

The working group Molecular Parasitology (Prof. J. Walochnik) at the Institute of Specific Prophylaxis and Tropical Medicine of the Medical University of Vienna is looking for a highly motivated

PhD student (m/f/d) in the field of Medical Entomology/Parasitology working on the distribution and medical relevance of sand flies (Diptera: Psychodidae: Phlebotominae) in Austria

Working hours: 30h/week
Length of employment: 36 months
Deadline for application: November 30, 2022
Reference number: 2022/11

The project

The Horizon Europe project "Climate Monitoring and Decision Support Framework for Sand Fly-borne Diseases Detection and Mitigation with COst-benefit and Climate-policy MeasureS" (CLIMOS) is an international research project with more than 25 project partners (<https://twitter.com/CLIMOSproject>). The aim of the project is to support the containment of the emergence, transmission and spread of vector-borne and zoonotic pathogens caused by climate and climate change based on Eco-Health and One-Health approaches.

This will be achieved by quantifying climate and environmental factors of sand fly vector populations and sand fly-borne diseases (SFBDs) across Europe. Sand flies are the main vectors of the unicellular parasite *Leishmania* spp. and various arboviruses.

As part of the project, suitable locations throughout Austria are entomologically sampled for the presence of sand fly populations. Sand flies are determined morphologically and molecularly, and PCR-based pathogen detection is carried out. In addition, in close cooperation with veterinarians, dog sera are examined for the presence of antibodies against sand fly-borne pathogens.

Collected data will then be implemented into an early warning system (EWS) for decision support for more accurate climate and health modelling, forecasting of infection risk and spread.

Tasks

- Execution of your own research project in the frame of the doctoral program Public Health (N790) or the PhD program Infection Biology and Prevention (N094) (newly starting SS23)
- Entomological fieldwork in Austria (particularly 2023 and 2024)
- Morphological and molecular identification of medically relevant insects
- Molecular (PCR based) detection of pathogens

Necessary education, qualification and knowledge

- Completed master's degree in Natural Sciences or Life Sciences or (Veterinary-) Medicine
- Experience with entomological fieldwork (particularly willingness for travel activities in Austria)
- Experience with identification of insects (arthropods)
- Basic knowledge on molecular-biological methods (PCR based methods)
- Very good German (C1) and English (B2) knowledge
- Driving license category B

What we offer

- Dynamic, diverse, and supportive research environment
- High scientific standard and international science networks
- Salary based on the standard personnel cost salaries of the FWF
- The possibility to attend national and international conferences

Application

We are looking forward to receiving your application (reference number 2022/11) via mail to edwin.kniha@meduniwien.ac.at

Contact for further information

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