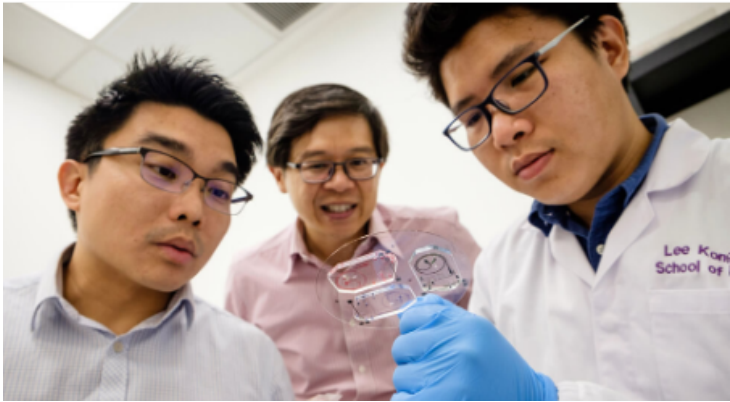


NTU builds chip to analyse health of immune system

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Can identify the health aspects of a person's immune system from a drop of their blood, within minutes



Scientists from Nanyang Technological University, Singapore (NTU Singapore) have developed a lab-on-a-chip system that can identify the health aspects of a person's immune system from a drop of their blood, within minutes.

Using a combination of microfluidics – tiny microscopic channels that can isolate white blood cells from blood – and electrical sensors, the new chip was able to detect differences in the electrical properties of white blood cells taken from healthy and diabetic patients.

The proof of concept device may one day help doctors to quickly gain insight into a person's immune system, and spot early signs of inflammation and infection that could signal the need for further in-depth tests.

Designed and built by Assistant Professor Hou Han Wei and Assistant Professor Holden Li from the School of Mechanical and Aerospace Engineering, their invention, if successful in further laboratory and clinical assessments, could be turned into a portable device suitable for family clinics and polyclinics.