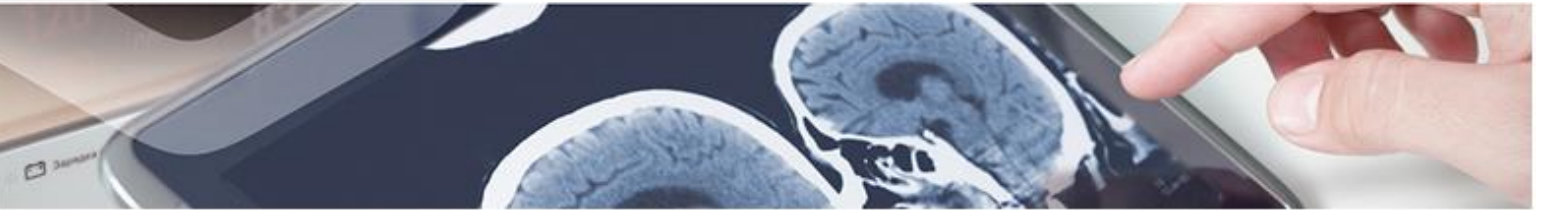




## Treatment

# Prebiotic composition of essential oils and L-carnitine

A research group from the Biomedical Research Institute of Malaga and Nanomedicine Platform (IBIMA Plataforma Bionand), the University of Malaga (UMA) and the Center for Biomedical Research Network (CIBER) has developed a composition of essential oils and L-Carnitine against cardiometabolic diseases.



## Description

Currently, ischemic heart disease (IHD) and diabetes mellitus type 2 (DMT2) are two problematic health conditions worldwide. These diseases are closely related due to the association between metabolic status and cardiovascular risk. Previous studies in both diseases suggest a relationship between gut microbiota and these pathologies.

The consumption of the Mediterranean diet has anti-inflammatory and antioxidant properties. In addition, it has been related to an increase in beneficial bacteria, such as those related to the production of short-chain fatty acids of great importance for health. However, it has been observed that these beneficial effects are limited, so it is necessary to design new nutritional strategies, such as the development of nutraceuticals.

For this reason, a research group has developed a composition of essential oils from plants typical of the Mediterranean diet together with L-carnitine.

One of the examples of the effect of these nutraceutical formulas on the microbiota is the reduction of proatherogenic substances of bacterial origin, such as TMAO, which are associated with the development of cardiovascular diseases.

In addition to the beneficial effects of the Mediterranean diet, these formulas based on essential oils have specific effects on cardiometabolic diseases such as IHD and DMT2.



## Advantages

- Allows a prebiotic improvement on intestinal microbiota in relation to IHD and DMT2.
- Has beneficial effects on IHD and due to its anti-inflammatory and antioxidant activity.



## Industrial Property

This technology is protected by a European patent application with international extension.



## Objectives

Collaboration is sought for the development and exploitation of the technology.



## Classification

**Area:** Treatment

**Pathology:** Various