

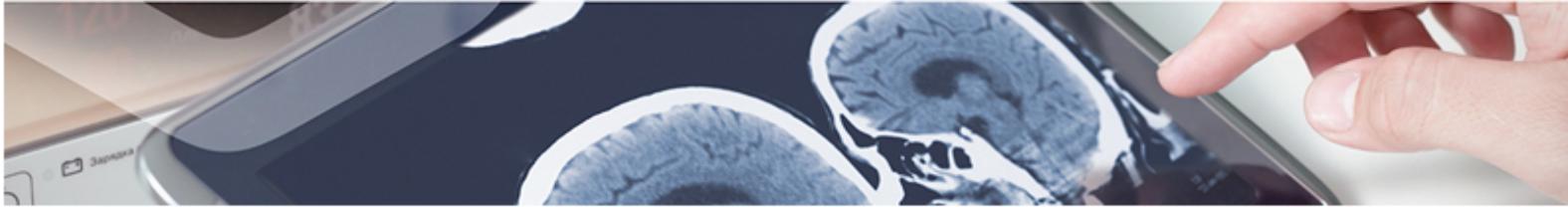


Therapy & Prognosis

GARP as sarcoma molecular target and prognosis biomarker

A Spanish research group proposes to analyze GARP in sarcoma samples as a therapeutic target as well as a new prognostic method for sarcoma with a possible predictive value of the response to chemo and radiotherapy.

Oficina de
**TRANSFERENCIA
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Sistema Sanitario Público de Andalucía



Description

Currently, the treatment for bone sarcoma is multimodal and consists of the application of surgery and chemotherapy, and radiation therapy in cases in which the tumor cannot be removed. However, the poor prognosis of bone sarcomas is correlated to resistance to conventional chemotherapy and radiation therapy.

Patients with GARP-expressing sarcomas show significantly lower 5-year survival rates. Furthermore, bone sarcoma cell lines with high expression of GARP display greater resistance to drug- and radiation-induced cell death. Contrarily, the prognosis of those patients with lower GARP expression is better.

GARP represents a new therapeutic target for the treatment of sarcoma, possibly in combination with both traditional chemotherapeutic agents and radiotherapy. GARP exerts this effect by activating TGF- β , a key mediator in cancer. Currently available TGF- β antagonists do not distinguish between homeostatic and disease-induced TGF- β activity, which leads to a great risk of adverse effects. GARP has a more restricted expression than TGF- β , thus we propose that the use of GARP as a therapeutic target could represent a safer and more efficient way to block the pro-tumorigenic effects of TGF- β in cancer.



Advantages

The beneficial effect of inhibiting the function of GARP would be dual, on one hand due to its antiproliferative activity and on the other by increasing cancer cells sensitivity to both chemo and radiotherapy.



Intellectual Property

The technology is protected by patent application.



Aims

The research group is looking for a partner for the co-development of the technology/ patent licensing



Classification

Area: Therapy & Prognosis
Technology: Drug screening.
Pathology: Oncology. Sarcoma