

DC 9 | Engineering designer fluorinases

ORGANISATION

The **University of Stuttgart** represents an outstanding, world-renowned research and first class teaching in one of Europe's most dynamic industrial regions. As a reliable employer, the university supports and promotes the academic careers of its researchers. It is proud of its employees, who currently come from over 100 different countries. The university is a partner for knowledge and technology transfer and focuses on multidisciplinary.

The position we offer will be embedded in the Department of Technical Biochemistry at the Faculty of Chemistry (<https://www.f03.uni-stuttgart.de/en/>). The Faculty of Chemistry at the University of Stuttgart hosts over 250 scientists, including 24 professors, and more than 900 students across chemistry and materials science. Its research is supported by collaborations with Max Planck, Fraunhofer, and other research institutes. The department emphasizes real-world applications, such as energy, catalysis, synthetic biology, and adaptive materials. Prof. Dr. Hajo Kries is head of the Department of Technical Biochemistry (<https://www.ibt.uni-stuttgart.de/en/tbc/>), which works at the interface of biocatalysis and natural product biosynthesis and focuses on transforming enzymes into powerful catalysts for sustainable chemistry. We value collaboration, creativity, and mutual respect – science is our passion, and we support each other.

ROLES AND RESPONSIBILITIES

The main part of your PhD research (4 years in total) will be carried out at the **University of Stuttgart** (Germany) under the supervision of **Prof. Dr. Hajo Kries** in the Department of Technical Biochemistry at the Faculty of Chemistry. Within these four years, an academic research stay (of 12 months) will take place at the **University of Groningen** (Netherlands) under the supervision of **Prof. Dr. Clemens Mayer**. Additionally, an industrial secondment at the company **BASF** (Germany) 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 April 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 (University of Stuttgart and University of Groningen)**. 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:

- (i) Design and engineering of new-to-nature enzymes
- (ii) Cloning genes, expression and purification of proteins
- (iii) Directed evolution experiments
- (iv) Characterization of enzyme function and activity
- (v) Chemical synthesis of ligands, substrates, and standards (academic secondment)
- (vi) Application of computational tools for enzyme design
- (vii) Transfer of fluorinase reaction to industrial setting (industrial secondment)

Primary supervisor: Prof. Dr. Hajo Kries

Secondary supervisor: Prof. Dr. Clemens Mayer

Recruiting institution: University of Stuttgart (Germany)

Double degree awarding institution: University of Groningen (the Netherlands)

QUALIFICATIONS

- An outstanding M.Sc. degree in Chemistry, Chemical Biology, Biochemistry, or a related field
- Eligible as a graduate student at the University of Stuttgart (Germany) and the University of Groningen (the Netherlands)
- Research experience in enzyme purification and assays, organic chemistry, analytical methods (HPLC, GC, MS, NMR etc.)
- Experience in molecular cloning or computational protein design is a plus
- Ability to work in an international and interdisciplinary team
- High motivation
- An integrative and cooperative personality with excellent communication and social skills
- Fluency in English – written and oral

CONDITIONS OF EMPLOYMENT

We offer

- a salary according to the Marie Skłodowska-Curie Actions (MSCA) regulations for Doctoral Networks which consists of a living allowance plus a mobility allowance and, if applicable, a family allowance,
- comprehensive social security coverage according to German standards, including health, unemployment, and pension insurance, and statutory accident insurance for workplace accidents,
- 30 days of paid annual leave,
- a PhD training programme and enrolment in the Graduate Academy of the University of Stuttgart (GRADUS).

The position is a full-time appointment (100%) for a total duration of four years. The preferred starting date is between April 1st and July 1st 2026.

The conditions of employment: <https://www.uni-stuttgart.de/en/university/employer/>.

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 www.haloverse.eu.

Address applications to: Prof. Dr. Hajo Kries

At the University of Stuttgart, we actively promote diversity among our employees. We have set ourselves the goal of recruiting more women scientists and employing more people with an international background, as well as people with disabilities. We are therefore particularly pleased to receive applications from such people. Regardless, we welcome any good application. Women who apply will be given preferential consideration in areas in which they are underrepresented, provided they have the same aptitude, qualifications and professional performance. Severely disabled applicants with equal qualifications will be given priority.

As a certified family-friendly university, we support the compatibility of work and family, and of professional and private life in general, through various flexible modules. We have an employee health management system that has won several awards and offers our employees a wide range of continuing education programs. We are consistently improving our accessibility. Our Welcome Center helps international scientists get started in Stuttgart. We support partners of new professors and managers with a dual-career program.

Unsolicited marketing is not appreciated.

APPLICATION DEADLINE

You may apply until 31st of December 2025 11:59pm / before 1st of January 2026 Central European 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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