



MINISTERIO
DE CIENCIA, INNOVACIÓN
Y UNIVERSIDADES



CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA



INSTITUTO DE
TECNOLOGÍA
QUÍMICA



EXCELENCIA
SEVERO
OCHOA
07/2013-06/2017
07/2017-06/2021
2023-2026



HR EXCELLENCE IN RESEARCH

PhD Research Fellowship in Photochemistry for Biological Applications

(contratos predoctorales con cargo a las ayudas asociadas a los proyectos PID2024)

A 4-year PhD position is available in the area of “Photochemistry of Biomolecules” at the Instituto de Tecnología Química (a joint center between the Universitat Politècnica de València and the Consejo Superior de Investigaciones Científicas).

The main efforts during this PhD project will be directed to counter the photobiological risk of sunlight irradiation and its harmful consequences, such as skin cancer or aging. Light&MetaboloDNA aims at establishing the photoreactivity of primary DNA lesions induced by metabolites of endogenous or exogenous compounds. This project represents an excellent opportunity to advance in the knowledge of DNA (photo)lesion formation and of their implication in mutagenesis. This investigation will lead to the characterization of new DNA lesions with unknown biological impacts. The developed research will be at the "frontiers of knowledge", using an interdisciplinary approach between chemistry, biology, physics and medicine.

The PhD student will be part of the Catalysis for Sustainable Organic Reactions' group (<https://catsusorg-itq.webs.upv.es/>), and will receive a multifaceted experimental training, which encompasses a formation in organic synthesis, spectroscopic techniques (ie. steady-state and time-resolved emission, laser flash photolysis in the nanosecond-microsecond timescale), analytical techniques and characterization (HPLC, GC, HRMS, hyphenated techniques, NMR...), organic synthesis and molecular biology.

Requirements: MSc in Chemistry, Biotechnology, Pharmacy or related fields (or its foreseen completion date before September 2026). Good written and oral communication skills in English, motivation, and ability to collaborate in a multidisciplinary team will be valued.

Supervisor: Applicants should send a motivation letter and a detailed Curriculum Vitae to Dr. Virginie Lhiaubet (lvirgini@itq.upv.es) at the earliest.

Recent references:

¹ Paloma Lizondo-Aranda, Lara Martínez-Fernández, Miguel A. Miranda, Roberto Imprata, Thomas Gustavsson, Virginie Lhiaubet-Vallet *J. Phys. Chem. Lett.* **2022**, 13, 251-257

² Paloma Lizondo-Aranda, Thomas Gustavsson, Lara Martínez-Fernández, Roberto Imprata, Virginie Lhiaubet-Vallet. *Chem.Eur. J.* **2024**, 30, e202401835

³ Paloma Lizondo-Aranda, Gemma M. Rodríguez-Muniz, Miguel A. Miranda, Belinda Heyne, Virginie Lhiaubet-Vallet. *Photochem. Photobiol. Sci.* **2025**, 24, 1–12

⁴ Laura Francés-Soriano, Gemma M. Rodríguez-Muñiz, Paloma Lizondo-Aranda, Delia Bellezza, María González-Béjar, Virginie Lhiaubet-Vallet. *Nanoscale* **2025**, 17, 19103-19109