



Postdoctoral Fellowship in Epidemic Modeling of Tuberculosis

Johns Hopkins Bloomberg School of Public Health – Baltimore, MD, USA

Fellowship Description

Applications are invited from recent PhD or MD graduates for a full-time, two-year postdoctoral fellowship with a focus on mathematical modeling of tuberculosis, starting April or May 2012. Potential research projects include:

- Modeling the impact of diagnostic strategies for TB, including HIV-associated TB and drug-resistant TB
- Modeling targeted or “hotspot”-focused TB control strategies, including case-finding, vaccination, and access to care
- Combined epidemic-economic modeling to evaluate the cost-effectiveness of TB control after accounting for transmission
- Modeling strategies for deployment of novel TB drug regimens, including supporting drug susceptibility testing

We seek to identify a talented and motivated individual with a background in epidemiological modeling of infectious diseases to join our team. This individual will function as a junior investigator, participating fully in research and related scholarly activities in the Department of Epidemiology. We anticipate that this individual would serve as first author on multiple research projects, and (s)he would be encouraged to apply for an independent research position by the end of the fellowship. The salary range for this fellowship is \$50,000 - \$55,000, plus benefits including basic health insurance. Further information on postdoctoral fellowships at the Bloomberg School of Public Health can be found at <http://www.jhsph.edu/academics/postdoctoral-training>.

Applicants must have:

- ✓ A recent MD or PhD degree (expected graduation in May 2012 is acceptable) with a background in epidemiology, infectious diseases, applied math, or a related discipline.
- ✓ An excellent academic record, with good quantitative, verbal and communication skills.
- ✓ Ability to work as part of a highly collaborative, interdisciplinary, open-source-oriented, electronically-connected team.
- ✓ Research experience in epidemiological modeling of infectious diseases, including the construction of transmission models (compartmental or individual-based), fitting of models to data, sensitivity and uncertainty analysis, and preparation of reports/manuscripts. Experience with TB modeling and/or economic modeling (e.g., cost-effectiveness analysis) is preferred but not essential. Individuals with exceptional quantitative backgrounds, including a knowledge of TB epidemiology but no prior modeling experience, may be considered; those looking for lab-based experiences will not.
- ✓ Interest in constructing models of practical utility to decision-makers (i.e., within-host modeling, ecological modeling, etc., cannot be priorities of the fellowship).
- ✓ Fluency with a relevant programming language (R or python preferred, MATLAB and others acceptable).
- ✓ Fluency in written and spoken English.
- ✓ U.S. citizens preferred; international applicants (J1 visa) will be considered, but a 2nd year of funding cannot be guaranteed.

Research Team

The TB Modeling Group at the Johns Hopkins Bloomberg School of Public Health is a rapidly growing and energetic team, led by Dr. David Dowdy (<http://www.jhsph.edu/faculty/directory/profile/5157/Dowdy/DavidW>). Our projects span more than 15 researchers (mostly trainees and junior investigators), 10 institutions, and 10 countries. We have strong ties to the Johns Hopkins Center for Tuberculosis Research, a multidisciplinary organization that includes basic scientists, epidemiologists, modelers, and physicians. We are funded by diverse agencies including the U.S. National Institutes of Health, Canadian Institutes for Health Research, product development partnerships (e.g., Global Alliance for TB Drug Development), and the Bill & Melinda Gates Foundation.

Application Procedures

Interested applicants should submit a two-page cover letter (including a statement of research interests and prior experience), CV, and contact information (email address and phone number) of 3 referees, to Dr. Dowdy at ddowdy@jhsph.edu. Applications submitted by Dec. 21 will be given priority; initial interviews will be conducted between January 2-11 with selections made immediately thereafter. This position will remain open until filled. Please contact Dr. Dowdy by email with any questions.