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Protein that makes tumor cells in breast cancer resistant to treatments

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Scientists have found a protein that makes tumor cells in breast cancer resistant to treatments.

Researchers at the Andalusian Institute for Molecular Biology and Regenerative Medicine (CABIMER) and the University of Granada found that cFLIP -an inhibitor of death ligand-induced apoptosis- is not only essential in breast tumor cells resistance to TRAIL treatments (a death ligand with a potent therapeutic potential against cancer), but this protein is also key to the survival of such cancer cells.

They found that a variation in the expression of this protein may lead to the normal development of breast epithelium.

The study analyzed the role of cFLIP in breast cancer cells' resistance to TRAIL-induced apoptosis. Thus, researchers concluded that cFLIP is key in these cells' resistance to TRAIL.

Such conclusion was drawn from the evidence that the inhibition of their expression through treatments with Doxorubicin (anthracycline, widely used in chemotherapy) or with SAHA (Histone deacetylases inhibitor), as well as the silencing of its expression through cFLIP siRNA oligos (small interfering RNA), resulted in the sensitisation of breast cancer cells to TRAIL-induced apoptosis.

The researchers have proved that cFLIP plays a survival role in tumorous and non-tumorous breast epithelial cells, since the inhibition of its expression induces apoptosis. (ANI)

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