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NUS team pioneers a novel technique to deliver biologicals

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Singapore: Researchers at the National University of Singapore have invented a novel technique to administer pain-killers and collagen into the body through a minimally invasive procedure.

The key lies in a simple adhesive patch used to enclose a biological material that creates micrometer-sized porous channels in the skin enabling the biological material to be absorbed.

Lab experiments indicated that this technique could administer drugs faster than the conventional methods. Researchers also said that the patch can be used to penetrate collagen up to the dermis level, in contrast to the current skin care products that can deliver collagen only till the outermost layer of the skin.

Dr Kang Lifeng, department of pharmacy, National University of Singapore, explained, "The microneedle patch consists of very small, almost invisible needles. These needles help in delivering the biological molecules inside the skin to begin their functions."

Researchers said that they have filed a patent for their technique through the NUS Industry Liaison Office. They said that further clinical studies will be conducted to examine the efficacy of delivering collagen for cosmetic and skincare purposes.