

COMPOSITIONS OR COMBINED PREPARATIONS OF ESSENTIAL OILS AND L-CARNITINE

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

The Need

Ischaemic heart disease (IHD) and type 2 diabetes mellitus (T2DM) are currently two problematic health conditions worldwide that are closely related due to the association between metabolic status and cardiovascular risk. Previous studies in both diseases suggest a link between gut microbiota and these pathologies.

The consumption of the Mediterranean diet has anti-inflammatory and antioxidant properties. In addition, it has been linked to an increase in beneficial bacteria, such as those involved in the production of health-important short-chain fatty acids. However, these beneficial effects have been found to be limited.

The Solution

For this reason, a research group has developed a composition of essential oils from plants found in the Mediterranean diet together with L-carnitine. One example of the effect of these nutraceutical formulas on the microbiota is the reduction of pro-atherogenic 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 essential oil-based formulas have specific effects on cardiometabolic diseases such as IHD and T2DM.

Innovative Aspects

- Enables prebiotic enhancement of gut microbiota in relation to IC and T2DM.
- Has beneficial effects on IC and T2DM due to its anti-inflammatory and antioxidant activity.

Stage of Development:

Validated in a gnotobiotic murine model carrying colonic microbiota derived from patients with IHD and T2DM.

Intellectual Property:

- Priority European patent application filed (October 14, 2022)
- Suitable for international extension (PCT application)

Aims

Looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this asset.

Contact details