Training in Geospatial Analysis of Disease Vectors

Call for Applications

Workshop Theme: Using Geographic Information Systems and Remote Sensing to study disease vector habitat

Biotechonology Research Institute (BRI) in collaboration with Yale University (School of Public Helath, Institute for Biosphehric Studies and the Department of Ecology and Evolutionary Biology) invites applications for a geospatial analysis workshop. to be held on June **1 - 6, 2015** at TRC Campus in Muguga Kenya.

BRI, formally Trypanosomiasis Research Centre (TRC), is one of the 16 main Institutes of the Kenya Agricultural and Livestock Research Organisation (KALRO). BRI is mandated to carry out research and develop technologies for effective control of tsetse and trypanosomiasis in Kenya. BRI works with government agencies, regional research and academic institutions to strengthen the biomedical capacity in the areas of vector biology and ecology, parasite biology, drug resistance, diagnostics, parasite/vector genetics, applied genomics/bioinformatics, vector control, data analysis/ management/ presentation and development of animal disease models. BRI is a founder member of Eastern African Network of Trypanosomiasis (EANETT), a regional network consisting of lead institutions with governmental mandates to work on African trypanosomiasis in Kenya, Uganda, Tanzania, Malawi, Zambia, Sudan, South Sudan and Democratic Republic of Congo. BRI is also a WHO-TDR reference trainning center in project management for health research Yale School of Public Health (YSPH) is working with the BRI and their collaborators to strengthen capacity in biomedical research, including geospatial analysis of disease vectors.

Workshop Scope: The workshop will introduce participants to Geographic Information Systems (GIS) and satellite-based remote sensing technologies.   Students will use the provided suite of open-source software to manipulate GIS data and satellite images to create basic species habitat models. There will be a special focus on identifying and mapping tsetse fly habitat.

Learning outcomes
At the end of the course, the participants will gain:
1. Skills working with a variety of spatial data.
2. Ability to extract information from satellite images.
3. Understanding of spatial modeling functions and project design.
4. Ability to work independently on future projects using these software tools.

Requirements
Basic computer knowledge
Have a laptop computer
Prior experience in GIS will be an added advantage.

Target Audience
Postgraduate students, postdoctoral scientists, and academicians.

Preliminary Program
* Introduction to the Linux operating system within the Virtual Box
* Environmental considerations of tsetse fly habitat
* Introduction to GIS
* Basic concepts of remote sensing and satellite imagery
* Introduction to spatial ecological modeling
* Using the command line and batch processing to increase power and efficiency
* Develop a species habitat model
* Where to find satellite images and geospatial data
* Consultation on individual project design and goals

Registration for Participation: Registration and lunch will be covered by the sponsors. Participants are expected to take care of their own accommodation, local, and international travel expenses to and from BRI, Muguga, Kenya. Full board is available at $55 per day. The number of applicants is limited to 30. The organizers have limited competitive travel and accommodation fellowships for at most five exemplary applicants unable to cater for their expenses. Please indicate your support needs to the organizers when you apply.

Application Criteria: Interested applicants are required to submit the following documents:
1) Application cover letter (please describe your background, personal area of interest and potential synergy between the training and your career– limit to 1 page)
2) Curriculum vitae
3) Two recommendation letters from persons familiar with the applicant's potential

Duly completed application and supporting documents should be submitted via e-mail to Drs. Gisella Caccone, (adalgisa.caccone@yale.edu) and Paul Mireji (peterpaul.mireji@yale.edu)

CLOSING DATE: April 31, 2015