

DC 5 | Structure-function relationships to facilitate novel N-N bond forming reactions

ORGANISATION

The **University of Graz** (UNI GRAZ), founded in 1585, constitutes one of the largest Austrian research institutions. Numerous outstanding scientists, among them six Nobel prize laureates, taught and carried out their research at UNI GRAZ. Today, about 32,000 students and 4,200 employees are active at UNI GRAZ; hence, UNI GRAZ contributes significantly to the economic and social life of Graz. The University is highly recognised for its intense cooperation with national and international partners and its close contacts to industry. UNI GRAZ offers tailor-made training services to our researchers, as well as different internship packages (Graduate Research Scholarship, Pre-doctorate Research Scholarship, etc.). In particular, the strong involvement of UNI GRAZ in MSCA fellowships (both IFs and ITNs) in the previous EU-framework programmes deserves to be highlighted.

ROLES AND RESPONSIBILITIES

The main part of your PhD research (3 years in total) will be carried out at the **University of Graz** (UNI GRAZ, Austria) under the supervision of **Prof. Dr. Karl Gruber** at the Institute of Molecular Biosciences. Within these three years, one academic research stay (3 months) will take place at the **University of Groningen** (RUG, The Netherlands) under the supervision of **Prof. Dr. Sandy Schmidt**. Additionally, an industrial secondment at the company **Innophore** (Graz, Austria) is foreseen. The date of recruitment and start of the PhD project is planned for May 2023 and latest in December 2023. Your **PhD degree** will be awarded based on the successful completion of the research work from the **University of Graz**. You will also be required to participate in the **training events and workshops** organised by the DN program. As an MSCA fellow, you are also expected to **contribute your time to disseminating your PhD project's results** through public engagement and other scientific platforms.

The PhD research will focus on:

- (i) Interdisciplinary project on structural biology, bioinformatics, enzymology
- (ii) Determining crystal structure(s) of N-N bond-forming enzymes
- (iii) Elucidating key structure-function relationships in these enzymes
- (iv) Using the obtained structural and mechanistic insight to engineer enzyme variants
- (v) Evaluating the engineered enzyme variants in the lab (academic secondment)
- (vi) Utilizing machine learning approaches for enzyme identification and engineering (industrial secondment).

Primary supervisor: Dr. Karl Gruber (karl.gruber@uni-graz.at, <https://molekularbiologie.uni-graz.at/en/strukturbiologie/>)

Recruiting institution: University of Graz (Austria)

QUALIFICATIONS

- An outstanding M.Sc. degree in Molecular Biology, Biotechnology, Biochemistry, or a related field
- Eligible as a graduate student at the University of Graz (Austria),
- Research experience in structural biology, structural bioinformatics, molecular modelling, enzymology
- 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.

CONDITIONS OF EMPLOYMENT

We offer you

- to be part of an enthusiastic team dedicated to enhancing our knowledge of structural enzymology
- a salary of € 3.058,60 gross per month (calculated for 2022, there are annual increases following an index) corresponding to € 2.068,79 net, paid 14 times per year; health insurance is paid by the University as well as social security.
- A PhD training program is part of the agreement, and the successful candidate will be enrolled in the Doctoral School of Molecular Biology and Biochemistry.

The 1.0 FTE appointment is temporary for a specified period of three years. The preferred starting date is between May 1st and July 1st 2023.

APPLICATION PROCEDURE

To apply for the position, kindly provide:

- (i) A letter of motivation including a statement of your research interests, relevant skills and experience and an explanation for the choice of position(s);
- (ii) A CV including publication list (if applicable);
- (iii) Names and contact details of two to three referees willing to write confidential letters of recommendation;
- (iv) Copies of relevant diplomas, including an explanation of international grades.

Please upload applications only according to the instructions at <http://www.biodeccodinng.eu/>.

Address applications to: Prof. Karl Gruber.

Diversity among students and staff members enriches academic debate and contributes to the quality of our teaching and research. We, therefore, invite applicants from underrepresented groups in particular to apply. Our selection procedure follows the guidelines of the Recruitment code (NVP), <https://www.nvp-hrnetwerk.nl/sollicitatiecode/> and the European Commission's European Code of Conduct for recruitment of researchers, <https://euraxess.ec.europa.eu/jobs/charter/code>.

APPLICATION DEADLINE

You may apply until the 10th of January 11:59 pm / before the 11th of January 2023 local time (CET) for this position by means of the online application form (click on "Apply" below on the advertisement on the BiodeCCodiNNg website).

MARIE SKŁODOWSKA-CURIE ACTIONS
Doctoral Networks (DN)



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