

Portugal

Electronic modulation used in rats to treat diabetes

Scientists at the CEDOC-NOVA Medical School, Lisbon, Portugal, have found a therapy that could provide a way for patients to manage type 2 diabetes with fewer side-effects.

In partnership with Galvani Bioelectronics, the team found that is possible to improve insulin resistance and normalize sugar levels in blood, by modulating electrically the carotid sinus nerve (CSN) in rats - the nerve that connects the carotid body with the brain.

The carotid body is an organ that regulates insulin sensitivity and its dysfunction is involved in the development of metabolic diseases.

This research showed that is possible to maintain glucose homeostasis in animals in which electrodes have been implanted in the CSN and submitted to electrical modulation, without significant adverse effects. Also, it was shown that the electrical modulation is reversible.

It could provide a long-term management of the disease with few adverse effects and interference with daily activities.

Read more: <http://cedoc.unl.pt/solutions-view/electronic-modulation-can-be-used-as-a-treatment-for-type-2-diabetes/>

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Institutional statement:

“The use of animals has been essential to understand the mechanisms underlying chronic diseases. NOVA Medical School is committed to proving open and transparent information about its research involving animals and the standards of animal care and welfare carried out in the institution. For us signing the Portuguese Transparency Agreement has helped to demonstrate our engagement in a dialogue with the society to improve the level of understanding the reasons why animals are still needed for biomedical research.”

Ana Isabel Moura Santos

Vice-Dean of NOVA Medical School

President of FELASA

President of the Animal Welfare Body at NMS