



## Postdoctoral position

In the evolution of mosquito preference for humans

*The Swedish University of Agricultural Sciences (SLU), Department of Plant Protection Biology, has an open position for a postdoc in the chemical ecology of disease vectors. The postdoc will assess how minor structural changes in odorant receptors over evolutionary time impact mosquito odour space and resulting host preference.*

The Department of Plant Protection is an interdisciplinary constellation with good opportunities for strong research collaboration within and outside the departmental area ([www.slu.se/en/departments/plant-protection-biology/](http://www.slu.se/en/departments/plant-protection-biology/)). World-leading research is conducted in chemical ecology/sensory biology, and successful research is also conducted in resistance biology and integrated plant protection. The research efforts are directed towards both fundamental and applied research.

The Disease Vector group at the Department of Plant Protection Biology conducts and promotes basic research on the chemical ecology of disease vectors in accordance with societal needs, nationally and internationally, and apply this know-how to develop novel surveillance and control tools to be used within the integrated vector management framework. Our multi-disciplinary approach, to study how odour-mediated behaviours of disease vectors are modulated by external chemosensory cues and internal physiological states, is directed towards the identification of targets for reducing host-vector interactions. Understanding the genetic causes and effects of host choice in sympatric, closely related species is challenging and of significant practical importance for controlling these rapidly evolving vectors (<https://www.slu.se/en/departments/plant-protection-biology/research/disease-vectors/>).

**Duties:** The research describes the genetic mechanism linking the basic molecular building blocks of the peripheral olfactory system with the ‘inherent’ host preference displayed by sibling malaria mosquito species using suitable techniques. The postdoc will be involved in a project that functionally characterises the effects of minor structural differences that change odorant receptor and receptor neuron response to host odours among three sibling species of malaria mosquitoes that display different preferences for humans as a host.

**Qualifications:** The successful candidate will hold a PhD, issued no earlier than 3 years ago. Experience with electrophysiological analysis, ideally single sensillum recordings from chemosensory neurons, is a requirement. In addition, a background in insect chemical ecology, especially experience with the heterologous expression of odorant receptor genes, ideally in the *Drosophila* empty neuron system, is a significant asset. S/he should be fluent in spoken and written English, and have excellent communication skills. The candidate must demonstrate a solid ability to work independently to advance our research. The candidate should furthermore enjoy working in a group environment and have interest in mentorship.

*Place of work:* Alnarp, Sweden

*Form of employment:* Stipend 1+1 year

*Extent:* 100%, Full time

*Starting date:* 15 August 2021

**Application:** Please submit your application with the subject “POSTDOC APPLICATION CT” to [sharon.hill@slu.se](mailto:sharon.hill@slu.se) no later than 21 May 2021.

*Specific documents attached:* Applications must contain (1) CV with full publications list, (2) copies of the two most important publications, (3) a description of research experiences, (4) a statement of scientific interests, as well as (5) contact information of two references.

SLU is an equal opportunity employer.