Olive oil as a source of HYDROXYTYROSOL: a molecule with great pharmacological potential

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Final Degree Project
Food Science and Technology (UAB)
2022-2023

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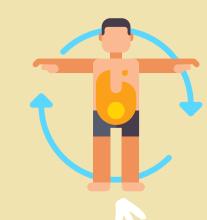
OBJECTIVES

- 1. Olive oil background and hydroxytyrosol analysis and description.
- 2. Gather accurate data from scientific studies about the beneficial effects of the molecule, selecting the most relevant information.
- 3. Learn about the current applications of the molecule in different fields.

DIABETES

Insulin secretion
Pancreatic cells damage
Cell glucose assimilation
Hepatic insuline resistance





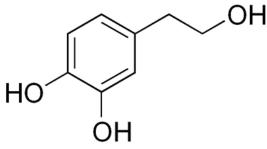
METABOLIC SYNDROME

Blood lipid profile
Prevention: Adiposity, blood
pressure, blood glucose,
inflammatory states

NEUROLOGICAL DISEASES

Tissue damage
Alzheimer: Senile plaque
Parkinson: α-synuclein
Depression





- Oleuropein derivative poliphenol
- Cathecol, primary alcohol
- Still under study, unknown parameters. Few applications.



CANCER

DNA damage
Apoptosis inducement
Cholangiocarginoma
Cancerous cell viability
Carcinogenesis



LYMPHEDEMA

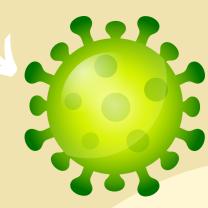
Inflammation: Leukotriene B4 Tissue damage

CARDIOVASCULAR DISEASES

Atherosclerosis
Blood lipid profile
Endothelial dysfunction
Platelet aggregation
Adipogenesis







ANTIVIRAL AND ANTIMICROBIAL EFFECTS

LAB and other bacteria inhibition Enveloped viruses SARS-CoV-2

HIV: AIDS

CONCLUSIONS

- 1. Hydroxytyrosol is an incredibly healthy contribution to the <u>Mediterranean diet</u>, and a food asset to the Spanish population, due to its wide access to olive oil. <u>Extra virgin olive oil</u> is a great source of hydroxytyrosol, and the molecule's fast metabolism and easy distribution makes it a subject of interest.
- 2. Hydroxytyrosol has promising properties, either for treatment, prevention or symptom palliation of a great variety of diseases. The molecule's non-toxicity makes it a <u>potential</u> <u>candidate to be used in the healthcare system</u>.
- 3. Only used in <u>non-medical</u> fields. Expectation of expansion due to further conclusive research.