

Early detection of aggressive prostate cancer

STHLM 3

 Key words: **detection, diagnostics, prostate cancer**


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Main product: **Stockholm3 Test (STHLM3)**

Aim

To predict the risk of aggressive prostate cancer at biopsy by analysing five protein markers, more than 100 genetic markers, and clinical data

KEY FACTS

Project started: 2017

Innovation Community:
EIT Health

Theme:
Early intervention/disease prevention

Funding generated:
EUR 1.8 million

Number of partners: 8

The project

Overview

The Stockholm3 test (STHLM3) is a blood test that increases the detection of aggressive cancers by 20% and, at the same time, reduces the number of unnecessary biopsies by 50% compared to current clinical practice. STHLM3 also identifies men with aggressive prostate cancer with low PSA values (1-3 ng/ml), which is crucial for early detection. The test characteristics are unique and open the door to a new clinical gold standard test.

EIT Health support

EIT Health has been a catalyst for HCP/industry/academia cooperation for testing, validation and market access. It's been a vehicle to accelerate the uptake and acceptance of the concept, and has also supported us with funding.

Groundbreaking innovation

STHLM3 itself is unique. It is a non-invasive blood test that combines five protein markers, over 100 genetic markers, clinical data and a proprietary algorithm to detect the risk of aggressive prostate cancer.

Societal impact

By reducing unnecessary biopsies and treatments by more than 50% and mortality up to 20%, STHLM3 will have a significant positive impact on society by reducing individual harm from over-diagnosis, mortality and overall healthcare costs.

At an individual level, fewer men will have to undertake prostate biopsies, which are painful and can lead to severe infections, and fewer men will receive unnecessary treatments. Most importantly, aggressive cancers will be detected early in more men and give them a greater chance of survival.

At a societal level, the economic burden will be significantly reduced, since there will be fewer biopsies and unnecessary curative treatments, less active surveillance of insignificant tumors, and reduced procedure-related morbidity.

Achievements so far...

STHLM3 has been validated in a clinical study with more than 58,000 participants. The results have been published in numerous scientific

journals, including The Lancet Oncology, Nature Reviews Clinical Oncology and European Urology Focus.

The test has been validated in clinical use in Sweden and Norway, and is being evaluated by the Swedish National Board of Health and Welfare for potential use in a national screening programme by invitation.

Preparations are being made to begin implementation studies in Germany, the Netherlands, Belgium and Finland, and discussions with potential international lab providers have been initiated.

Teamwork

The development of STHLM3 is based on close public/private collaboration between academia, industry and healthcare providers. The research was led by the Karolinska Institute, and the technical platform was provided by Thermo Fisher Scientific. The main study was financed by Stockholm County Council.



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