

New therapeutic strategy for metastatic prostate cancer patients resistant to standard treatment

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A team of researchers from the Badalona Applied Research Group in Oncology (B-ARGO) and the Urologic Tumors Unit of the Institut

Català d'Oncologia (ICO) and the Germans Trias i Pujol Research Institute (IGTP) have found a new therapeutic strategy for patients with a specific subtype of metastatic prostate cancer resistant to standard chemotherapy treatment with docetaxel.

In this study, published in the journal [Frontiers in Pharmacology](#), they propose a new treatment based on a combination of kinase inhibitors in patients who inevitably stop responding to [docetaxel](#).

The team found that resistance to this drug is associated with the hyperactivation of the cellular pathways PI3K/AKT and MEK/ERK and have explored the possibility of inhibiting these pathways as a new therapeutic strategy in patients who maintain the function of PTEN, a negative regulatory protein of the PI3K/AKT pathway.

The results of the study have been satisfactory and, for this reason, the team wants to conduct a clinical trial to assess the safety and efficacy of this combination in patients with prostate cancer resistant to docetaxel.

Vicenç Ruiz de Porras and Adrià Bernat-Peguera, ICO-IGTP researchers and co-first authors of the study, state that the results of this study "open the door to a new therapeutic strategy for those patients with PTEN wild-type tumors, who have progressed to docetaxel and in whom, unlike PTEN null [patients](#), the efficacy of AKT inhibitors in monotherapy has not been demonstrated."

More information: Vicenç Ruiz de Porras et al, Dual inhibition of MEK and PI3K β/δ —a potential therapeutic strategy in PTEN-wild-type docetaxel-resistant metastatic prostate cancer, *Frontiers in Pharmacology* (2024). [DOI: 10.3389/fphar.2024.1331648](https://doi.org/10.3389/fphar.2024.1331648)

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