

PhD position

Multiparametric engineering of alkene dioxygenases

within Horizon Europe Marie Skłodowska-Curie Action doctoral network **ELEGANCE**

(DC position 5: recruiting institution: ACIB GmbH (TU Wien/Austria))

Organization

TU Wien is one of the major universities in Vienna. The university has received extensive international and domestic recognition in teaching as well as in research, and it is a highly esteemed partner of innovation oriented enterprises. Technische Universität Wien (TU Wien) was founded in 1815 and is Austria's leading research and higher education establishment on natural sciences and engineering with nearly 30,000 students and around 4,800 staff members. It covers eight faculties: Mathematics and Geoinformation, Physics, Technical Chemistry, Informatics, Civil Engineering, Architecture and Planning, Mechanical and Industrial Engineering, Electrical Engineering and Information Technology. TU Wien's statement is Technology for People. Through research the aim is to develop scientific excellence and by doing so TU Wien enhances comprehensive competence. As one of Europe's leading research universities, its focus is not only on the balance of basic research with applied research, but the high-quality results from excellent research and close cooperation with economy. In Horizon 2020 TU Wien has participated in 241 projects. Thereof 60 MSCA projects, including 32 ITN and 2 COFUND Doctoral Programmes. In 2020, TU Wien was awarded the "HR Excellence in Research Award" by the European Commission for continuously implementing the principles of the European Charter & Code.

The doctoral candidate (DC) will work as ACIB affiliate at TU Wien at the Institute of Applied Synthetic Chemistry in Vienna.

Roles and responsibilities

The PhD will be carried out in approximately 3 years at ACIB (located in Vienna at TU Wien) under the supervision of Prof. Florian Rudroff (TU Wien). Within this time, it is expected that two to three research stays (2-3 months) will be conducted, one in an academic group in Croatia, and two industrial stays in Graz (Innophore & myBIOS). The Horizon Europe Marie Skłodowska-Curie Action (MSCA) doctoral network (DN) project starts in January 2026. The date of recruitment and start of the PhD project is planned for June 2026 and latest by December 2026. Your PhD degree will be awarded by TU Wien based on successful completion of the research work at ACIB (located in Vienna at TU Wien). You will also be required to participate in the training events organized by the DN and you are expected to contribute with the dissemination of your PhD results via social media and public engagement.

The PhD project will focus on:

- In depth characterization of alkene cleaving enzymes (stability & activity)
- In silico identification of novel alkene cleaving enzymes
- Expression in *E. coli* and *P. pastoris*
- Biochemical characterization of novel alkene cleaving enzymes
- Substrate synthesis & biocatalytic investigations
- Protein engineering to increase operational stability and broaden the substrate scope

Main supervisor: Florian Rudroff, Institute of Applied Synthetic Chemistry, TU Wien, Vienna, Austria

Co-supervisor 1: Margit Winkler, Zürcher Hochschule für Angewandte Wissenschaften, Wädenswil, Switzerland

Co-supervisor 2: Zvezdana Findrik Blažević, University of Zagreb, Zagreb, Croatia

Co-supervisor 3: Claudia Rinnofner, MyBIOS GmbH, Graz, Austria

Co-supervisor 4: Bettina Nestl, Innophore GmbH, Graz, Austria

Qualifications:

- MSc in chemistry, biotechnology, biochemistry, or related engineering disciplines
- Experience in experimental studies of proteins/enzymes
- Experience in biocatalysis and synthetic chemistry
- Excellent English proficiency in written and oral form
- Excellent communication skills for working within interdisciplinary research team
- Strong analytical skills and ability to work independently

Preferred qualifications but not mandatory:

- Experience with enzyme kinetic characterization and protein engineering
- Experience with assay development
- Experience with protein engineering
- Interest in chemo-enzymatic cascade reactions
- Interest in entrepreneurship to make a positive impact on planetary and human health

Eligibility criteria

You must have a two-year master's degree (120 ECTS points) or a similar degree with an academic level equivalent to a two-year master's degree. According to the mobility rule for DN, researchers must not have resided or carried out their main activity (work, studies, etc.) in Austria for more than twelve months in the three years immediately before the start of employment.

Approval and Enrolment

The scholarship for the PhD degree is subject to academic approval, and the candidate will be enrolled in the Doctoral School at TU Wien. For information about our enrolment requirements and the general planning of the PhD study programme, please see <https://www.tuwien.at/en/research/tuw-doctoral-center>.

We offer

TU Wien (ACIB) is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility. A package of voluntary social benefits (e.g. reduced fees for the tickets for public transport) is also part of our modern corporate culture.

Conditions of employment

- The preferred starting date is **1st June 2026** or according to mutual agreement.
- The position is full time (40h/week).
- The period of employment is 3 years.
- The annual gross salary is **around EUR 40.000 + a monthly mobility allowance**.
- This corresponds to a monthly net amount of EUR 2.084,04 (paid 14 times a year). In addition, a Mobility Allowances of EUR 710,00 net per month is due.

Further information

Further information may be obtained from Florian Rudroff: florian.rudroff@tuwien.ac.at

Florian Rudroff's ORCID profile & webpage: <https://orcid.org/0000-0002-6680-8200>

Website about MSCA doctoral network ELEGANCE: <https://elegance.dtu.dk/>

More information about ACIB GmbH & TU Wien: www.acib.at; www.tuwien.ac.at

BSC group: <https://info.ias.tuwien.ac.at/bsc/>

If you are applying from abroad, you may find useful information on working in Austria and at TU Wien at <https://www.tuwien.at/en/studies/international/incoming-exchange-students>.

Application procedure

Your complete online application must be submitted no later than **January 31st 2026 (23:59 CET)**.

Applications must be submitted as **one PDF file** containing all materials to be given consideration.

To apply, please open the link "Apply now", fill out the online application form, and attach **all your materials in English in one PDF file**. The file must include:

- A letter motivating the application (cover letter)
- Curriculum vitae
- Grade transcripts and BSc/MSc diploma (in English) including official description of grading scale

You may apply prior to obtaining your master's degree but cannot begin before having received it. Applications received after the deadline will not be considered.

It is particularly important to us that our job offers appeal to all people, regardless of gender, sexual orientation, origin, age, nationality or religion.

To apply, click [here!](#)