



ESR 7 | Development of new engineered laccases for the synthesis of ferulic acid and HMF derivatives

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. Iván Lavandera and Assoc. Prof. Dr. Vicente Gotor-Fernández 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 BioPox (Italy) under the supervision of Prof. Dr. Giovanni Sanna, Dr. Alessandra Piscitelli and Dr. Vincenzo Lettera. 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) Identification of target to be addressed in laccase mutant(s) designing,
- (ii) Enzyme engineering applied to the development of tailored laccases,
- (iii) Recombinant expression of tailored candidates: kinetic and stability studies,
- (iv) Optimization of the reaction conditions applied to the synthesis of bio-based derivatives,
- (v) Development of compartmentalized cascade reactions,
- (vi) Selected up-scaling reactions from readily accessible bio-based derivatives.

Recruiting Institution: University of Oviedo (UNIOVI, Spain)

Address applications to: Assoc. Prof. Dr. Iván Lavandera (lavanderaivan@uniovi.es)

REQUIREMENTS

- An outstanding M.Sc. degree in Chemistry, Biotechnology, Biochemistry or Molecular Biology,
- 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 Spain, for more than 12 months in the last three years immediately prior to the reference recruitment date,
- Research experience in organic synthesis, chemo-biocatalysis, microbiology and enzyme 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 ESR7, your last name and first name (using “**ESR7_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.