

New Phenolipids compounds from olive cultivars adapted to Brazilian environmental conditions

Development of new phenolipids based on olive pomace phenolic compounds resulting from olive cultivars adapted to Brazilian environmental conditions

ABSTRACT

This project aims to develop new phenolipids to be applied as biological active compounds or as improved antioxidant compounds for food and/or cosmetic emulsions, using as raw material olive pomace phenolic compounds obtained from olive cultivars adapted to Brazilian environmental conditions.

The health effects of both the phenolic compounds recovered from olive pomace and the respective phenolipids obtained by synthesis will be assessed concerning to their in vivo anti-inflammatory activity.

Brazil, by means of research institutions such as Brazilian Agricultural Research Corporation (Embrapa) and Agricultural Research Company of Minas Gerais (EPAMIG), with support of Ministry of Agriculture, Livestock and Food Supply (MAPA), has encouraged the expansion of olive culture in the country. This is especially true for Minas Gerais and Rio Grande do Sul States, where one can find regions with favorable edaphoclimatic conditions to olive growing.

Obtaining phenolipids from phenolic compounds extracted from agroindustrial waste represents a viable alternative to expand the use of olive pomace, the main by-product from the extraction of extra virgin olive oil (EVOO).

Recovery and characterization of olive-pomace phenolic compounds have been studied in the last few years. However, as far as we know, there are no reports on the application of these natural antioxidants in the development of new high added-value products, such as the phenolipids proposed in this project.

Description indicative de l'organisation et calendrier du projet

Management Committee, constituted by the French and Brazilian leaders, Pierre Villeneuve and Adelia Faria-Machado, respectively, will perform project management and coordination of the interdisciplinary teams. Management and coordination activities will be part of a Management Action Plan, MAP.

In order to facilitate the management and coordination of the activities involved in the different project steps, the scientific activities will be arranged within 2 action plans (AP) which will be under responsibility of the team members, according to the research area of each member.

The first AP will aim the recovery and characterization of phenolic compounds from olive pomace produced in Minas Gerais and Rio Grande do Sul.

The second AP will be dedicated to the activities of obtainment, characterization and antioxidant activity evaluation of phenolipids. This AP will also include the evaluation of in vivo anti-inflammatory activity for phenolic compounds and the respective phenolipids.

Year : 2015

Project number : 1503-004

Type of funding : AAP EMBRAPA

Project type : AAP

Research units in the network :

Start date : 2016-08-01

End date : 2019-08-31

Flagship project : no

Project leader : Pierre Villeneuve

Project leader's institution : CIRAD

Project leader's RU : IATE

Budget allocated : 39280 €

Total budget allocated (including co-financing) : 78560 €

Funding : Labex