

GROUP NAME: MEDITERRANEAN DIET

CODE : B16_23R



Over the past years, our research group has been working on the experimental prevention of arteriosclerosis by employing basically nutritional strategies. For this purpose we have used the apolipoprotein-E-deficient mouse as an animal model for the accelerated development of arteriosclerosis and non-alcoholic fatty liver disease (NAFLD). We have been able to demonstrate the efficacy of extra virgin olive oil and its minority components (squalene, along with terpenic and phenolic compounds) as well as of nuts in preventing the onset of both pathologies, and we have studied some of the molecular mechanisms involved in them. We have also investigated the antioxidant effect of squalene on intestinal pathologies such as inflammation and cancer.

LINES OF RESEARCH

- Studying the ranges and mechanisms of the anti-steatosis action of squalene on an animal model following a Western-type atherogenic diet.
- Ascertaining which protein or proteins transport squalene
- Studying the behavior of human liver cell lines in cultures
- Characterizing samples of plant residues stemming from the agrifood industry
- Analyzing the effect of such samples on colon cancer.
- Studying the combined effect of plant samples and pharmaceuticals on colon cancer
- Investigating the potential protective effects of plant samples on intestinal barrier integrity.

NOTABLE PROJECTS

- PID2022-136414OB-I00 "Searching for molecular mechanisms of in vitro and in vivo squalene action". AEI. (1/09/2023 - 31/08/2027).
- PID2019-104915RB-I00 "Searching for molecular mechanisms of in vitro and in vivo squalene action". AEI. (1/06/2020 - 31/05/2023).
- SOE1/P1/E0123 "Potential technological alliances to complete the cycle of agro-industrial and forest production. (REDvalue)". UE-SUDOE. (01/07/2016-30/06/2019).

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