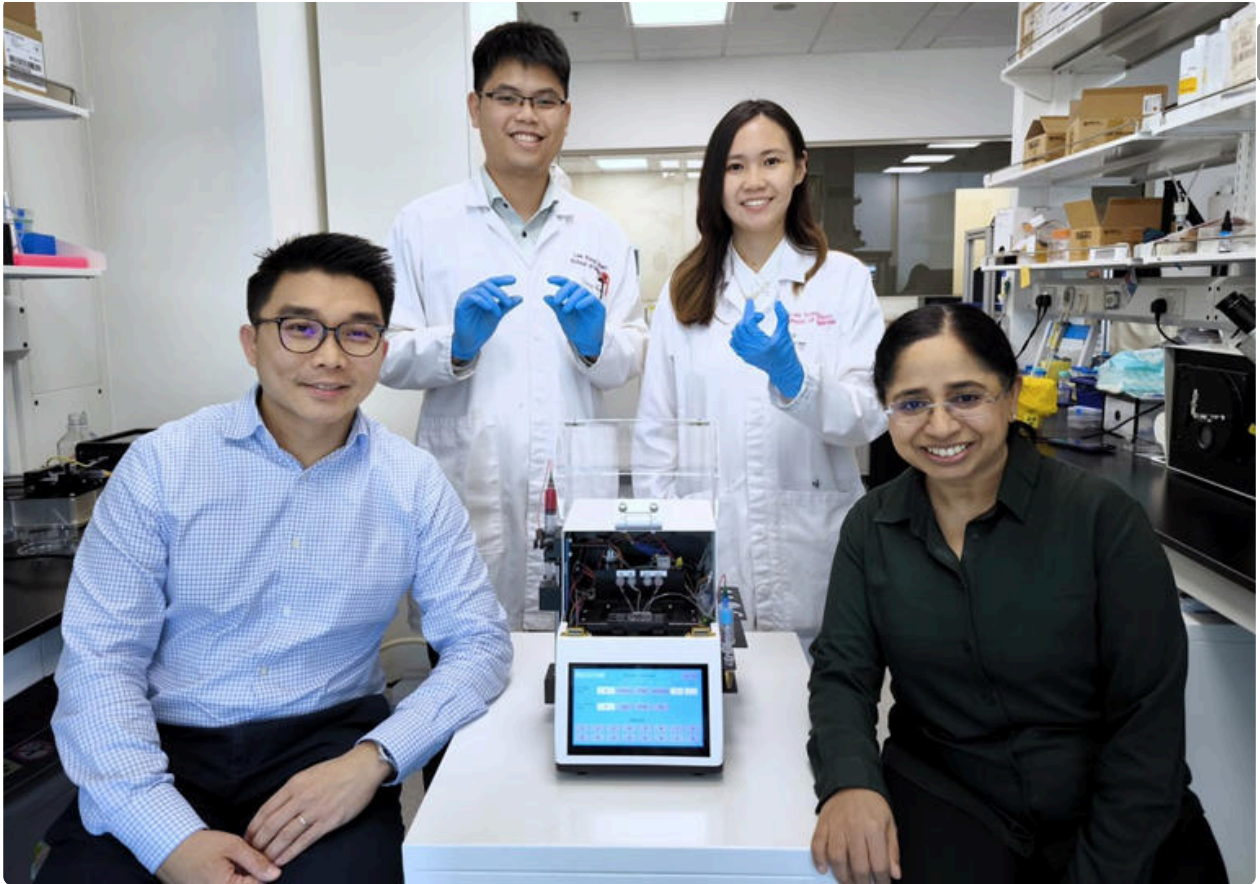


NTU scientists revolutionize blood plasma isolation with ExoArc chip

Story by Jewel Stolarчук • 18h • 🕒 2 min read



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SINGAPORE: Scientists at Nanyang Technological University (NTU) have achieved a groundbreaking advancement in medical technology with the development of the ExoArc chip, a coin-sized device capable of directly isolating blood plasma from a tube of blood in just 30 minutes. This innovation promises to revolutionize clinical analysis and screening for various diseases, including cancer and Type 2 diabetes.

Traditional methods of blood plasma isolation rely on multi-step centrifugation processes, which are time-consuming and less user-friendly. The ExoArc chip, however, streamlines the process into a single step, achieving high purity by removing over 99.9 percent of blood cells and platelets precisely and gently.

The ExoArc chip has been validated in clinical settings by a collaborative effort involving NTU scientists and clinician-scientists from the National Cancer Centre Singapore (NCCS), Tan Tock Seng Hospital (TTSH), and the Agency for Science, Technology and Research (A*STAR).

By analyzing the microRNA profile of blood plasma in healthy individuals and cancer patients, ExoArc