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New nanotechnology-based cancer therapy to revolutionize chemotherapy

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Breast Cancer Studies

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Researchers of the University of Granada and Edimbourgh have developed a new cancer therapy based on nanotechnology, which promises to dramatically improve current chemotherapy treatments without causing any side effects.

This therapy is based on the encapsulation of a catalyst (palladium) into microspheres, to synthesize artificial materials or activate drugs within human cells, thus avoiding any toxicity.

This system captures palladium within its microstructure. Palladium is a metal not found naturally in human cells that allows catalyzing chemical reactions within cells without altering its basic functions such as protein synthesis and metabolism.

This technique allows to "create" anti-cancer drugs within cells, which could be used for the specific treatment of tumors.

The study was recently published in the journal Nature Chemistry.

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