

Position for a postdoctoral fellow, in the field of Molecular Plant Physiology

You will be working in the Laboratory of Functional Plant Biology at Ghent University in Belgium, headed by Dominique Van Der Straeten. The lab is renowned for its work in the areas of ethylene and vitamin biology, as well as on bio-imaging. See fpb.ugent.be for more information on our work. The lab is located close to the center of Ghent, which is one of the most attractive towns in Western Europe. Ghent is a lively, medium-sized city, possessing a beautiful Medieval center with stunning architecture and master pieces of art in its museums and cathedral.

The goal of the project is to explore the metabolism of the three-membered ring amino acid ACC, the direct precursor of the plant hormone ethylene, including ACC conjugation to known derivatives. Recently, ACC was proven to play a role on its own, alongside its function in the ethylene pathway. While the results of such groundbreaking research will have multiple potential applications in agriculture or horticulture, the work will essentially be of fundamental nature.

We aim at identification and characterization of factors in ACC metabolism, including ACC-interacting and conjugating proteins, as part of its signaling pathway, using molecular as well as *in silico* tools. *In vivo* validation will be performed in *Arabidopsis* and tomato. Affinity proteomics, *in silico* docking analysis, enzyme activity tests, mutant identification, phenotypic and genetic analyses will be part of the project. Analysis of ACC and its conjugates, as well as ethylene measurements will be performed, in different backgrounds and growth conditions, using established methods. Hence, the project offers the possibility to acquire a wide expertise. A broad interest is an obvious essential asset.

In addition to research, the successful candidate will also be involved in teaching of (part of) courses taught to Bachelor and Master students, in the subject area of (molecular) plant physiology and ecophysiology (plant-environment interactions). Thus, the candidate should present a strong interest in student coaching at the academic level as well.

The successful applicant holds a PhD degree in biochemistry, biology, biotechnology, or bio-engineering/applied biological sciences, not awarded earlier than 2,5 years prior to the appointment. We are looking for an enthusiastic scientist with postdoctoral experience of at least 2,5 years. Excellent laboratory skills, functioning well in a team, presenting a proven track record in the field of molecular plant physiology/biochemistry, endorsed by first author publications in high standard international peer-reviewed journals, are essential. A thorough knowledge of genetic and molecular-physiological techniques (including GoldenGate/GoldenBraid cloning, Q-RT-PCR, gas exchange measurements), and standard software packages (Microsoft Excel, Photoshop/Illustrator, RStudio) are a must. Expertise in *in silico* docking analysis and affinity proteomics is a strong asset. Experience with confocal microscopy is considered a plus. Communications and presentations at international conferences, as well as research experience in a country different from the country of origin are considered assets. Experience in leading research activities which resulted in Master theses is another plus.

The candidate should possess good didactic, communication and organization skills to support academic education at the Bachelor and Master's level in the fields of biology and biotechnology, in English, but preferably also in Dutch -given involvement in Bachelors' education.

The successful candidate will be part of a stimulating environment in a well-equipped lab and will be encouraged to apply for an academic position at Ghent University in the above-mentioned fields before the end of the term of this position. Applying for an ERC grant will be stimulated during the second year of this assignment, offering a perspective for such academic career in Ghent.

Applicants should be fluent in English (both in verbal and written communication) and have excelled in their studies (great distinction/magna cum laude in the curriculum; or a minimal GPA score 3,2 out of 4).

Contract: 3 years. Start date: March 1-15, 2024, at the latest May 1, 2024.

Application term closes March 15, 2024. Successful applicants will submit their application on the Ghent University e-recruitment system to complete the hiring process, after the selection round.

Please send:

- your CV, including your publication record, and a detailed description of your research achievements and skills;
- a motivation letter which mentions the date you have earned your PhD degree, and which explicitly details your expertise fit to the above-listed requirements, together with date of your earliest availability, and names and email addresses of 3 referees;

to:

fpbadmin@ugent.be (important ! mention 'postdoc ACC metabolism' in the subject line of the message).