Universidad de Navarra
Facultad de Ciencias

MASTER'S DEGREE IN BIOMEDICAL RESEARCH
Research Project Proposal
Academic year 2024-2025

Project Nº 37

Title: Plasma biomarkers predictive of Parkinson's disease in prodromal phases: proteomic study.

Department/ Laboratory *Laboratory where the project will be carried out indicating Department, Area, Faculty, CUN, CIMA etc.*
Neurología CUN

Director 1 *Name and surname of the director (If there will be two co-directors indicate both)*
Contact: Maria Cruz Rodríguez Oroz
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Codirector:
Contact: *Contact e-mail*

Summary *Short summary of the project with a **maximum extension of 250 words**, including the goals and the methodology that will be used*

The aim of this study is to analyze different molecules (proteins, enzymes, antigens, interleukins, etc.) present in the blood that could serve as diagnostic biomarkers for different diseases. Through a study, blood samples have been obtained from patients with Parkinson's disease, prodromal diseases (Hyposmia and REM sleep behavior disorder), Alzheimer's disease and controls. These samples will be characterized using Olink technology, which allows for the differentiation of a multitude of components present in the blood.
Finding an effective biomarker to differentiate rapidly between the different diseases, would represent a significant advancement in medicine, as it would reduce the costs and time of tests, thus providing a simpler way to diagnose patients correctly. Thanks to Olink technology, a wide variety of different components can be analyzed with the goal of finding one that is differential for these diseases. In this study, blood molecules that are most susceptible to changes will be selected, and statistical analysis of all these components will be performed to identify significant differences.

yes	
no	X

Does the project include the possibility of supervised animal manipulation to complete the training for animal manipulator? NO