

# VAV3 INHIBITORS TO USE IN THE TREATMENT OF ENDOCRINE RESISTANT BREAST CANCER

**The present invention relates to metal-phosphine complexes, designed to inhibit VAV3 protein, for use in the treatment of hormone independent breast cancer.**

## TYPE OF DEVELOPMENT

Drug.

## DESCRIPTION

Anti-oestrogen therapies are the backbone of Oestrogen Receptor (ER) positive breast cancer, which accounts for 80% of breast cancer cases. Resistance to endocrine therapies is an unmet need with high clinical impact. We have revealed the importance of VAV-3 protein as generator of resistance in this setting.

The invention consist of robust metal-phosphine complexes to inhibit selectively the Zinc finger in the VAV3 protein. These compounds have shown to kill specifically breast cancer cells which are estrogen-independent.

## INDICATION

In a first embodiment the invention relates to organometallic VAV3 inhibitors for use in the treatment of endocrine resistant breast cancer, characterised by ER expression and progression under endocrine treatment.

## NOVELTY/ADVANTAGE

According to preliminary search, there is no info in the literature (PubMED) about any VAV3 inhibitor for the treatment of cancer. We could not find either any patent application about VAV3 inhibitors.



Universidad  
del País Vasco  
Euskal Herriko  
Unibertsitatea

## Research group:

Bioorganic Chemistry and  
Molecular Modeling.

## Main researcher:

Fernando Cossío Mora.

## Contact:

Knowledge/Technology Transfer  
Office, [iproperty.otri@ehu.eus](mailto:iproperty.otri@ehu.eus)

## IPR STATUS

### Patent filing:

Patent pending.

## COOPERATION GOAL

- Sponsored research.
- Out-licensing.