UCSF: Malaria Elimination Initiative Post-Doctoral Research Fellow in Spatial Statistical Modeling

The Global Health Group, University of California, San Francisco

The Global Health Group is an “action tank,” dedicated to identifying, elaborating and translating innovative solutions to major global health challenges into large-scale action, to advance health and save lives in low- and middle-income countries. The Global Health Group works across the spectrum, from conducting research and policy analysis, to building consensus, to catalyzing the development and implementation of pioneering programs in collaborating countries. Organizationally, the Global Health Group is a component of UCSF Global Health Sciences. The Global Health Group’s Malaria Elimination Initiative (MEI) is a leader in providing intellectual and practical leadership and support for the elimination of malaria.

The MEI currently has several ongoing projects related to improving the access and use of spatial and environmental data for malaria elimination and surveillance. These include ongoing research studies in Asia Pacific and southern Africa focusing on detecting asymptomatic carriers of malaria parasite infection through novel household and social network surveillance methods, a new project to gather and generate evidence around novel and aggressive vector control approaches for malaria elimination that go beyond standard vector control tools, and direct program support for high-resolution risk mapping to allow interventions to be targeted to areas most at risk of malaria. In each of these, the MEI is seeking to apply cutting-edge geospatial modeling techniques. Specifically, geostatistical modeling approaches will be used to examine the impact of targeted surveillance approaches on the spatial distribution of malaria infection in ongoing research study sites, to evaluate the historical contribution of vector control and other environmental, climatic, and socioeconomic factors to changes in malaria disease burden globally, and to support a collaborative project with Google Earth Engine focused on generating an online platform for automated risk mapping.

The Malaria Elimination Initiative Post-doctoral Research Fellow

The Global Health Group MEI seeks to engage a Post-doctoral Fellow with experience and expertise in spatial statistical methods to contribute to statistical modeling activities across a number of MEI projects. Working under the mentorship of UCSF faculty/MEI project leads Drs. Adam Bennett and Hugh Sturrock, the Post-doctoral Fellow will work with a team of MEI staff and consultants, contributing analytical support to key projects, leading specific modeling analyses, and taking lead responsibility for activities toward several key project deliverables. The Fellow will also contribute actively to dissemination of results through preparation of manuscripts for publication in peer-reviewed journals and presentations at international meetings and conferences.
This is a full-time position, based in San Francisco, California at the University of California, San Francisco Mission Bay campus. It is currently fully funded from July 1, 2015 through December 31, 2016. Periodic international and domestic travel of 1-2 weeks will be required.

**Required skills**

- PhD in spatial statistics or related field
- Exceptional analytical skills and experience with geostatistical modeling, ecological niche modeling or other related spatial/spatio-temporal statistical methods
- Experience with R programming language
- Experience with Bayesian statistics
- Strong writing skills; experience preparing articles for publication in peer-reviewed journals.

**Desirable skills**

- Knowledge of malaria epidemiology, particularly in low transmission settings
- Experience with remotely sensed data and GIS
- Enthusiasm for learning new coding and scripting skills, including JavaScript and Python.

For more information, please contact Hugh Sturrock at hugh.sturrock@ucsf.edu or Adam Bennett at adam.bennett@ucsf.edu. To express interest, please forward your CV and a cover letter describing your interest and qualifications.

Further information about the Global Health Group and its Malaria Elimination Initiative can be found at [globalhealthsciences.ucsf.edu/ghg](http://globalhealthsciences.ucsf.edu/ghg).

Additional information about health and welfare benefits, and other institutional support for UCSF Postdoctoral Fellows can be found at [http://postdocs.ucsf.edu/](http://postdocs.ucsf.edu/).