



ESR 6 | Compartmentalization of transaminases and lipases to synthesize amides derived from HMF

ROLES AND RESPONSIBILITIES

The half part of your PhD research (18 months) will be carried out at the University of Oviedo (Spain) under the supervision of Assoc. Prof. Dr. Vicente Gotor-Fernández and Assoc. Prof. Dr. Iván Lavandera in the Bioorganic research group at the Organic and Inorganic Chemistry Department. The other half of the PhD work (18 months) will be at the company EnginZyme (Sweden) under the supervision of Dr. Vincent Murphy and Dr. Alexey Volkov. The H2020 Marie Skłodowska-Curie Actions (MSCA) – Innovative Training Network (ITN) project starts in January 2020 (M1). PhD project is funded for three years and the date of recruitment, start of the PhD project, is planned for July 2020 (M7) latest on December 2020 (M12). Your PhD degree will be awarded based on successful completion of the research work. You will also be required to participate in the training events and workshops organized by the ITN-European Industrial Doctorates (EID) program. As a Marie Skłodowska-Curie Actions (MSCA) fellow, you are also expected to contribute your time in the dissemination of your PhD project's result through public engagement and other scientific platforms.

The PhD research will focus on:

- (i) Selection of enzyme candidates and optimization of enzymatic reaction conditions,
- (ii) Training of the ESR in the organic synthesis of substrates and products, product characterization and optimization of analytical measurements,
- (iii) Use of organic solvents and non-conventional media applied to biocatalytic synthesis,
- (iv) Immobilization of enzymes with diverse methods and materials,
- (v) Studies of enzyme stability and recyclability in organic solvents,
- (vi) Application of flow systems with compartmentalized sequential reactions.

Recruiting Institution: EnginZyme (Sweden)

Address applications to: Dr. Alexey Volkov (alexey@enginzyme.com)

REQUIREMENTS

- An outstanding M.Sc. degree in Chemistry, Biotechnology or Biochemistry,
- Eligible as a graduate student at the University of Oviedo, Spain,
- At the time of recruitment, the applicant must not have resided (or carried out his/her main activity e.g. work, studies, etc.) in Sweden, for more than 12 months in the last three years immediately prior to the reference recruitment date,
- Research experience in organic synthesis, chemo-biocatalysis, enzyme immobilization and reaction engineering,
- Experience in analytical methods (HPLC, GC, MS, etc.),
- Ability to work in an international team,
- Inter- and multidisciplinary thinking,
- High motivation,
- An integrative and cooperative personality with excellent communication and social skills,
- Fluency in English – written and oral.

APPLICATION PROCEDURE

To apply for the position, kindly provide:

- (i) A letter of motivation including a one-page statement of your research interests, relevant skills and experience;
- (ii) A CV including publication list; and
- (iii) Names and contact details of three referees willing to write confidential letters of recommendation.

Applications of women and disabled persons are particularly welcome.

All materials should be attached as a single PDF file (max. size 5MB). The PDF file name should include ESR6, your last name and first name (using "ESR6_surname_firstname.pdf").

DEADLINE

The closing date for all applications is 01st of March 2020 or as soon as suitable candidates have been identified.



Innovative Training Network – European Industrial Doctorates

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 860414.