

Job Announcement Ref. #12-22011

The LOEWE Centre for Translational Biodiversity Genomics (LOEWE- TBG), <https://tbg.senckenberg.de>, is a joint venture of the Senckenberg Gesellschaft für Naturforschung (SGN), Goethe-University Frankfurt, Justus-Liebig-University Giessen and Fraunhofer Institute for Molecular Biology and Applied Ecology IME aiming to intensify biodiversity genomics in basic and applied research. We establish a new and taxonomically broad genome collection to study genomic and functional diversity across the tree of life and make genomic resources accessible for societal demand driven applied research.

The working group *Integrative Parasitology and Zoophysiology* (IPZ) of the Institute of Ecology, Diversity and Evolution, Goethe-University Frankfurt/Main, in cooperation with the Senckenberg Gesellschaft für Naturforschung and LOEWE-TBG invites applications for a

PhD position (m/f/d) – eDNA-based mosquito monitoring (part-time 65 %)

The monitoring of mosquitoes is of great importance for public health due to a large number of potentially transmissible pathogens. Rapid and robust detection of various mosquito species and their associated pathogens allows for quick and appropriate measures to protect human and animal health.

Our working group is using environmental DNA (eDNA) techniques to detect genetic traces of target organisms in water samples with modern microfluidic technology. The aim of the project is to develop an eDNA-MosquitoChip for the rapid, parallel detection of medically relevant mosquito species, e.g. the Asian tiger mosquito *Aedes albopictus*, as well as various mosquito-associated pathogens.

Your work will include the following aspects

- Collection of samples from native and invasive European mosquitos and other hematophagous insects
- Development of sensitive, species-specific marker systems optimized for environmental samples/bulk samples
- Establishment of a microfluidic detection system for rapid parallel mosquito/pathogen detection (eDNA-MosquitoChip)
- Development of standardized eDNA field and laboratory protocols
- Conduction of large-scale eDNA-based field screening
- Publication of results in international journals

Your profile

- Master's degree in Biology, Genetics, or a related subject
- Strong interest in innovative molecular biological methods, eDNA, medical entomology and/or applied health and ecological research
- Experience in working in a molecular lab environment
- Teamwork oriented and excellent communication skills with proficiency in written and oral English
- Class B drivers licence and flexibility for field work and sample collection

We offer you

- An interesting task in a dynamic team in an international research group within the new LOEWE TBG excellence centre with its 20 new research groups
- A relevant and timely research topic for a PhD project at the interface of molecular technology development, ecology, and human health
- Flexible working hours – leave of absence due to family reasons – parent-child-office – annual special payment – company pension scheme – Senckenberg badge for free entry in museums in Frankfurt, the Zoo, Botanical Garden and Palmengarten – leave of 30 days/year – a subsidy job ticket for public transport

Place of employment: Gelnhausen & Frankfurt am Main
Working hours: Part time (65%) **Type of contract:** 3 years, starting as soon as possible
Salary: according to the German collective agreement TV-H (pay grade E 13)

Senckenberg supports equal opportunity for men and women and places an emphasis on fostering career opportunities for women and under-represented groups. Qualified women and other under-represented groups are strongly encouraged to apply. Equally qualified applicants with disabilities will be given preference.

How to apply

Please send your application, mentioning the reference of this job offer (**ref. #12-22011**) until **11.09.2022**, by e-mail (**attachment in a single pdf document**) including a brief cover letter detailing your research interests and experience (1 page), a CV and copies of your certificates, transcripts and grades to:

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For scientific information please contact Prof. Dr. Sven Klimpel, sven.klimpel@senckenberg.de (vector biology, parasitology); see also “Genomic Biomonitoring” at <https://tbg.senckenberg.de>.