



Biotech – Pharma (Therapy)

In vitro method for improving the production of exosomes from CAR-T cells

A research group from Andalusian Public Health System has developed a method for improving the production of exosomes (EXO) from CAR-T cells by modifying the expression of specific genes.

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Description

Exosomes (EXOs) are defined as small charged vesicles secreted by all cell types. Their great therapeutic potential has recently been described, mainly due to their ability to act as vehicles for drug delivery at different organ levels and situations.

One of the most innovative applications in immunotherapy is the production of EXOs from cells of therapeutic interest, such as T lymphocytes and especially CAR-T cells. However, at present, the yield of EXOs is limited and, in general, the number of EXOs produced is below the required amount.

The present invention focuses on solving this problem and provides an innovative method based on genome editing techniques to improve the production of EXOs from CAR-T cells.



Intellectual Property

The technology is protected by a European patent application.



Aims

The research group is looking for a collaboration agreement for further development or a licence agreement.



Classification

Area: Gene therapy

Pathology: Blood and lymphatic system



Advantages

The invention aims to achieve an improvement on existing protocols by stimulating the expression of genes involved in exome production. This would improve any existing extraction method to date.