Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Department of Plant Protection Biology

Postdoctoral position

In evolution of mosquito preference for humans

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/). 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.

At the Department, one group focusses on the chemical ecology of disease vectors. Female mosquitoes are major vectors of human disease and the most dangerous are those that preferentially bite humans. Host selection and discrimination by mosquitoes are mainly odour mediated. Understanding the genetic causes and effects of host choice in sympatric, closely related species is challenging, controversial and of significant practical importance for controlling these rapidly evolving vectors (www.slu.se/en/cv/sharon-hill/; www.slu.se/en/cv/rickard-ignell/).

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 identifies the genetic changes resulting in 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. To investigate the mechanism underlying such functional changes in the receptors due to polymorphisms, the receptors will be functionally assessed in response to host odours. These findings will subsequently be investigated at the receptor neuron and behavioural levels.

Qualifications:
The successful candidate will hold a PhD, issued no earlier than 3 years ago. Experience with common molecular biological techniques is a requirement. In addition, experience with cell-based membrane protein expression and assay systems 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 year

Extent: 100%, Full time

Starting date: 1 January 2018

Application: We welcome your application marked **Mosquito Postdoc**.

Please submit your application to associate professor Sharon Hill (sharon.hill@slu.se) no later than **1 November 2017.**

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.

The Swedish University of Agricultural Sciences (SLU) develops the understanding and sustainable use and management of biological natural resources. The university ranks well internationally within its subject areas. SLU is a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture. SLU has just over 3,000 employees, 5,000 students and a turnover of SEK 3 billion. The university has invested heavily in a modern, attractive environment on its campuses in Alnarp, Umeå and Uppsala.
www.slu.se/en/

The Faculty of Landscape Architecture, Horticulture and Crop Production Science (LTV) at campus Alnarp has five departments. Education and research activities are focused around landscape architecture, horticulture, crop production and agriculture to meet the global challenge to provide the world's growing population with food, clean water, fibres, materials and energy using sustainable methods.
www.slu.se/en/faculties/ltv/

Further information:

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