

ESR 1 | Synthetic biology to streamline the metabolism of *C. necator* toward the production of rare amino acids and proteins

ORGANISATION

Since its founding in 1614, the **University of Groningen** has enjoyed an international reputation as a dynamic and innovative centre of higher education offering high-quality teaching and research. We encourage the 31,000 students and researchers to develop their own individual talents. Among the best research universities in Europe, we join forces with prestigious partner universities and networks around the world, the University of Groningen is truly an international place of knowledge.

The position we offer will be embedded in the Groningen Research Institute of Pharmacy (GRIP) within the Department of Chemical and Pharmaceutical Biology (CBP, <https://www.rug.nl/research/grip/cpb/>). Researchers at GRIP strive to find new and innovative drugs and therapies and wish to improve the use of existing drugs. Bridging the gap between the fundamental natural sciences (such as chemistry and physics) and the medical/clinical sciences in the field of medicinal products is the one of the core activities of the institute. The CPB Department is represented by an enthusiastic group of researchers from different parts of the world. The cell as producer and target for pharmaceuticals is the main part of the research at CBP.

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 **Assist. Prof. Dr. Sandy Schmidt** in the Department of Chemical and Pharmaceutical Biology at the Groningen Research Institute of Pharmacy. Within these four years an academic research stay (6 months) will take place at the **Rheinisch Westfaelische Technische Hochschule Aachen** (RWTH, Germany) under the supervision of **Prof. Lars M. Blank**. Additionally, an industrial secondment at the company **LegenDairy Foods GmbH** (Berlin, Germany) is foreseen. The H2020 Marie Skłodowska-Curie Actions (MSCA) – Innovative Training Network (ITN) project starts in January 2021. The date of recruitment and start of the PhD project is planned for May 2021 and latest on December 2020. Your **PhD degree** will be awarded based on successful completion of the research work **from two universities** (RUG, the Netherlands and RWTH, Aachen). You will also be required to participate in the **training events and workshops** organized by the ITN-European Joint Doctorates (EJD) program. As a Marie Skłodowska-Curie Actions (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) Interdisciplinary project on synthetic biology, biocatalysis, metabolic engineering,
- (ii) Strain engineering based on CRISPR-Cas,
- (iii) Characterization of engineered strains in small-scale cultures under autotrophic and heterotrophic conditions,
- (iv) Metabolite analysis (academic secondment)
- (v) Development of fed-batch process together with industry partner.

Primary supervisor: Dr. Sandy Schmidt (s.schmidt@rug.nl)

Recruiting institution: University of Groningen (the Netherlands)

Double degree awarding institution: Rheinisch Westfaelische Technische Hochschule Aachen (Germany)

QUALIFICATIONS

- An outstanding M.Sc. degree in Synthetic Biology, Biological chemistry, Biotechnology, Biochemistry, or related field
- Eligible as a graduate student at University of Groningen, the Netherlands,
- Research experience in molecular biology (molecular cloning, DNA/RNA extraction, PCR, gel electrophoresis), analytical methods (HPLC, GC, MS, NMR etc.), experience in CRISPR technology is a plus
- 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.

CONDITION OF EMPLOYMENT

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

- a salary starting from a minimum of € 2,395 to a maximum of € 3,061 gross per month (salary scale P)
- a full-time position (1.0 FTE)
- a holiday allowance of 8% gross annual income
- an 8.3% end-of-year bonus and participation in a pension scheme for employees.

The 1.0 FTE appointment is temporary for a specified period of four years. The preferred starting date is between May 1st and July 1st 2021.

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;
- (ii) A CV including publication list; and
- (iii) Names and contact details of three referees willing to write confidential letters of recommendation.

Please upload applications only according to instructions at www.conco2rde.eu. Address applications to: Dr. Sandy Schmidt

We are an equal opportunity employer and value diversity at our University. We are committed to building a diverse faculty so you are encouraged to apply. Our selection procedure follows the guidelines of the Recruitment code and European Commission's: European Code of Conduct for recruitment of researchers.

APPLICATION DEADLINE

31 January 2021 11:59pm Dutch local time



Innovative Training Network – European Joint Doctorates

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