

**Institut de chimie**

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***Exploring the connection between lipogenesis and pheromone signaling in the model organism *Caenorhabditis elegans****

• **PhD position in natural products chemistry**

The Laboratory for Bioanalytical Chemistry at the University of Neuchâtel (Switzerland) invites applications for a PhD research position at the interface of natural products chemistry, bioanalytical chemistry, chemical ecology, and biosynthetic studies.

Job starts: 1<sup>st</sup> February 2021  
Term: 4 years (renewable each year)  
Salary: [47'040 – 50'040 CHF / year](#)

**Job description:** The objective of the position is to perform and publish high quality research that explores pheromone biosynthesis in the model organism *Caenorhabditis elegans*, and ultimately earn a PhD in Chemistry. The successful candidate will work in close collaboration with another colleague and Prof. Stephan von Reuss. While the main focus of the position will be on research, the candidate will also participate in the supervision of practical laboratory courses for bachelor students at the Institute of Chemistry.

**Project description:** This project funded by the Swiss National Science Foundation (SNSF) will decipher the molecular and genetic basis of the biosynthetic steps that connect lipogenesis and ascaroside pheromone biosynthesis upstream of the canonical peroxisomal  $\beta$ -oxidation cycle in the model organism *Caenorhabditis elegans*. Using a combination of natural products isolation, structure elucidation, and total synthesis the candidate will identify biosynthetic intermediates that connect lipogenesis and ascaroside biosynthesis. Their orders of transformation as well as the underlying responsible genes will subsequently be characterized by analysis of mutant metabolomes and incorporation experiments with stable isotope labelled precursors

**Applicant profile:** Successful candidates hold a Master's degree in Chemistry with demonstrated practical experience in natural products chemistry. Expertise in multistep synthesis of organic molecules including their chromatographic purification and structure elucidation by NMR and MS techniques is highly desired. Basic understanding of biosynthetic pathways, especially lipogenesis, molecular biology, and microbiological techniques is an advantage. A good knowledge of English is required and French language proficiency for teaching duties is desired.

**Application procedure:** The University of Neuchâtel is an equal opportunity employer. Complete applications including (i) a cover letter with a statement of motivation and research interests, (ii) a detailed CV, (iii) a transcript of grades obtained in Bachelor's and master's programs, and (iv) the names and contacts of two references should be sent as a single .pdf file to [stephan.vonreuss@unine.ch](mailto:stephan.vonreuss@unine.ch) with the subject name "PhD application – [your surname]". Only complete applications will be considered. Application deadline: 15.11.2020; short-list selection: 16-20.11.2020; online interviews: 23-27.11.2020; final decision 30.11.2020; project start: 01.02.2021.

In case you require additional information please do not hesitate to contact Stephan von Reuss.

FACULTÉ DES SCIENCES

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