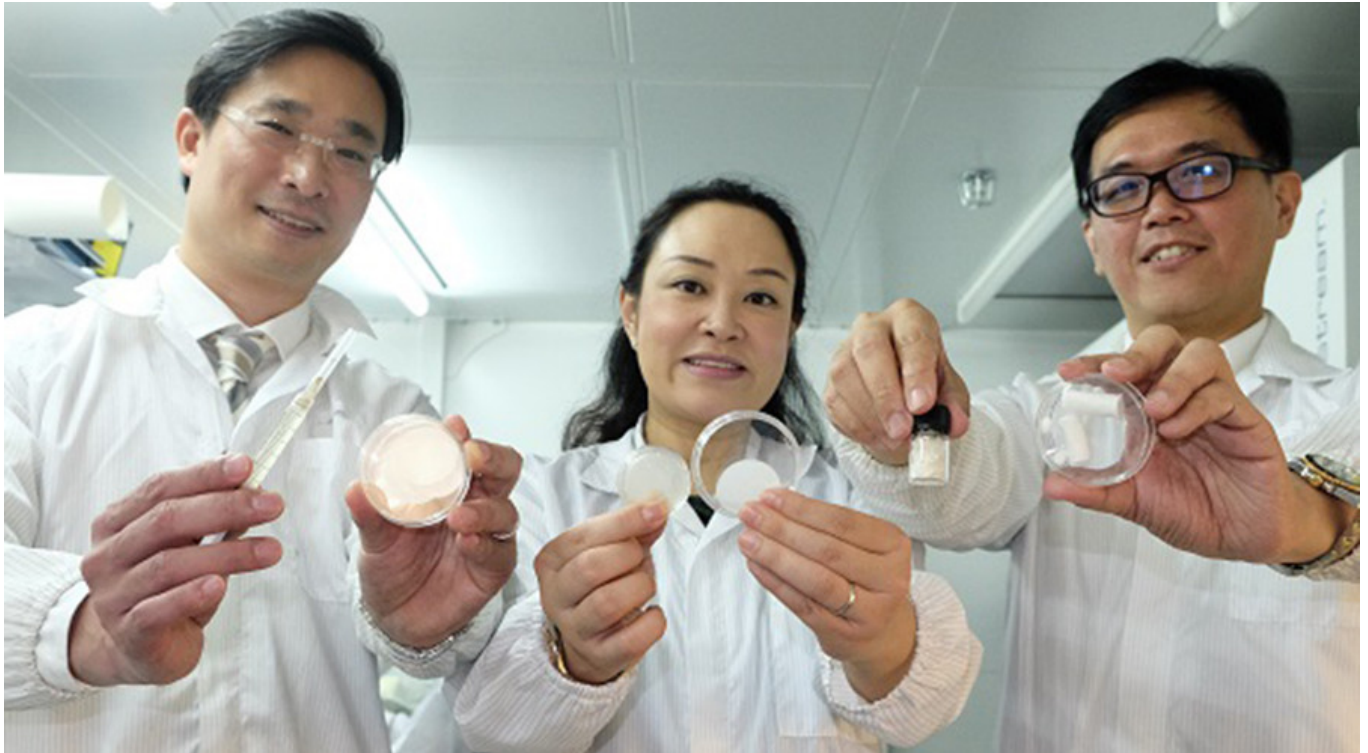


Healing patch from patient's fat could soon be used to treat burn victims, researchers say

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Dr Marcus Wong, Assoc Prof Cleo Choong and Assoc Prof Andrew Tan © Nanyang Technological University

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Assistant professor Cleo Choong, of the School of Materials Science and Engineering at Nanyang Technological University (NTU), pioneered the experiments that involved putting fat tissue through a battery of centrifuges, filters and gas chambers to extract a healing protein known as Angiopoietin-like 4 (ANGPTL4).

The ANGPTL4 reduces the effect of scleraxis, a gene that causes skin fibres in healing wounds to heal parallel to one another rather than as a mesh, turning wounds into layered scar tissue, says associate professor Andrew Tan, one of the project's leaders.

"It could mean that, in future, a surgeon can use the patient's fat and turn it into a healing agent on the spot, to promote faster recovery of the patient's wounds after an operation," Choong said in a [statement](#).

Testing on lab mice has shown promising results.

The miracle protein not only makes scars less visible, but decreases inflammation, strengthens skin, closes wounds and encourages the formation of blood vessels. Those animals treated with ANGPTL4 healed twice as fast from normal wounds compared to untreated mice. Rodents with diabetic lesions healed three times as fast.