TWO POST-DOCTORAL FELLOW POSITIONS

Epidemiology and Infectious Disease Population Dynamics

An exciting opportunity exists to join the highly innovative, intra-disciplinary Global Epidemiology and Biostatistics Group led by Prof. Edwin Michael at the University of Notre Dame in the Department of Biological Sciences and the Eck Institute for Global Health.

The successful candidate for the Epidemiology position will have an interest in analyzing patient-level health data using advanced multivariate and mixed model methods, including repeated measures models for analyzing longitudinal data. The overall project is to evaluate impacts of health intervention programs (e.g., multi-country HIV/AIDS, child development, maternal health) and to use secondary data to investigate risk factors for disease and associations between diseases. The ability to use new statistical methods, particularly Bayesian approaches, will be advantageous. Candidates must be well versed in managing and manipulating large and complex health databases. Expertise in R and/or WinBUGS will be an added advantage.

The successful candidate for the Infectious Disease Population Dynamics position must be proficient in mathematical model construction and analysis and interested in the application of these methods to the development, fitting, and analyses of a suite of infectious disease models, from compartmental SIR-type models to more complex macroparasite transmission models. Our current work encompasses the formulation, validation, and dynamical analyses of major vector-borne, environmentally-mediated, and multi-pathogen models. Knowledge of the application of both analytical and numerical methods in model analysis will be essential. Expertise with individual-based and/or spatially explicit modeling techniques will be an added advantage. Experience with data-model assimilation methods will be important as a key focus of our work is to apply models to data from partners across the world in order to gain a better understanding of pathogen transmission and control at both local and global settings. Programming skills in Matlab and C are essential, and skills in R and parallel computing are an advantage.

The successful candidates for both positions should:

- Have completed a PhD or equivalent degree
- Be willing to travel internationally
- Have strong written and oral communication skills, including the ability to publish research results and make scientific presentations
- Be expected to contribute to and collaborate with faculty and students within the Departments of Biological Sciences, Applied and Computational Mathematics and Statistics, Computer Science and Engineering, and the Center for Research Computing
- Demonstrated ability to work independently under minimal supervision, as well as within a team environment with a strong commitment to team-based processes and outcomes
**Location:** Notre Dame, Indiana, USA

**Tenure:** Both positions have funding available for 2 years in the first instance

**Salary:** Based on NIH guidelines for postdoctoral fellow salaries

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**ABOUT THE UNIVERSITY OF NOTRE DAME**

The University of Notre Dame is committed to diversity ([http://diversity.nd.edu/](http://diversity.nd.edu/)) in its staff, faculty, and student body. As such, we strongly encourage applications from members of minority groups, women, veterans, individuals with disabilities, and others who will enhance our community. The University of Notre Dame, an international Catholic research university, is an equal opportunity/affirmative action employer.

Information on the Eck Institute for Global Health may be found at [http://globalhealth.nd.edu](http://globalhealth.nd.edu)

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**APPLICATION PROCESS:**

Qualified individuals should send in PDF format a cover letter, curriculum vitae, statement of research interest, and three letters of reference to search committee chair, Dr. Edwin Michael at eigh@nd.edu. Files must be clearly named and identify the position you are applying for. Review of applications will begin on 1 March 2013 and continue until suitable candidates are identified. For additional information about working at the University of Notre Dame and various benefits available to employees, please visit [http://hr.nd.edu/employment/working_at_nd.shtml](http://hr.nd.edu/employment/working_at_nd.shtml).