
Possible Breakthrough in Cardiovascular Disease Diagnostics for Europe and the European Union

2022-12-30

Neuome Peptides Pte. Ltd., a Singapore-based company has established an assay-development platform, powered by machine learning and novel, patented algorithms for the quantifiable detection of biomarkers.

The company successfully designed specific peptides to bind to pre-established, proven biomarkers for Cardiovascular Diseases and is currently developing effective diagnostic assays. The use of small peptides, conjugated with gold nanoparticles, allows a balance of high specificity and sensitivity, giving highly accurate and fast results.

According to the European Heart Network, each year cardiovascular disease causes 3.9 million deaths in Europe and over 1.8 million deaths in the [European Union](#).

This is made possible with the product TruHeart™, a point-of-care assay to diagnose Acute Coronary Syndrome that can give quantifiable results within 3-5 minutes, using a finger-prick sample to test for the crucial biomarkers, Troponins I and T, and Myoglobin (eventually expanding to D-Dimer and Brain Natriuretic Peptide). It is in the advanced stages of R&D and progressing to global clinical trials. It will be submitted for FDA approval and then introduced to the market upon approval.

This product could be a game-changer, allowing patients to affordably screen for this potentially deadly condition conveniently early, in their own home, achieving quantifiable results without needing a laboratory. This more efficiently guides patients to seek appropriate medical attention; those with prevailing heart conditions may also regularly monitor their condition at home. In comparison to industry standards, it will be uniquely affordable; its peptide-coated cartridges will cost only ~USD\$2, while the quantitative electronic reader will cost ~USD\$80. This is in contrast to existing point-of-care

devices also giving quantitative results for cardiac biomarkers, but at device costs of up to USD\$4,500, with cartridges ranging from USD\$18-37.

The company's Scientific Advisory Board includes prominent leaders in this field, such as Padmashri Balram Bhargava, former Director General Indian Council of Medical Research (ICMR). The company has scheduled clinical trials in five hospitals in [India](#) (including the renowned Narayana Hrudayalaya), in the process of securing a large site in the US and five sites in Europe. It is also advanced discussions with A*Star and [Singapore](#)'s National Heart Centre. This is only one of many pipeline products made possible by its patented method of peptide-design. The immediate pipeline includes assays for Prostate and Colorectal Cancers, Dengue, Malaria, and more.

Read the [original article](#) on PR Newswire.