

Scope of Work: UCIMI Program Assistant Entomologist in São Tomé e Príncipe (STP)

Purpose of Work

The University of California Malaria Initiative (UCMI) is a not-for-profit research collaborative with a mission to contribute to the eradication of human malaria by genetically engineering mosquito populations to prevent malaria transmission, in direct partnership and collaboration with local scientists, public health officials, government representatives, and communities in an ethical and transparent manner.

UCMI is implementing a research project to assess the feasibility of conducting a field trial of genetically modified mosquitoes with gene drive for malaria control in São Tomé and Príncipe (STP). Field entomological research is a critical component of the UCMI project in STP. The entomological data collected will inform downstream research including the production of mathematical models, risk assessment and evaluation of the feasibility of employing novel genetics-based malaria control approaches. The Assistant Entomologist will play an essential role in attaining these goals.

Role and Responsibilities

The Assistant Entomologist will be responsible for assisting the UCMI Field Project Manager in planning, supervising, and conducting field and laboratory entomological activities, including logistics, and collaborate in training activities. He/she will work under the supervision of the Field Project Manager and in close collaboration with PNLP senior entomologists, to ensure that all entomological activities run smoothly, research data is duly collected and biological samples properly curated.

The Assistant Entomologist will also liaise with other professionals of the UCMI research and engagement teams, to provide support in the development of specific field research activities within the scope of the UCMI program.

The Assistant Entomologist will attend UCMI meetings related to work conducted in STP as needed and must be prompt and timely in attendance of scheduled appointments, and must respond to email, text or phone communication within 24 hours.

This position will require the individual to work every day during the regular business week as well as some evening, weekend and holiday hours. Schedule will be determined based on research needs and the direction of the UCIMI Field Project Manager.

Deliverables

The Assistant Entomologist will provide assistance:

- Planning and implementing field entomological work, including logistics, actively participating in mosquito collections and bioecological surveys.
- Monitoring entomological data collection and sample preparation for lab processing and/or shipment.
- Routine Insectary activities including colony maintenance and managing supplies and personnel in both USTP and CNE insectaries.
- Implementing entomological lab techniques such as morphological identification, mosquito dissections and insecticide susceptibility assays.
- Implementing and optimizing basic molecular techniques such as PCR-based assays for mosquito identification, ELISA for blood meal analysis and molecular genotyping of insecticide-resistance associated mutations.

- Training of personnel in entomological and molecular biology techniques to be implemented at CNE and USTP laboratories.
- Preparation of didactic materials and lecturing in courses and workshops.

Qualifications

The Assistant Entomologist will have experience in the implementation of autonomous research activities in entomology with focus on mosquito vectors of disease. A higher education degree in biological or biomedical sciences is preferred. The Assistant Entomologist will have proven knowledge and experience in:

- Planning and implementing field research activities on the bioecology of mosquito vectors.
- Laboratory skills in entomological techniques for mosquito vectors, including morphological observations, dissections, insectary management and colony maintenance, and insecticide susceptibility tests.
- Basic knowledge and previous experience in molecular entomology techniques.
- Basic knowledge and previous experience in research data collection and analysis.
- Good managerial and communication skills.
- Fluency in Portuguese and Advanced English language skills.

Contract timeline and cost of services

The Assistant Entomologist contract will be for 12 months (January 2022 – January 2023).

The Assistant Entomologist will receive a set monthly salary as well as a monthly stipend to cover costs of transportation, internet, phone, and other consumables. The total monthly payment will be determined based on previous experience and qualifications. The Assistant Entomologist will be responsible for submitting a monthly invoice for each payment detailing work/deliverables completed prior to the receipt of payment.

The contract may be extended to meet identified project needs beyond the 12-month timeframe. The contract will be extended if both parties (UCMI and Assistant Entomologist) agree to extend the contract, deliverables of this contract are met, and funding availability of UCMI is available. If the contract is to be extended, the UCMI team will determine an adjusted scope of work, deliverables, contract timeline and request a contract extension in December 2022.

Where the Work Will Be Performed

The work of the Assistant Entomologist will be performed in STP. The Assistant Entomologist will be based in the city of São Tomé. Regular travel to Príncipe Island is predicted to carry out field work and training actions in the scope of the UCMI project.

Ownership of Work

Any product (e.g., presentation, training, written documentation) created by the Assistant Entomologist as result of this contract will be owned by the University of California.

Funding for Contract

Funding for this contract will be provided by the Open Philanthropy project grant that has been awarded to University of California Davis.

Applications

Interested candidates should send by email a letter of interest and *Curriculum vitae* (maximum 5 pages) to Ana Kormos: akormos@ucdavis.edu