

ANTI-CANCER EFFICIENT AND NON-TOXIC COMPOUNDS



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A new study has identified an extended class of **palladium compounds** that includes **vinyl and butadienyl fragments**. In vitro tests proved a **high anti-proliferating activity** on different tumour cell lines, without damaging healthy cells. Further pre-clinical and clinical studies could develop efficient and less-toxic chemotherapies.



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DESCRIPTION:

Chemotherapy has been mostly using platinum-based antineoplastic drugs, in spite of significant nephro- and neurotoxicity. Research in the field has been therefore exploring the potentiality of other transition metals, among which recently come into view **palladium compounds**. The Ca' Foscari team has identified a new extended class of palladium compounds that includes **vinyl and butadienyl fragments**, which proved efficient antitumor action. In vitro tests show high stability, a quick and reproducible synthesis and an effective **anti-proliferating activity** on some of the most aggressive tumours, such as ovarian, colon and breast cancer, achieving very promising results and **poor toxicity** on cells extracted from healthy tissues. Further pre-clinical and clinical tests will better define their potentiality and may be the prelude to a new generation of anti-cancer drugs.



ADVANTAGES:

- High anti-proliferative activity
- Antitumor efficacy higher than cisplatin or other palladium compounds
- Limited toxicity for healthy cells
- Simple and reproducible synthesis protocol

APPLICATIONS:

- Anti-cancer drugs, which can be administered intravenously (most frequently), intramuscularly or subcutaneously
- Anti-cancer drugs, which can be administered orally via pills or tablets