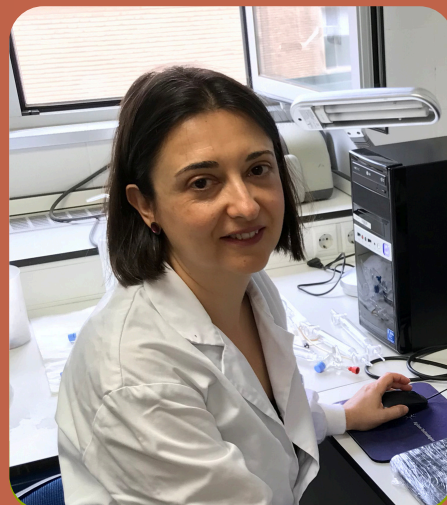


Patricia Ferreira Neila

She completed her doctoral thesis at the Margarita Salas-CSIC Biological Research Centre in the Lignocellulosic Biomass Biotechnology group, with stays at the universities of Wageningen and Zaragoza. She continued her training at the College of Medicine of Drexel University (USA) and returned to the CIB-Margaritas Salas as a contracted researcher. Currently, she holds the position of Associate Professor of Biochemistry and Molecular Biology and is the principal investigator of the Biochemistry, Biophysics and Computational Biology Group (GBsC) at BIFI, University of Zaragoza, a CSIC Associate Unit.



Research profile

Currently, she is the principal investigator of the group “Flavoenzymes: mechanism of action and Biotechnology”, focusing her research on the mechanisms of action of proteins of interest. She uses biochemical, biophysical and bioinformatics approaches for the expression, purification and characterization of proteins. She focuses on identifying new enzymes, especially oxidase-type oxidoreductases, with applications in industrial biocatalysis and in the study of enzymatic cascades. In addition, she investigates the molecular basis of neurodegenerative mitochondrial disorders associated with mutations in the human Apoptosis Induction Factor, looking for new therapeutic avenues of action.

Importance of her research

Biotechnology is essential to move towards a sustainable society and a circular economy. The search for new biocatalysts allows the development of synthesis methods in the chemical industry that reduce energy demand and environmental impact, such as enzymatic oxidations of alcohols to produce aldehydes, used in flavours, drugs, cosmetics and food ingredients. In biomedicine, understanding the molecular basis of the Apoptosis Induction Factor, which is related to various diseases, is essential for basic and applied science, improving the diagnosis and treatment of associated disorders.

