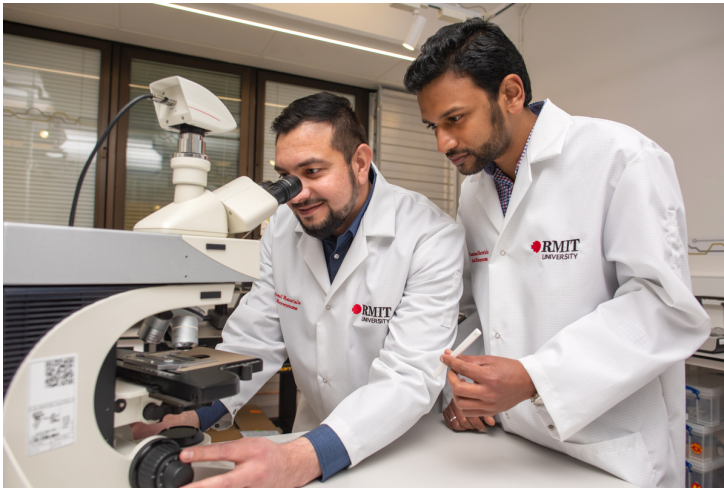


## Hand held device for predicting heart failure based on saliva

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**Could help millions of potential victims take preventative steps to avoid their fate**



Nano-sensors on the tip of the diagnostic stick measure heart disease biomarkers to accurately predict the risk of heart disease, failure or heart attack, then warn users via a simple app.

RMIT University and the Innovative Manufacturing Cooperative Research Centre (IMCRC) in Australia are now researching and developing the device for pilot manufacture, with expectations it will hit market by 2021, in a collaboration led by Melbourne-based start-up, ESN Cleer.

Research Co-Director of RMIT University's Functional Materials and Microsystems Research Group, Professor Sharath Sriram, said this was the first portable heart disease test with such high levels of accuracy.

The sensing technology, developed at RMIT University's cutting-edge Micro Nano Research Facility, was validated in the lab to measure biomarker concentrations a thousand times more precisely than levels in human body fluids.

The IMCRC funding, which matches contributions from ESN Cleer, is enabling a \$3.5 million project investment into addressing the challenge of manufacturing and large-scale production of these diagnostic swabs.