Peptide for the prevention and treatment of aneurysm

CSIC and the Research Institute of the Hospital de la Santa Creu i Sant Pau (IRHSCSP) have identified a compound that could be used in the treatment and prevention of aneurysm, increasing survival rate.

Industrial partners from the pharmaceutical industry are being sought to collaborate through a patent licence agreement.

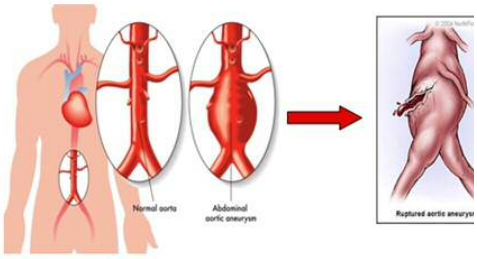
An offer for Patent Licensing

Innovative therapy for abdominal aortic aneurysm

An aneurysm is the enlargement of an artery caused by weakness of the arterial wall. Most aneurysms do not cause symptoms and are not dangerous. However, at their most severe stage, some can rupture, leading to life-threatening internal bleeding. Different types of aneurysm can be found depending of their anatomic location being Abdominal Aortic Aneurysm (AAA) one of the most common forms. This type of aneurysm, most often found in men over age 65, has a prevalence that reaches the 8%. Nevertheless, once the rupture of the aneurysm happens, it is lethal in 80% of the cases.

There are currently no pharmacological strategies to limit the development of AAA. The only therapeutic measure available is surgical intervention of those aneurysms with a high risk of rupture. Although it has been suggested that statins, doxycycline, COX-2 inhibitors or the angiotensin converting enzyme inhibitors, among others, could reduce the progression of AAA, none of them have conclusively demonstrated clinical benefit.

The protected compound has shown beneficial effects on a murine model of aneurysm, where it was capable of inhibiting the development of aortic aneurysms and increased the survival rate by targeting specifically mitochondrial stress.



Compound tested limits AAA incidence and improves survival in a model of aortic aneurysm induced by angiotensin II infusion (Ang II) in ApoE$^{-/-}$ mice.

Main innovations and advantages

- The compound has shown significant efficacy in:
  - reducing the incidence and severity of aortic aneurysms,
  - limiting aortic dilation
  - preventing aortic remodeling and elastin fiber rupture
  - preventing vascular apoptosis
- This compound could provide the first therapeutic tool to prevent aortic dilation and to limit AAA incidence.

Patent Status

European patent application filed

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