USE OF PI3K INIBITORS FOR THE TREATMENT OF OBESITY, STEATOSIS AND AGEING

The inventors have found a method to treat or prevent diseases such as obesity, obesity-associated diseases or conditions, steatosis and biological aging by using a phosphoinositide 3-kinase (PI3K) inhibitor.

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

Description

The CNIO has developed a method to treat or prevent diseases or conditions associated with the expression of peroxisome proliferator-activated receptor gamma coactivator 1-a (Pgcl a) and/or uncoupling protein 1 (Thermogenin or Ucp1) in brown adipocytes, by the use of a phosphoinositide 3-kinase (PI3K) inhibitor (PI3Ki).

Main innovations and advantages

The present invention has surprisingly found the impact of PI3K signalling in the brown adipose tissue and in mammalian longevity. The PI3Ki of the present invention activate brown adipocytes *in vitro* and decrease body weight in obese mice.

The PI3Ki of the present invention are useful in the treatment or prevention of obesity, obesity-associated diseases (such as type 2 (adult-onset) diabetes, high blood pressure, stroke, heart attack, heart failure, gallstones gout and gouty arthritis, osteoarthritis, sleep apnea and Pickwickian syndrome), steatosis, and also in reducing ageing.

Intelectual property

Patent title :

"Use of PI3K inibitors for the treatment of obesity, steatosis and ageing"

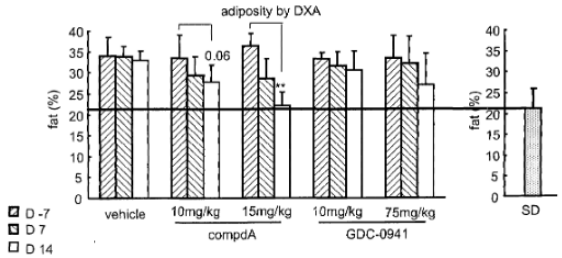
Applicant: Spanish National Cancer Research Center (CNIO)

International patent application:

WO2012052730 (A1)

Patent granted in:

Europe and USA



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