

MÁSTER EN BIOMATERIALES. CURSO 2023-24
BIOMATERIALES PARA LA LIBERACIÓN CONTROLADA DE FÁRMACOS

CONFERENCIA DR. JESÚS MARTÍNEZ DE LA FUENTE

Instituto de Nanociencia y Nanomateriales de Aragón

“Diseño de Nanopartículas con Aplicaciones Biotecnológicas”

Lunes, 19 de febrero de 2024 - Hora: 15:30h

SALÓN DE ACTOS COFARES (Edificio Aulario). Facultad de Farmacia, UCM.



Dr. J.M. de la Fuente (Barakaldo, 1975) started his PhD work in 1999 working in the evaluation of carbohydrate-carbohydrate interactions using gold nanoparticles in the Institute of Chemical Research from CSIC (Spanish National Research Council). During his PhD, he prepared the first gold nanoparticles functionalized using biologically relevant oligosaccharides, providing the first thermodynamic data, adhesion forces and kinetic data of the carbohydrate-carbohydrate interactions for the antigen Lewis X and also intervened in biological processes.

Once he obtained his PhD, he was funded by the Spanish Science Ministry to work in the Centre for Cell Engineering University of Glasgow (UK) to develop a research project involving the nanoparticles development and its biological application during two years.

In July 2005, he went back to the Institute of Chemical Research (IIQ)-CSIC (Seville, Spain). His research was oriented to the vectorization of paramagnetic nanoparticles with biologically relevant carbohydrates to label and visualize brain tumors.

In June 2007, he got a permanent position in the Institute of Nanoscience of Aragon (INA) belonging to the University of Zaragoza (Spain) as Senior Researcher supported by ARAID. He is actually leading the research group specialized in the Biofunctionalization of Nanoparticles and Surfaces. His research interest is based on the development of general and simple strategies for the functionalization of nanoparticles and surfaces for biomedical and biotechnological applications. He has actually more than 250 published articles with more than 14000 citations and 6 international patents (h factor: 68).

Since then, Dr de la Fuente has created a large research group with outstanding scientific results and excellence research projects. As principle investigator, he has received a European Research Council-Starting Grant for “Multifunctional Magnetic Nanoparticles: Towards Smart Drugs Design-NANOPUZZLE” (2010-2015), a European Research Council-Proof of Concept-HOTFLOW (2017-2018) and ERANET project “Multifunctional Gold Nanoparticles for Gene-Therapy-NANOTRUCK” (2009-2012), he is PI of a FP7-NMP “Nanotherapeutics for Antibiotic Resistant Emerging Bacterial Pathogens-NAREB” (2014-2018) and he has supervised 1 IOF and 2 IEF FP7 Marie Curie Fellows and 4 IF HORIZON2020 Marie Skłodowska-Curie Fellows.

Since June 2014, he is back to CSIC and he is actually a permanent researcher of the Institute of Material Science of Aragon (CSIC-University of Zaragoza).