

Post-Doctoral Fellowship in Collective Health

São Paulo Research Foundation – FAPESP

São Paulo, Brazil

Job description

A FAPESP-funded Post-Doctoral position is now open at the INterdisciplinary CLimate INvestigation cEnter (INCLINE), located at the Institute of Astronomy, Geophysics and Atmospheric Sciences, University of São Paulo (IAG/USP), São Paulo, Brazil, as part of the “Mosquitoes populations modelling for early warning system and rapid response public by health authorities correlating climate, weather and spatial-temporal mobile surveillance data” (MEWAR) project.

The MEWAR is a new trans-interdisciplinary project which seeks to bring together digital public health, computer sciences, urban water/waste sanitation treatment technologies, meteorology and climate modelling to one arena in order to evaluate the impacts of broader climatic and environmental changes on breeding habitats for mosquito-borne arboviruses in Northeast Brazil. This project is an international consortium led by renowned academics from Brazil, Turkey and United Kingdom; the research situates itself in two major cities that were hit hard by the Zika Virus epidemic in 2016, Recife (Pernambuco) and Campina Grande (Paraíba). Further details about this project can be found at <https://www.ucl.ac.uk/risk-disaster-reduction/research-projects/2020/jun/mosquito-population-modelling-early-warning-system-and-rapid-health>.

We are seeking applications from talented, organised and highly motivated scientists for a trans-interdisciplinary project that will demand a close collaboration with our partners from University College London (UCL, United Kingdom), Boğaziçi University (Turkey), and from two other Brazilian universities: the Federal University of Pernambuco (UFPE) and the Federal University of Campina Grande (UFCG). In addition, the selected candidate will be required to work on field trips at the cities of Recife and Campina Grande.

Some of the activities that can be developed by the selected Post-Doctoral candidate include:

1. To provide local knowledge and design a specification of an m-training application to support community health and field workers in improving their knowledge and awareness of surveillance protocols related to Zika. Initially, our target users are health agents and their supervisors at the municipalities of Recife, Olinda, and Campina Grande. The activity will include co-creation and co-development to design the app to the local needs and collaboration with the UCL team in London on the SW development.

2. To lead a pilot program, mainly a participatory geographical surveillance GPS-tagged mapping of all mosquito infected places using mobile devices, and community engagement to provide timely information for public health experts and policy makers at the aforementioned municipalities.
3. To work on running climate numerical simulations, data processing and analysis (including large gridded datasets), and field trips and data collection missions.
4. To investigate the impact of longer-term environmental changes on mosquito occurrence under different climate change scenarios, through the use of downscaling atmospheric simulations.

This opportunity is open to candidates of any nationalities. The selected candidate will receive a FAPESP's Post-Doctoral fellowship at the amount of R\$ 7,373.10 per month and a research contingency fund, equivalent to 15% of the annual value of the fellowship, which should be spent in items directly related to the research activity. The fellowship has a maximum duration of 36 months.

Applicants should send their CV, a letter of intention and a letter of recommendation by **August 23rd, 2020** to incline.aca@iag.usp.br. All the submitted documents must be in English. Requirements of FAPESP PD fellowships can be found at <http://www.fapesp.br/en/postdoc>.

The final selection will be announced up to August 28th. After selection, documents will be sent to FAPESP for approval, and the activities should start in September/October.

Areas of Research

- Medical sciences, biochemistry;
- Data science for biochemistry, live science, and physiology.

Duties and Responsibilities

- To contribute to the research agenda on the MEWAR project around data science for early warning systems for mosquito populations in Northeast Brazil;
- To support the Professor at USP by coordinating the projects activities, reporting, filing, communications between PI in London and Istanbul and external partners and stakeholders including University of Recife and Campina Grande where the field work and data collection take place;
- To coordinate internal and external meetings and field trips agendas in Brazil including taking minutes and following on action points;
- To be involved in setting up and running empirical activities (to include data collection, data analytics, focus groups experiments in the study areas in Recife and Campina Grande, etc.) in consultation with the Principal Investigator and Co-Investigators ensuring that experiments are appropriately supervised and supported. To record, analyze and write up the results of experiments in a timely fashion and publish research papers;
- To represent the projects at workshops and conferences and contribute to the drafting and submitting of papers to appropriate peer reviewed journals and conferences;

- To develop and content manage web pages for projects and external and internal communication.

Person specification

All criteria are essential unless specified otherwise.

Knowledge – including Qualifications

- Postgraduate PhD degree in medical and biological since (desirable: PhD in biochemistry or health related subjects);
- Knowledge of research techniques and methodologies.

Skills

- Research skills (theoretical and empirical, planning and documentary);
- Research project management and co-ordination (desirable: coordination of project related to medical and biological and physiological subjects);
- Ability to analyze and write up data using scientific methods;
- Effective written and verbal communication skills;
- Excellent organizational and project coordination skills;
- Serving committees and minute taking.

Experience

- Experience of working in a research environment;
- Experience working in medical settings;
- Experience in working with protocols, data collection in medical and biochemical settings;
- Experience of working in Northeast Brazil and engagement of non-academic stakeholders for the field work and data collection (desirable);
- Proven track record in publishing high quality research in journals and conferences;
- Experience with running focus groups with members of public;
- Experience with engaging stakeholders from other sectors (such as municipality, community leaders, health, environmental and water agencies, etc);
- Experience with data collections from patients, hospitals, environmental agencies etc;
- Experience working in laboratory settings.