



PhD Position in Chemistry and Microbiology

Job Description:

The Marie Skłodowska Curie Doctoral Network “DyeAnotherWay” is inviting applications for a 36 month full time fixed term position as a Doctoral Candidate (DC). This research project is a collaboration between 17 organisations, including 9 academic and 8 non-academic, from 11 countries (AT, BE, BR, DE, ES, FI, FR, PT, SE, UK, USA) across Europe and beyond. The research aims to investigate all aspects of biogenic dyes, from the identification of dye-producing bacteria and the characterization of their pigments, through the optimization of their production and application, to the comprehensive ecological and economic evaluation of the resulting solutions.

The successful applicant will be employed by Technische Universität Wien in Austria, with planned intersectoral and interdisciplinary stays with collaboration partners totalling a maximum of 11 months.

The research and PhD thesis will be on “Identification of chemical structures & metabolic pathways and chemical modifications of novel natural dyes”.

The DC will:

- extract unknown dyes from selected bacterial strains
- structurally elucidate the novel dyes by state-of-the-art NMR spectroscopy and mass spectrometry
- identify their biochemical precursors
- mine the genomes of dye producing bacteria for Biosynthetic Gene Clusters (BGC)
- predict the building blocks of the natural dyes and to verify them by feeding experiments
- spectrally characterize the novel dyes
- chemically modify the substitution patterns of selected novel dye structures and to evaluate possibly resulting changes in the colour shades

Beyond the specific expertise gained during the DC's completion of their research work, this position offers an opportunity to gain international research experience, as well as an array of soft skills relevant to project management, research management and career development.

Candidates must:

- hold a University Master's Degree in any discipline that makes them eligible for a PhD in chemistry or microbiology
- not have resided or carried out their main activity (work, study, etc) in Austria for more than 12 months in the three years immediately prior to 01.01.2026, unless as part of a procedure for obtaining refugee status under the Geneva Convention, but may be of any nationality
- be available to start on 01.01.2026
- have excellent English language skills
- be able to travel internationally on a regular basis, for example to attend regular project meetings or to take part in conferences

- be able to work in an international environment, be highly motivated and reliable, be able to work to strict deadlines

Research Fields:

Chemistry, biochemistry, microbiology, enzymology, and analytical chemistry

Career Stage:

According to EU HORIZON EUROPE guidelines, Doctoral Candidates must have fewer than four years research experience at the date of employment (1st January 2026) and must not have been awarded a doctoral degree.

Benefits:

Annual Salary: within the range of EU Marie Curie European Training Network programs, Monthly Mobility Supplement and Monthly Family Allowance (if eligible): according to the rules of EU Marie Curie European Training Network programs

How to Apply:

Please send a letter of motivation and your full CV, along with any supporting documents, as a single PDF to recruitment.dyeanotherway@tuwien.ac.at before 15th October 2025. Please include “DC2 Application” in the email reference line. Please include the clause “I consent to the processing of my personal data for the purposes of this recruitment process in accordance with the EU GDPR”. CVs should follow the Europass template available for free download at: https://www.eea.europa.eu/about-us/jobs/application-documents/europass_cv_template.doc.



This project gratefully received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101225857.