

# New method to assess risk of vascular inflammation for diabetes patients

A team of international scientists from NTU Singapore, Tan Tock Seng Hospital (TTSH) in Singapore, and the Massachusetts Institute of Technology (MIT) has developed a simple method of extracting tiny biological particles from a person's blood and use them as biomarkers to assess the health of their blood vessels.

In a recent scientific paper, the team showed that their method – which uses a small lab-on-a-chip device – can extract these biomarkers and identify diabetes patients who may have significantly higher inflammation of their blood vessels and thus at an increased risk of developing vascular complications.

This new method developed in Singapore could open new ways of categorising the potential risk for diabetes patients early, so that clinical intervention can be made before significant damage is done to the arteries. It also has potential to be used to assess the effect of therapeutics on the arteries.

Over 422 million people in the world have diabetes and in Singapore, 10 per cent of its population (over 400,000) have the metabolic disease, while cardiovascular diseases (CVD) accounted for 18.6 million deaths worldwide in 2019, of which 58% occurred in Asia.