

# **THE EFFECTS OF THE SUCCINATE-SUCNR1 AXIS IN FOAM CELLS IN THE CONTEXT OF ATHEROSCLEROSIS**

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Final Degree Project

Degree in Biochemistry and Molecular Biology

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The effects of the Succinate-SUCNR1 axis in foam cells in the context of Atherosclerosis

**About the project:**

The project has been performed based in the internship on the Diabetes and Metabolic Associated Diseases (DIAMET) research group of the Institut d'Investigació Sanitària Pere Virgili (IISPV) of Tarragona, Spain.

The traineeship was directed by Dr. Sonia Fernández Veledo and supervised and by Dr. Lúdia Cedó Giné.

This final project is **CONFIDENTIAL**, for more information contact Dr. Sonia Fernández Veledo ([sonia.fernandezveledo@gmail.com](mailto:sonia.fernandezveledo@gmail.com) or [sonia.fernandez@iispv](mailto:sonia.fernandez@iispv)) or Nerea Alonso Bastida ([nerea.alonso@estudiants.urv.cat](mailto:nerea.alonso@estudiants.urv.cat) or [nereaalonsobastida19@gmail.com](mailto:nereaalonsobastida19@gmail.com))

**Summary of the confidential final degree project:**

Atherosclerosis (AS) is an inflammatory disease characterized by lipid deposition. Succinate is a metabolite that acts as a signalling molecule through its receptor SUCNR1, and is increased in inflammatory diseases. Succinate-SUCNR1 axis is important for the regulation of the inflammatory response, however, whether succinate-SUCNR1 signalling plays a key role in AS, is still unknown. Since succinate is elevated in cardiometabolic diseases, we hypothesize that succinate-SUCNR1 axis is implied in foam cell formation. We aim to evaluate the succinate-SUCNR1 axis as regulator of foam cell formation, and to assess the utility of succinate as a biomarker in the context of AS.