



10 international PhD fellowships in the Marie Skłodowska-Curie European Doctoral Network *BiocatCodeExpander* for a training on innovative biotechnological applications of non-canonical amino acids for biocatalysis, synthetic biology, organic chemistry and computational biology

## PhD fellow # 5

WP2: NOVEL STRATEGIES FOR COUPLING & IMMOBILIZATION

### SITE-DIRECTED IMMOBILIZATION OF ENZYMES ON SOLID CARRIERS THROUGH NON-CANONICAL AMINO ACIDS

#### Organization

The Center for Cooperative Research in Biomaterials, Spain

**The Center for Cooperative Research in Biomaterials** (CIC biomaGUNE) is a non-profit association with the basic aim of creating, producing, promoting and applying scientific and technological knowledge in the biomaterials field. The Centre is composed of 12 international research teams conducting state-of-the-art research at the interface between chemistry, physics and biology, with particular emphasis on the properties and applications of molecular-level biological nanostructures. CIC biomaGUNE' cutting-edge infrastructures include the Molecular Imaging Facility, one of the biggest biomedical imaging technology platforms in Europe in the field of molecular and functional pre-clinical imaging. CIC has a large expertise in collaborative research and training programmes at international level, through its participation in numerous international projects in the last 5 years > 20. Also during the last 5 years > 40 PhD students have defended their thesis and > 60 postdoctoral researchers have received scientific training at CIC. The center has a well-established academic relationship with the University of Basque Country (UPV/EHU), which awards all the PhD titles of the students who develop their thesis project under the supervision of CIC biomaGUNE researchers.

#### Doctoral Supervisor

Dr. Fernando López Gallego

#### Enrolment in Doctoral degree

Universidad del País Vasco (UPV)



## Secondments

At TU Graz (Graz, Austria) with Prof. Robert Kourist  
& EnginZyme AB (Stockholm, Sweden) with Dr. Karim Engelmark

## Objectives

- Development of medium-high throughput methods for cell-free expression and immobilization of non-canonical amino acids (NCAA)-containing artificial enzymes
- Increase artificial enzyme thermostability
- Molecular characterization and operational evaluation of heterogeneous biocatalysts based on NCAA-containing artificial enzymes
- Technology transfer

## Fields related to the project

- (1) Synthetic biology
- (2) Biochemistry
- (3) Biocatalysis

## Qualifications

- Researchers can be of any nationality
- The researcher must not have carried out his/her main activity (work, studies, etc.) in the country of his/her host organization for more than 12 months in the 3 years immediately prior to recruitment.
- The researcher should not have obtained a PhD degree and should not have more than 4 year full-time or equivalent research experience since obtaining the degree which makes them eligible for starting the PhD degree
- Applicants must demonstrate excellent proficiency in English language to be eligible
- Researchers must demonstrate an excellent academic record. Hold a master's degree (or equivalent) relevant to the project (chemistry, biochemistry, biotechnology, molecular sciences or related disciplines)



## We offer

- Full-time contract (36 months) with the recruiting institution, enrolled in a PhD programme
- Salary and benefits are in accordance with the MSCA regulations for PhD students
- *BiocatCodeExpander* promote gender equality, open science practices and cutting-edge training.
- PhD students will be trained in an international, inter-disciplinary academic and industrial environment through state-of-the-art research
- Two secondments per PhD position and exciting summer schools

## Application

The application, in English, must be submitted electronically by email to the *BiocatCodeExpander* email address [biocatcodeexpander.beta@vu.nl](mailto:biocatcodeexpander.beta@vu.nl) before the 22/01/2023 (only applications that are complete, in English and submitted before the deadline will be considered eligible)

The preferred starting date is between April-September 2023

Please, submit the following documents in one PDF document:

- A cover letter, stating your motivation to join the doctoral network, and mentioning the choice of project you would prefer to apply for (max. 3 projects)
- CV: a one- to two page synopsis of yourself, your scientific interests, experience, current research work and list of publications
- Two letters of recommendation from former advisors/professors

## More information

Web site for additional job details: <http://www.biocatcodeexpander.com/>