



Master project 2024-2025

Personal Information

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Project

Web development & bioinformatic tools

Project Title:

A database of olive oil degradation products

Keywords:

Olive Oil, Database, QSAR, Computational chemistry, Gastronomy

Summary:

The aim of the project is to create databases of the natural molecules identified in both Extra Virgin Olive Oil (EVOO) and regular oil as well as sub-products generated upon heating with information regarding its structure, physicochemical properties and reactivity descriptors, and predicted toxicity. The project will be carried out in collaboration with the Polyphenol Research group at the University of Barcelona.

Expected skills:

Database creation, management and exploitation skills, computation of QSAR properties.

Possibility of funding:

To be discussed

Possible continuity with PhD:

To be discussed

Comments:

This project will be carried out in collaboration with the Polyphenol Research Group that is in charge of the experimental part. The main objective of the project is to identify possible toxic effects of degradation products that appear as a consequence of heating the olive oil during a cooking process. Although some of them are already known, there aren't studies comparing the use of different oil qualities (Extra virgin, virgin or regular). The aim of the project is to identify differences between them.