ADRIAN FERNANDEZ LODEIRO

PhD Chemist | Advanced Materials R&D

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ABOUT ME

PhD Chemist with international R&D experience in nanoscience and advanced materials. Expertise in nanomaterial synthesis and functionalisation across a range of applications, including sensing, catalysis, and antibacterial technologies. Strong background in project leadership, grant acquisition, scientific communication, and the development of innovative materials-based solutions.

EDUCATION

PhD in Sustainable Chemistry (2014-2019)
Joint Programme NOVA University Lisbon (FCT and ITQBAX), University of Porto (FC, FF and ICBAS) and University of Aveiro
Thesis title: Gold, Silver and Platinum Nanoparticles: From New Synthetic Routes to Sensing, Catalysis and Bio-Applications

Bachelor in Chemistry (5-year programme) (2013)
University of Santiago de Compostela, Spain

WORK EXPERIENCE

Marie Skłodowska-Curie Actions (MSCA-Cofund) Postdoctoral Researcher (Oct 2023-Dec 2025)

Department of Electrical and Computer Engineering, University of Cyprus (Cyprus)

- Developed nanomaterial-based SERS and microfluidics platforms for point-of-care diagnostics
- Contributed to advanced biosensing strategies for next-generation detection technologies
- Worked in an interdisciplinary research environment

Postdoctoral Researcher at NOVA University of Lisbon (Jun 2021-Sep 2023)

Department of Chemistry, Nova University of Lisbon (Portugal)

- Developed adjustable silver@silica nanocarriers for drug-resistant and non-resistant pathogenic bacteria
- Developed and optimised nanomaterial stabilisation strategies in solid matrices, enhancing industrial viability
- Contributed to the development of next-generation anti-bacterial materials

Postdoctoral Researcher at Proteomass Scientific Society (Jan 2020-May 2021)

Department of Chemistry, Nova University of Lisbon (Portugal)

- Developed synthetic routes for metallic nanomaterials targeted at catalysis and controlled drug delivery
- Performed full-cycle nanomaterial synthesis, optimisation, and physicochemical characterisation

RESEARCH HIGHLIGHTS

- Principal Investigator of a national research project (€50K)
- 30+ peer-reviewed publications
- 20+ conference contributions (oral presentations and posters)
- MSCA-funded and international collaborative projects
- Research stays at University of Bologna and UAB Barcelona
- Co-organised 50+ scientific conferences within the Bioscope Group
- Shortlisted for European Food Safety Agency (EFSA) support roles (2023–2027)

SKILLS

- Nanomaterial synthesis and surface functionalisation
- Advanced characterisation techniques (TEM, SEM, DLS, XRD, XPS, FTIR, TGA, Zeta potential)
- UV-Vis, Fluorescence, Raman and SERS spectroscopy
- Biosensing and point-of-care technologies
- Scientific writing, communication and technical reporting
- Project leadership and team management
- Process development and optimization
- Interdisciplinary collaboration

LANGUAGES

- English – Fluent
- Spanish – Fluent
- Portuguese– Fluent
- Galician - Fluent
- Italian - Proficient