the disease's development opens new commercial opportunities for us. We will be able to target drug development for cardiovascular disease as clinical trials should incorporate suPARnostic® to select the right patient population. This is comparable to the SAVE-MORE study that focused on selecting COVID-19 patients for anakinra treatment based on their suPAR levels. In addition, we will have a strong value proposition to the commercial players that are targeting the market for general health screening since cardiovascular disease is the biggest target for screening for disease in the general population. This market has previously mainly been screened by, for example, cholesterol markers".

The announcement can be found at <https://www.virogates.com/investor/announcements>

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**About ViroGates**

ViroGates A/S is an international medical technology company developing and marketing blood test products under the suPARnostic® brand for better triaging in hospitals to improve patient care, reduce healthcare costs and empower clinical staff.

The company was founded in 2000. Headquartered in Denmark, ViroGates' sales force covers the Nordics, Spain, and France, while distributors serve other markets. ViroGates' shares (VIRO) are listed on Nasdaq First North Growth Market Denmark. For more information, please visit [www.virogates.com](http://www.virogates.com).

**About suPAR and suPARnostic®**

suPAR is the biomarker detected by ViroGates' suPARnostic® products and is a protein in plasma, measurable in every human being. suPAR is considered a general risk status biomarker indicating disease presence, disease severity and progression, organ damage and mortality risk across disease areas such as cardiovascular diseases, kidney diseases, type 2 diabetes, cancer, etc. Strong scientific evidence from more than 850 clinical trials and studies show that the higher the level of suPAR, the worse the prognosis for the patient.

The suPARnostic® products can be used to support healthcare professionals in making clinical decisions on hospitalization or discharge of acute care patients. The increasing demands on health systems globally and tightening healthcare budgets necessitate efficiency improvements and innovative solutions in hospitals. The use of suPAR in clinical routine in emergency departments can improve patient care and reduce healthcare costs by increasing the number of discharges by up to 34% and reducing the average hospital length-of-stay by up to 6% without affecting mortality. suPARnostic® TurbiLatex is currently available on Roche Diagnostics' cobas® instruments, Siemens Healthineers ADVIA® XPT and Atellica® instruments and the Abbott Labs Architect™ and Alinity™ instruments, and on the Beckman Coulter AU58000 system. ViroGates works with partners to develop solutions for other platforms.