

## A new product to reduce obesity in humans

A new molecule that reduces the lipid content in humans has been discovered. This allows the treatment of obesity and other pathologies where an abnormal accumulation of fat is present, like fatty liver disease (FLD). The lack of decisive therapeutic approaches for these high-prevalent diseases raises the need for alternative treatments.

### The need

Obesity is a multifactorial metabolic disorder that is associated with a cluster of chronic and progressive diseases. There are few treatments that produce modest weight loss but little is known about how these drugs affect longer-term complications of obesity. Bariatric surgery is the most effective procedure, however, due to its costs and the risk of complications, other effective yet less invasive treatments are needed.

### The solution

Low plasma levels of the identified molecule are found in metabolic disorders and predict an increased risk of developing type 2 diabetes and cardiovascular disease. Beyond this biomarker role, it has been demonstrated that it plays a role in the development and progression of these diseases by reducing the lipid content in human hepatocytes and adipocytes due to its role as lipolytic agent and inhibitor of the lipogenesis. So, this can be a good approach for the treatment of obesity and related illnesses.

### Innovative aspects

- In contrast with current treatments for overweight, which act preventively by reducing lipids absorption (orlistat) or suppressing the appetite (lorcaserin, phentermine), here it is proposed a treatment to actively reduce lipid accumulation in human tissues.
- This is the first time this molecule is found to be a therapeutic target for diseases where an abnormal accumulation of fat is present in different tissues, such as overweight, obesity or fatty liver disease.

### Stage of development

- It has been demonstrated in vivo that overexpression of this molecule reduces body weight increase in a genetically induced and in a diet induced obesity models.
- The results were validated in, human hepatocytes, human adipocytes and human liver biopsies.
- We are currently seeking for an appropriate way of administration in humans, depending on the disease that needs to be targeted.

### Market

Obesity is the most important metabolic disease worldwide. It reaches epidemic proportions in both developed and developing countries, affecting adults, adolescents and children. It is estimated that 1 billion overweight and 500 million obese worldwide. Obesity and overweight can lead to complications such as fatty liver, diabetes and cardiovascular disease.

#### IP:

- PCT patent application
- Patent rights up to  $\geq 2033$

### WE ARE LOOKING FOR...

Partners to license or co-develop this technology as a therapy or for cosmetic indications.

### CONTACT DETAILS

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