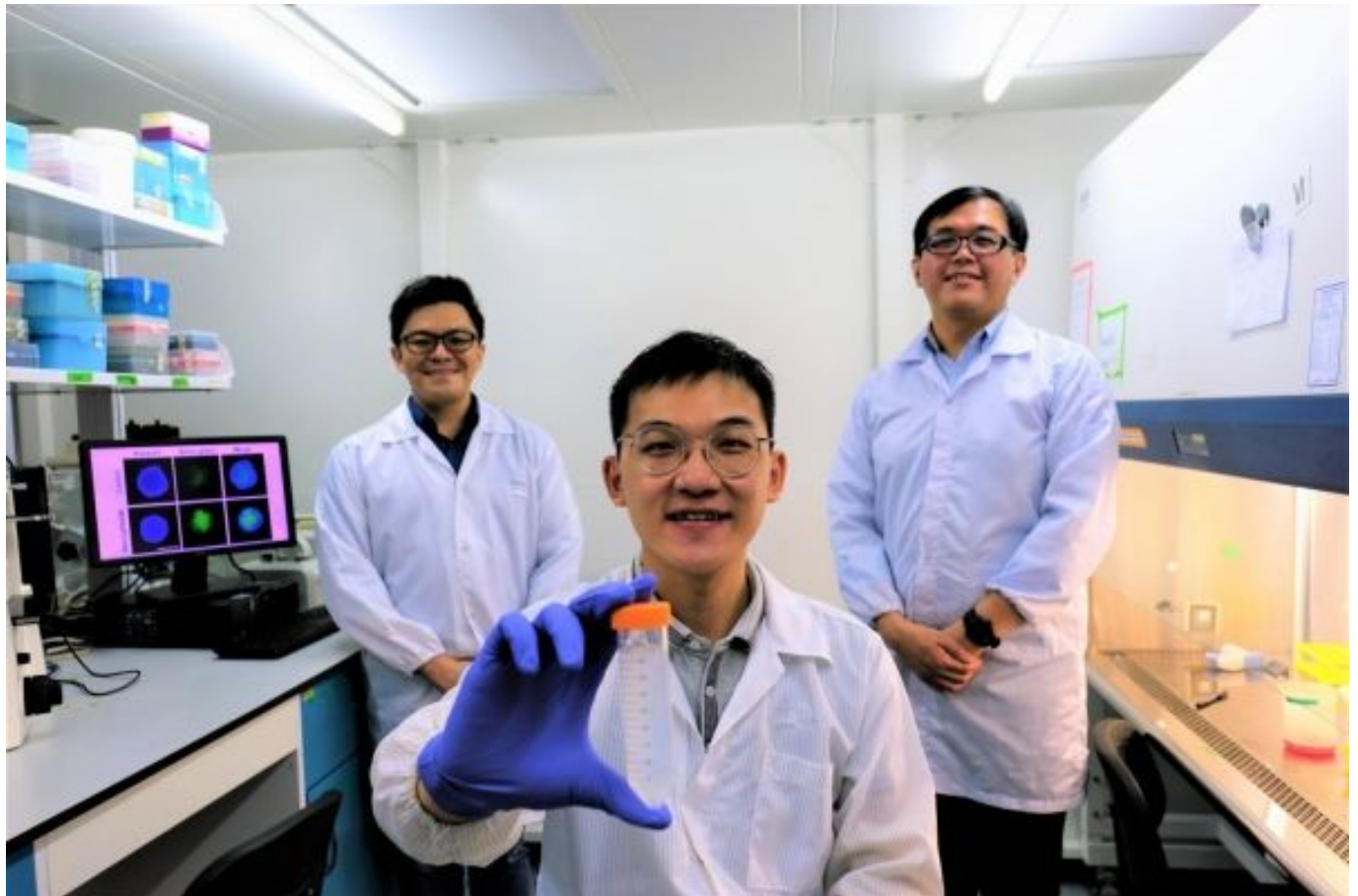


NTU Singapore Scientists Devise 'Trojan Horse' Approach to Kill Cancer Cells Without Using Drugs

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The researchers created their 'Trojan horse' nanoparticle by coating it with a specific amino acid – L-phenylalanine – that cancer cells rely on, along with other similar amino acids, to survive and grow. L-phenylalanine is known as an 'essential' amino acid as it cannot be made by the body and must be absorbed from food, typically from meat and dairy products.

Studies by other research teams have shown that cancer tumour growth can be slowed or prevented by 'starving' cancer cells of amino acids. Scientists believe that depriving cancer cells of amino acids, for example through fasting or through special diets lacking in protein, may be viable ways to treat cancer.

However, such strict dietary regimes would not be suitable for all patients, including those at risk of malnutrition or those with cachexia - a condition arising from chronic illness that causes extreme weight and muscle loss. Furthermore, compliance with the regimes would be very challenging for many patients.