

Three Postdoctoral research positions examining arthropod moulting

Job Information

Expected start date: 01.06.2021 or to be determined
Contract length: 1 year initially, renewable for additional 2 +1 years; maximum 4 years
Activity rate: 100%
Workplace: University of Lausanne, Faculty of Geosciences and Environment, Institute of Earth Sciences, Switzerland;
University of Lausanne, Faculty of Biology and Medicine, Department of Ecology and Evolution, Switzerland;
The Hebrew University of Jerusalem, Department of Ecology Evolution & Behavior, Silberman Institute of Life Sciences, Israel.

Introduction

The University of Lausanne (UNIL) is a higher teaching and research institution composed of seven faculties where approximately 15,000 students and nearly 5,000 collaborators, professors, and researchers work and study. Ideally situated along the lake of Geneva, near Lausanne's city centre, its campus brings together over 120 nationalities.

The Hebrew University of Jerusalem is the leading research university in Israel. It is composed of 7 faculties and 14 schools on 6 campuses, where over 23,000 students and 6,500 academic and technical faculty work and study. The Institute of Life Sciences is part of the Faculty of Sciences and is situated on the Edmond J. Safra Campus in Givat Ram, close to the government offices and national museums, and not far from the city centre.

Presentation

We are seeking three postdoctoral researchers for an interdisciplinary project examining the evolution of arthropod moulting, by integrating paleontological, morphological, molecular and genomic data. Two posts are available at the University of Lausanne in Switzerland and one position at the Hebrew University of Jerusalem, all for a maximum of 4 years. These positions are part of a Sinergia project funded by the Swiss National Science Foundation.

Post doc 1 will focus on data integration and building a database of moulting characteristics, which will form the basis of much of the research project. Working in the Evolutionary Bioinformatics lab (<https://bioinfo.unil.ch/>), this postdoc will supervise and be in charge of the scientific aspects of the database, working with a programmer who will be in charge of the software development aspects. They will work with other team members on subprojects examining phylogenomics and expression patterns of moulting genes and pathways, and moulting adaptations to terrestrialisation.

Post doc 2 will study moulting characteristics in a range of arthropods and examine comparative gene expression throughout the moulting process. This post-doc will work together with an animal maintenance technician to rear several species for analysis. This

work will be based at the arthropod evo-devo lab in Jerusalem (<https://www.bio.huji.ac.il/en/content/chipman-ariel>), and will integrate with ongoing work on the evolution of arthropod body plans.

Post doc 3 will conduct research on the paleontology of terrestrialisation. At the ANOM Lab (<https://wp.unil.ch/paleo>), the postdoc will lead a subproject examining the evolution of moulting behaviours and life history strategies during terrestrialisation events, by building a database of fossil moults and working collaboratively on identifying phenotypic and genomic patterns in terrestrialised arthropod lineages.

Your Responsibilities

80% of the engagement will be dedicated to research work.

20% of the engagement will be dedicated to teaching and administrative assistance, supervising research students, and/or contributing to general lab maintenance.

Your Qualifications

You must have obtained a PhD within the last 1-2 years in a relevant field of evolutionary biology, bioinformatics, paleontology, or other related fields. We will also consider candidates who plan to complete their PhD in the next 6 months. These posts are best suited to interdisciplinary researchers who are adept at working across different research fields.

For postdoc 1, a strong background in bioinformatics is required, and experience with database or ontology development is desirable. A strong interest in evolutionary biology is required.

For postdoc 2, a strong background in evolutionary biology and general zoology is required, together with experience in comparative genomics or transcriptomics. Experience working with arthropods is desirable, as is a background in evolutionary developmental biology.

For postdoc 3, a strong background in paleontology and evolutionary biology is required, and experience in working with fossil moults and/or conducting research on terrestrialisation is desirable.

For all postdocs, good spoken and written English are a prerequisite.

What the position offers you

You will join a four-lab network of researchers conducting an interdisciplinary study of arthropod moulting by combining multiple research disciplines. As a result, the postdocs will belong to an international collaboration, and travel to member labs to learn new research techniques and approaches. All labs offer state-of-the-art research facilities, and the universities represent vibrant academic environments covering a wide range of biology and earth sciences topics. These positions offer further opportunities for fieldwork, conference attendance, and professional training. The positions are fully funded. Salary and benefits are internationally highly competitive. Additional funding for consumables, computing, and to attend international conferences is available.

Contact for further information and informal enquiries

For postdoc 1, contact Prof. Marc Robinson-Rechavi (marc.robinson-rechavi@unil.ch).

For postdoc 2, contact Prof. Ariel Chipman (ariel.chipman@huji.ac.il).

For postdoc 3, contact Prof. Allison Daley (allison.daley@unil.ch)

Your application

Deadline: 1 April 2021

Only applications through the website mentioned below will be considered. Please send the following documents in a Word or PDF format:

- Your CV
- Publication list
- Copy of your diplomas
- Cover letter indicating your preferred start date and the postdoc(s) to which you are applying
- Statement of research experience and research interests (2 pages)
- Name and contact information of 3 potential referees

Additional information

Both UNIL and HUU are committed to promoting gender equality and strongly encourage applications from female candidates.