

Postdoctoral researcher Insect Molecular Biologist/ Neuroentomologist

Faculty of Science – Swammerdam Institute for Life Sciences

The [Swammerdam Institute for Life Sciences \(SILS\)](#) is seeking a postdoctoral researcher for the EU-funded project VOLARE to study the molecular mechanism of plant volatile modification and perception by insects.

Project description

Plant leaves can emit large amounts of volatiles into the air. When attacked by insects, the composition of these blends changes markedly. It is well known that these changes can affect the behavior of insects interacting with the plant. This project is aimed at (1) unraveling pleiotropic effects of an insect derived modulator of plant volatiles and (2) increasing our knowledge on odorant perception and transmission in the model species, the sphinx moth, *Manduca sexta*.

You will be carrying out transcriptomic profiling of larval and adult insects. This includes RNAseq sample and sequencing, library preparation as well as bio-computational analysis of the data. You will furthermore perform protein affinity assays, embryo microinjections, GC-MS analyses, behavioural assays and bioassays with insect pathogens to functionally analyse genes of interest. You will also be end-responsible for the rearing of the *Manduca* colony.

This work will be done in close collaboration with the department of Evolutionary and Population Biology (EPB/IBED).

Requirements

You have:

- a PhD in Insect Molecular Biology or Neuroentomology;
- experience with all aspects of high throughput sequencing (such as RNAseq and post-sequencing bio-computational analysis), embryo microinjections and CRISPR/Cas9-technology as well as protein affinity assays;
- affinity with specialized plant metabolites as well as experience with behavioral assays (e.g. wind tunnel experiments, choice-assays, chemotaxis assays) is appreciated but not essential;
- excellent communication skills including a good command of the English language, be willing to supervise students and be keen to work in collaboration with people inside and outside the Plant Physiology group.

Appointment

The appointment will be initially on a temporary basis for a period of 1 year. After satisfactory evaluations this can be extended with 3 more years to a total duration of 4 years. Based on a full-time appointment (38 hours per week) the gross monthly salary will be maximal €3,389 in year one (scale 10-5). The [Collective Labour Agreement of Dutch Universities](#) applies.

Are you curious about our extensive package of secondary employment benefits like our excellent opportunities for study and development? Take a look [here](#).

Further information

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About the Faculty of Science

The [Faculty of Science](#) has a student body of around 6,500, as well as 1,600 members of staff working in education, research or support services. Researchers and students at the Faculty of Science are fascinated by every aspect of how the world works, be it elementary particles, the birth of the universe or the functioning of the brain.

The approximately 230 scientists and staff members of the [Swammerdam Institute for Life Sciences \(SILS\)](#) work in 16 research groups that perform excellent research, centred on four themes:

1. Cell & Systems Biology;
2. Neurosciences;
3. Microbiology and
4. Green Life Sciences.

The theme Green Life Sciences consists of 5 research groups: Plant Physiology, Molecular Plant Pathology, Developmental Genetics, Plant Cell Biology and Plant Hormone Biology. |

The research group Plant Physiology is interested in the mechanisms that allow antagonistic interactions to persist. We focus on plant-herbivore interactions to investigate:

1. the molecular and physiological basis of plant signaling cascades in response to biotic stress and
2. how insects can use and manipulate these stress induced plant responses.

Job application

The UvA is an equal-opportunity employer. We prioritise diversity and are committed to creating an inclusive environment for everyone. We value a spirit of enquiry and perseverance, provide the space to keep asking questions, and promote a culture of curiosity and creativity.

Are you interested? Applications may only be submitted online by clicking the link below.

<https://www.uva.nl/en/content/vacancies/2019/10/19-657--postdoctoral-researcher-insect-molecular-biologist--neuroentomologist.html>

Your application must include a curriculum vitae and a letter of motivation. Please combine these documents in one single attachment and also mention the months (not just years) in your CV when referring to your education and work experience. #LI-DNP