cnio INNOVATION

Method for eliminating cancer cells

The CNIO has developed a gene-editing based cancer treatment where cancer cells are selectively eliminated.

Industrial partners are being sougth to collaborate through a patent license agreement for the development and exploitation of the technology.

Description

The inventors have found a novel method for eliminating cancer cells, wherein said cells comprise a genomic rearrangement which leads to genomic amplifications. The present invention provides a way to eliminate cancer cells specifically using endonuclease(s) that cleave the genome at specific sites, which results in a selective elimination of the cancer inducing gene and thereby elimination of the cancer cells.

Main innovations and advantages

The inventors have found a simple and straightforward way to design a treatment which is universal (not patient specific). For those cancers where there is a fusion gene and fusion protein, the present invention allows the truncation or the elimination of the fusion protein, which in turn leads to the death of the cancer cell. The present invention provides a therapy with minimal side effects since the modification of the coding regions of the genome will only take place in cells carrying the genomic rearrangement, i.e. in cancer cells.

Intelectual property

Patent title :

"Gene editing based cancer treatment"

Applicants: Spanish National Cancer Research Center (CNIO) and

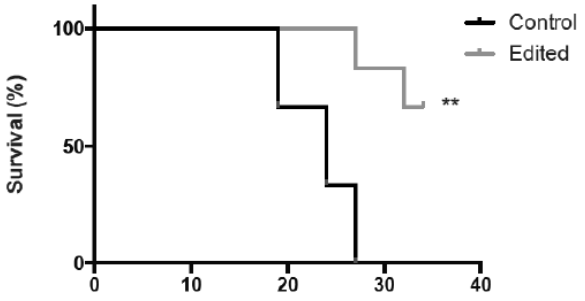
Josep Carreras Leukaemia Research Institute (IJC)

International patent application:

WO2020079243 (A1)

Patent extended in:

Canada, Europe, Japan and USA.



For more information, please contact:

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