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Scientists develop versatile drug delivery system inspired by self-assembling proteins from caterpillars

NTU scientists have developed a versatile drug delivery system, inspired by nature.

Harnessing the self-assembling properties of proteins from moth caterpillars, the researchers created nanosized capsules that can trap and deliver various drugs.

The scientists first identified self-assembling proteins from the tough outer layer of moth caterpillars. The nanocapsules were created using synthetic versions of the proteins.

Compared to other methods, self-assembly is a cost-effective and environmentally friendly way to manufacture nanostructures.

The nanocapsules containing drugs were successfully taken up by cells and can potentially be used for a wide range of biomedical applications, including drug delivery and gene therapy.

The researchers are applying for a patent for their innovation, which was reported in *Nature Nanotechnology*.

Read more at the NTU [Research Hub](#).

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