



KILIMANJARO CHRISTIAN MEDICAL UNIVERSITY COLLEGE
(A Constituent College of Tumaini University Makumira)

Call for PhD fellowship in molecular biology (1 position).

Project Outline

The Danish Ministry of Foreign Affairs through the Consultative Research Committee for Development Research (FFU) has recently granted the research project: *Predicting vector-borne disease epidemics: Dissemination of risk forecasting using District Health Information Software2 in Tanzania (PreVBD)* full support including funding for a PhD fellowship with a focus on *vectors and pathogens (dengue and malaria), molecular biology and bioinformatics*.

The objective of the study is to identify important climatic and socio-ecological drivers of vector distribution, abundance and disease transmission for different geo-spatial settings of Unguja (Zanzibar) and Tanga region, mainland Tanzania. The study of the PhD fellow will include, but not limited to, molecular methodologies (e.g. PCR, qRT-PCR, ELISA and next generation sequencing (NGS)) to determine vector speciation and pathogen-infection based on two-years monthly sampling of mosquito vectors of malaria (*Anopheles*) and arbovirus (*Aedes*). The study will also include determination of vector-bite exposure (IgG to mosquito salivary gland proteins) and pathogen exposure (IgG to malaria and arbovirus antigens) of the individuals living in the field sites by biannual cross-sectional surveys. There will be fieldwork activities for the PhD fellow but most work will be laboratory-based. Activities will be in close collaboration with a larger team of local and international researchers working on the PreVBD project. Obtained results including baseline demographics will be correlated to climate and ecology over the sampling time for prediction of vector distribution, abundance and risk of vector-borne disease infection.

Qualifications

- Candidates are required to hold a relevant Master of Science degree within the field of natural sciences in learning institution recognized by Tanzania Commission of Universities (TCU)
- Experience with molecular techniques is considered essential. Prior training/experience with molecular techniques, NGS and bioinformatics will be considered an advantage
- Candidates must have strong communication skills in English, both oral and written
- Previous publications/work related to the research theme is considered an asset
- Willingness to commit full time effort to his or her PhD training programme
- Female candidates are encouraged to apply

Application

Applications must include the following documents:

- Cover letter describing why you wish to undertake this fellowship and how this study may further your career (max. 1 page)
- Short concept note focusing on the subject of the PhD call with particular focus on climate changes and risk of vector-borne diseases in Tanzania (max. 2 pages, excluding references)
- Recent CV indicating previous and/or current employer(s) and position(s) held, as well as a list of peer reviewed publications (if any). Max 2 pages in Europass format
- Certified copies of academic transcripts and relevant certificates
- Pass in first degree with a minimum of upper second class (GPA 3.5 or above)
- Letters of recommendation from two referees including phone numbers and e-mail addresses

Please note that all shortlisted candidates are required to attend a **selection interview** and to give a 10 min **presentation of the concept note** as part of this interview. If necessary, these interviews may be conducted virtually via Zoom or skype. The date of interview will be communicated **within 2 weeks** of the application deadline. Final selection of the candidate will be determined by the interviewer committee and communicated. Only shortlisted applicants will be contacted.

Application deadline

Applications must be submitted by e-mail to Principal Investigator Michael Alifrangis, through micali@sund.ku.dk, and copied to Project coordinator Amina Farah at amifa2001@gmail.com before 01.02.2021. Applications received later than this date will not be considered. Further details may be obtained via above e-mails.

PhD enrolment and evaluation

The successful candidate **will be enrolled at a Kilimanjaro Christian Medical University College (KCMUCo), Moshi, Tanzania** and offered a 3-year PhD scholarship covering university fees, research costs and a student stipend in accordance with national/institutional regulations. The PhD supervision will be a joint effort between KCMUCo, National Institute for Medical Research (NIMR)-Tanga Centre, State University of Zanzibar (SUZA) and the University of Copenhagen (UoC). The PhD fellow will have the opportunity to take advanced courses at both KCMUCo and UoC, Denmark. Evaluation of the progress of the PhD activities will be done according to current regulations at the University of enrolment.

Commencement

The program is scheduled to commence during the academic year of 2021.

The PreVBD project is funded by the Danish Ministry of Foreign Affairs (Danida) and administered by the Danida Fellowship Centre (DFC). The Project is headed by University of Copenhagen in collaboration with Kilimanjaro Christian Medical University College (KCMUCo), National Institute for Medical Research (NIMR)-Tanga Centre, State University of Zanzibar (SUZA), University of Dar es Salaam (UDSM), Danish Technical University (DTU), University of Gothenburg (UoG), and Joint Malaria Programme (JMP).



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