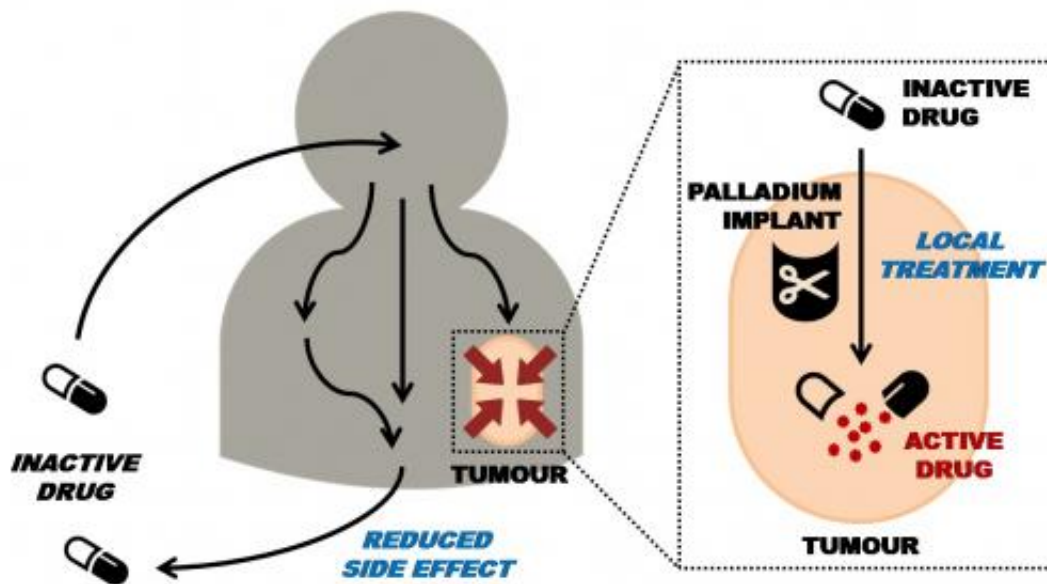


# Metal implants may cut chemotherapy side effects, study suggests

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Scientists have developed modified chemotherapy drugs that are designed to remain inactive until they come into contact with a palladium implant located at the tumor site. The hope is that this approach could help to reduce the side effects associated with treatment by minimizing damage to the rest of the body. Credit: Asier Unciti-Broceta

Cancer patients could one day experience fewer side effects from chemotherapy following a discovery that opens the door for more targeted treatments.

Researchers have identified a possible way of treating tumours that

would see doctors place harmless metal implants at the cancer site.

The discovery could make treatment more targeted than existing therapies, avoiding unwanted side effects, such as [hair loss](#), tiredness and nausea. These occur when [chemotherapy drugs](#) carried in the blood kill healthy cells as well as [cancer cells](#).

The scientists found that they could alter the chemical composition of commonly used [chemotherapy](#) drugs so that they only become active when they come into contact with a metal called palladium.

Researchers hope that by implanting small devices coated with palladium into patients' tumours, the drugs would become activated only where they are needed, causing minimal damage to the rest of the body.

The scientists reported their discovery today in the journal *Nature Communications* but the approach will first need to be tested in animals before it can be studied in patients.

The research was led by scientists from the Edinburgh Cancer Research UK Centre at the MRC Institute of Genetics and Molecular Medicine, the University of Edinburgh.

Dr Asier Unciti-Broceta, who led the study, said: "It will be several years before we're able to start treating patients but we're hopeful that this approach will lead to better tolerated cancer therapies in the future."

Provided by University of Edinburgh

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