

PhD position
« Control of translocon assembly and protein
import into chloroplasts during early plant
development »,
Laboratory of Plant Physiology,
University of Neuchâtel

PhD project (from 01.09.2019, flexible)

The Kessler lab (University of Neuchâtel, Switzerland) invites applications for a PhD student position to contribute to its research on protein import into chloroplast. The project aims to identify and characterize the mechanisms controlling the assembly of the TOC TIC translocon machinery and protein import in response to plant hormones in early plant development¹²³. The student will apply state-of-the-art microscopy techniques, as well as molecular and biochemical approaches using the plant model *Arabidopsis thaliana*.

The project will be carried out in the laboratory of Plant Physiology in Neuchâtel (<https://www.unine.ch/physiologievegetale/LPV>) and at other collaborating groups in Switzerland, under the direction of Prof. Felix Kessler. The student will have opportunity to participate in the training program proposed by the Interuniversity Doctoral Program in Organismal Biology (<http://www.unine.ch/dp-biol/home.html>). Participation in the teaching of practical sessions at the Bachelor level is expected.

Requirements

Candidate should be a highly motivated student holding a Master Degree in Biology (or related discipline), with a good theoretical and practical background in cellular and molecular biology. Previous experience in Plant Biology is not a prerequisite.

Inquiries and Applications (including CV, cover letter, and name - address of at least two referees) should be sent to: felix.kessler@unine.ch

Review of applications will begin immediately and new applications will be accepted until the position is filled.

¹ Zufferey, M., Montandon, C., Douet, V., Demarsy, E., Agne, B., Baginsky, S., and Kessler, F. (2017). The novel chloroplast outer membrane kinase KOC1 is a required component of the plastid protein import machinery. *J. Biol. Chem.* 292, 6952-6964.

² Shanmugabalaji, V., Chahtane, H., Accossato, S., Rahire, M., Gouzerh, G., Lopez-Molina, L., and Kessler, F. (2018) Chloroplast biogenesis controlled by DELLA-TOC159 interaction in early plant development. *Curr. Biol.* 28, 1-8.

³ Shanmugabalaji, V., & Kessler, F. (2019). CHLORAD: Eradicating Translocon Components from the Outer Membrane of the Chloroplast. *Molecular plant*, 12(4), 467-469