Instituto Universitario de Investigación
Biocomputación y Física de Sistemas Complejos
Universidad Zaragoza

Teresa Bes Fustero

She did her PhD thesis at the University of Zaragoza, with stays at CSIC, University College Dublin and the University of Arizona, focused on the regeneration of pyramide nucleotides. After working in industry, I did a postdoc at the universities of Exter and Cöttingen. She rejoined the Structural Biology group in Zaragoza with a Marie Curie fellowship. She has been a full professor since 2010, accredited to full professor in 2024, and she teaches Biotechnology. She has been a member of BIFI since 2003.

Researcher profile

Her research focuses on bacterial transcriptional regulators, especially cyanobacteria, and their mechanisms of action. She studies redox characteristics and how certain metabolites and chemical compounds affect the activity of FUR regulators, which control vital. In addition, I identify and characterize other regulators modulated by FUR, establishing regulatory networks in cyanobacteria. She co-directs the reference groups Structural Biology (E35_23R) of the Government of Aragon and tutor undergraduate and PhD students.

Importance of her research

Cyanobacteria are essential to the global ecosystem and key models in studies of metabolic and physiological processes of photosynthetic organisms. They are used in the production of biofuels, bioremediation of contaminated sites, biofertilizers in agriculture, supplements in animal feed and aquaculture, and in the pharmaceutical, food and cosmetic industries. Studying metabolism and regulation is crucial to understand their role in the environment, the impact of climate change, harmful algal blooms and their potential in biotechnological applications.