



10 international PhD fellowships in the 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 # 2

WPI: TOOLS FOR NON-CANONICAL AMINO ACIDS INCORPORATION

NEW TOOLS FOR THE SITE-SELECTIVE RIBOSOMAL TRANSLATION OF NON-CANONICAL AMINO ACIDS CONTAINING SI-GROUPS AND TERTIARY AMINES

Organization

Austrian Centre of Industrial Biotechnology, Austria

Austrian Centre of Industrial Biotechnology (acib) is an international competence centre for industrial biotechnology specializing in 'bridging the gap' between academic and industrial research, with the areas 'Biotransformations', 'Microbial Parts and Systems' and 'Biopharmaceutical Industries'. With approximately 160 of our own employees and expertise from our scientific partners University of Natural Resources and Life Sciences Vienna, Graz University of Technology, University of Graz, and University of Innsbruck, acib is active in the fields of biocatalysis, enzyme technology, protein engineering, (bio)polymers, metabolic modelling, bioprocess engineering, cell engineering and synthetic biology. acib is located in Austria and has labs in Vienna, Graz, Tulln, and Innsbruck. In acib, interdisciplinary teams of molecular biologists, biochemists and biotechnologists are working together with various company and scientific partners on new methods for a better application of biotechnology for industrial purposes.

Doctoral Supervisor

Dr. Birgit Wiltschi



Enrolment in Doctoral degree

University of Natural Resources and Life Sciences (BOKU)

Secondments

At TU Graz (Graz, Austria) with Dr. Gustav Oberdorfer
& LenioBio GmbH (Dusseldorf, Germany) with Dr. Ricarda Finnern

Objectives

- Molecular docking and molecular design to identify mutation hotspots
- Generation of aminoacyl-tRNA synthetases gene libraries
- Validation of the new orthogonal pairs for the site specific incorporation of desired non-canonical amino acids

Fields related to the project

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

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 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>