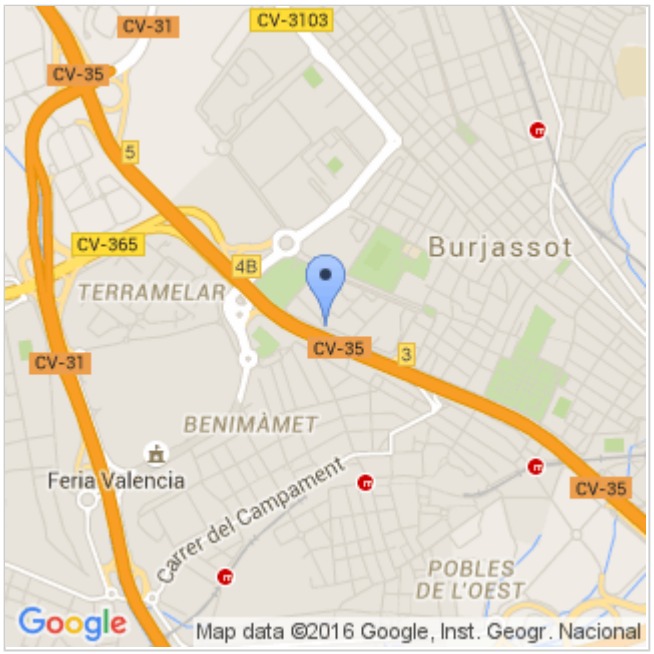
Expression of Interest



Contact Person/Scientist in Charge

- **Name and surname:** Pilar Campíns-Falcó / Carmen Molins-Legua
- **Email:** carmen.molins@uv.es

Universitat de València – Estudi General

Department / Institute / Centre

- **Name:** Analytical Chemistry/Faculty of Chemistry/University of Valencia
- **Address:** Doctor Moliner 50, 46100 Burjassot
- **Province:** Valencia

Research Area

- Chemistry (CHE)

Brief description of the institution:

The University of Valencia (UV) stands out as one of the main public research organisations in Spain, with more than three thousand researchers integrated in 90 departments, 19 institutes and other research units belonging to social, biomedical, human, experimental and formal sciences. Along with human resources, the UV state-of-art premises and facilities, guarantee the quality of a vast scientific and technological offer available to the service of society.

The UV is a leading academic organisation at national level. Shanghai 2014 ranks UV among the top 200-300 universities in the world, and 4th best university in Spain. As per URAP 2014, the University of Valencia ranks third among all Spanish universities, first in Valencia region and 193th in the world.

University of Valencia is participating in several European projects under the subsequent RTD European Framework Programmes (I to VIII) and other European programmes: Erasmus, Leonardo, Life+, Cost, Third Health Programme, EEA Grants, Daphne III, Creative Europe… acting as several roles: coordinator, contractor, associated contractor, member, host institution... having experience in the development and management of more than 300 European projects as a whole.

UV participated in 78 community actions financed under the VII FP (CSA, Collaborative Projects, MSCA, ERC grants, etc.) with the role of coordinator in 29 of them. Currently, we are participating in 20 projects financed under Horizon 2020, with the role of coordinator in 8 of them, and 16 projects under several European Programmes other than H2020

Brief description of the Centre/Research Group (including URL if applicable):

Universitat de València UV (1499) is a modern European university with 45,800 degree and 8,600 postgraduate students. Over 3,300 teachers and researchers, who make up 90 departments 17 institutes and other research units. The magnitude of its facilities and the available up-to-date instrumental equipment guarantee the quality of a vast scientific and technologic offer to the service of society. It is recognized as one of the most outstanding Spanish universities in both national and international rankings. It produces 63 % of the indexed references of all Valencian universities and ranks third among Spanish universities in indexed scientific production. Its increasing research budget, around € 60 million raised annually, is an indicator of its scientific and technological capabilities. **MINTOTA** (http://www.uv.es/mintota/index%20angles.html; Leader Prof. P. Campins-Falco; WOK-Researcher ID: B-8943-2008, Scopus Author ID: 7005602260, orcid.org/0000-0002-0980-8298) develops its research in the department of analytical chemistry (Chemistry developed in the UV appears in 100-150 position in the Shanghai ranking). ***A research line is focused to develop new knowledge in on-line capillary liquid chromatography and nanochromatography and their application in health, environmental or agro-alimentary sectors***. MINTOTA has established collaborations with other research groups of the UV, and with other Spanish and European universities, and develops activities dealing with knowledge from competitive projects and technology transfer

Project description:

The evolution of the research group lead us to the current project for which is derived the starting hypothesis: the coupling of IT-SPME to CapLC and/or NanoLC lead to powerful on-line techniques for the analysis and characterization of emerging contaminants and AgNPs/AuNPs, and the development of new phases which contain nanoparticles and synthetized taking into consideration the analytical requirements, will be a progress in this direction by improving the mechanical stability of the phases, providing better extraction rates and selectivity for the resolution of specific problems. The aim of this project is the study and development of new phases and interactions for miniaturized chromatographic systems coupled on line to IT-SPME. It intends to show its potential for the design of innovative analytical tools aimed at the development of new methodologies capable of generating chemical information of improved quality compared with existing ones, especially for the characterization of NPs and the study of their interactions with the environment, and also for the identification of secondary pollutants and their potential interactions in environmental mixtures. The project is aimed at reinforcing the efforts in Analytical Chemistry in the aforementioned area, and to contribute in the improvement of the sensitivity, precision, accuracy and simplicity, and the development of green methods. It is intended to generate knowledge in: new miniaturized

techniques in on-line liquid chromatography; new (nano)materials with properties established depending on the analytical problem; characterization, quantification and interactions of AgNPs/AuNPs in environmental samples, secondary pollution of last generation and toxicity of mixtures of pollutants

Applications

We look for outstanding applicants since the fellowships are granted in competitive process. Applications must be received by Aby July 31st, 2016.Documents to be submited:

- Curriculum vitae
- Summary of past research