

DC 10 | Flavin-dependent halogenases as key ingredients of cellular factories

ORGANISATION

The **University of Groningen** is a research university, currently in or around the top 100 on several influential ranking lists. The Faculty of Science and Engineering (FSE) is the largest faculty within the University, offering first-rate education and research in a wide range of science and engineering disciplines. The mission of the Stratingh Institute for Chemistry is to perform excellent research and teaching in molecular and supramolecular chemistry. Core activities in the chemical sciences such as bioorganic chemistry, organic chemistry, molecular inorganic chemistry and molecular materials chemistry are embedded in the institute. The research programme is focused on synthesis, catalysis, functional materials, bio-organic chemistry/chemical biology and systems chemistry/complex molecular systems. The Mayer group tackles scientific and societal challenges with innovative molecular evolution approaches. We aspire to employ selections for the creation of made-to-order biomolecules and to obtain a molecular understanding of the underlying evolutionary processes. The group pursues two ambitious research goals: (1) to utilize continuous evolution to engineer efficient biocatalysts and map their structure-function relationships; and (2) to interface synthetic chemistry with phage display protocols to select natural-product-like macrocyclic peptides that combine the favorable traits of small-molecule and peptide-based drugs.

ROLES AND RESPONSIBILITIES

The main part of your PhD research (4 years in total) will be carried out at the **University of Groningen** (RUG, the Netherlands) under the supervision of **Prof. Clemens Mayer** in the Molecular Evolution group at the Stratingh Institute for Chemistry. Within these four years, an academic research stay (of 12 months) will take place at the **Ruhr University Bochum** (RUB, Germany) under the supervision of **Prof. Dirk Tischler**. Additionally, an industrial secondment at the company **Enzyan** (Austria) is foreseen. The Horizon Europe Marie Skłodowska-Curie Actions (MSCA) – Doctoral Network (DN) project starts in January 2026. The date of recruitment and start of the PhD project is planned for July 2026 and latest in December 2026. Your **PhD degree** (so-called double degree) will be awarded based on successful completion of the research work from **two universities (RUG, the Netherlands and RUB, Germany)**. You will also be required to participate in the training events and workshops organized by the DN- Joint Doctorates (JD) program. As a 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:

- Design and engineering of chemoenzymatic cascades involving halogenases (incl. academic secondment)
- High-throughput, directed evolution experiments
- Characterization of enzyme function and activity
- Computational tools for cascade optimization (industrial secondment)
- Chemical synthesis of substrates and standards

Primary supervisor: Prof. Clemens Mayer

Secondary supervisor: Prof. Dirk Tischler

Recruiting institution: University of Groningen (Groningen, the Netherlands)

Double degree awarding institution: Ruhr University Bochum (Bochum, Germany)

QUALIFICATIONS

We are looking for a creative, motivated, and determined candidate, who meets the following requirements:

- A M.Sc. degree in Chemistry, Biological chemistry, Biochemistry, or a related field,
- Eligible as a graduate student at the University of Groningen (the Netherlands) and the Ruhr University Bochum (Germany),
- Research experience in molecular biology, organic chemistry, analytical methods, experience in (chemo)enzymatic cascade reactions is a plus,
- An interest in working at the interface of chemistry and synthetic biology,
- Ability to work in an international team with fluency in written and oral English,
- An integrative and cooperative personality with excellent communication and social skills.

CONDITIONS OF EMPLOYMENT

We offer you in accordance with the Collective Labour Agreement for Dutch Universities

- a salary of € 3.059,00 gross per month in the first year, up to a maximum of € 3.881,00 gross per month in the fourth and final year
- a holiday allowance of 8% gross annual income
- an 8.3% end-of-year bonus and participation in a pension scheme for employees
- first, a temporary position of one year with the option of renewal for another three years. Prolongation of the contract is contingent on sufficient progress in the first year to indicate that a successful completion of the PhD thesis within the next three years is to be expected.
- A PhD training programme is part of the agreement and the successful candidate will be enrolled in the Graduate School of Science and Engineering.

The 1.0 FTE appointment is temporary for a specified period of four years. The preferred starting date is between July 1st and December 1st 2026. The conditions of employment: <https://www.rug.nl/about-us/work-with-us/>.

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 up to three referees willing to write confidential letters of recommendation,
- (iv) copies of relevant diplomas including explanation of international grades.

Please upload applications only according to instructions at <https://haloverse.eu/recruitment/>

Address applications to: Prof. Clemens Mayer

The University of Groningen strives to be a university in which students and staff are respected and feel at home, regardless of differences in background, experiences, perspectives, and identities. We believe that working on our core values of inclusion and equality are a joint responsibility and we are constructively working on creating a socially safe environment. 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. For more information, see also our diversity policy webpage: <https://www.rug.nl/...rsity-and-inclusion/>. 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>.

Unsolicited marketing is not appreciated.

APPLICATION DEADLINE

You may apply until 31st of December 2025 11:59pm / before 1st of January 2026 European Central time (CET) for this position by means of the online application form (click on "Apply" below on the advertisement on the HaloVerse website).

MARIE SKŁODOWSKA-CURIE ACTIONS
Doctoral Networks (DN)



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