University of Pittsburgh

Graduate School of Public Health
Public Health Dynamics Laboratory

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POSTDOCTORAL FELLOWSHIP

The Public Health Dynamics Laboratory at the University of Pittsburgh Graduate School of Public Health, invites applications for a full-time postdoctoral fellowship position to expand our research program on public health data integration and modeling.

Position summary

As part of the PHDL, the Post-doctoral Fellow will work in a highly dynamic, inter-disciplinary environment to develop a research program in the acquisition, integration, and analysis of public health data. The incumbent will work in a team of epidemiologists, computer scientists, data scientists, and software developers to expand the Project Tycho data system (www.tycho.pitt.edu). This will include both novel data sources and innovative data science methods. The overarching goal is to expand Project Tycho into a global, open access resource for public health data.

Environment

The PHDL is a world-class, inter-disciplinary modeling institute at the University of Pittsburgh focused on the development of agent-based simulators to represent transmission of infectious diseases. The PHDL coordinates various large-scale international modeling grants including an NIH funded Center of Excellence of the Models of Infectious Disease Agent Study (MIDAS) and the Gates Foundation funded Vaccine Modeling Initiative (VMI). In addition to world-class modeling, the PHDL hosts a comprehensive data infrastructure named Project Tycho that aims to improve access and use of public health data for decision making. The PHDL has strong links to the NIH Big Data to Knowledge (BD2K) initiative through collaboration with the University of Pittsburgh Department of Biomedical Informatics. The PHDL is at the center of international modeling and data science, maintaining collaborations with academic institutions and health authorities in Europe, Southeast Asia and Latin America, and with various global health agencies such as the US Centers for Disease Control and the World Health Organization. The PHDL offers a competitive package of research and training activities for this position that includes training with world-class investigators including Dr. Donald Burke, PI of the MIDAS and VMI grants and Dean of the University of Pittsburgh Graduate School of Public Health and Dr. Mark Roberts, Director of the PHDL. Post-doctoral fellows will have access to University-wide resources such as the Clinical and Translational Science Institute (CTSI), the Innovation Institute, and the Office of Academic Career Development.

Responsibilities

- Develop a research program on the acquisition, integration, and analysis of public health data with a focus on infectious disease data, particularly for vaccine preventable diseases, Chikungunya, and dengue. Data will be used from both traditional sources (e.g. disease surveillance systems, genomics, climate, census) and novel sources (e.g. social media).
- Develop new analytical methods to visualize large scale disease data and to detect patterns of associations between disease transmission and climate/demographic determinants.
- Work with project PI's, research programmers, and students, to advance the conceptual design and implementation of research on public health data integration and analysis.
- Engage in training and professional development opportunities to advance relevant skills and expertise, as indicated by project PI's
- Maintain strong relationships with academic partners and health agencies in the US and abroad; this may require domestic and international travel
- Publish articles in peer-reviewed journals
- Present research in scientific conferences
- Support project PI's in the development of proposals for research funding
- Mentor and supervise graduate and undergraduate students for public health data research

Selection criteria: mandatory

- PhD in a relevant domain (e.g. Biology, Epidemiology, Biomedical Informatics, Information Science)
- Demonstrated understanding and/or interest in public health data in one or more of the following domains: disease surveillance, environment, demographics
- Demonstrated understanding and/or interest in methods to integrate data
- Demonstrated experience in visualizing and /or analyzing large scale (public) health data
- Excellent communication and inter-personal skills
- Proven ability to work in a multi-disciplinary and multi-cultural team
- Proven ability to disseminate research in English at conferences and in peer-reviewed journals
- Demonstrated knowledge and application of the principles underpinning successful grant applications
- Evidence of ability to generate new ideas and build upon existing ideas to generate unique concepts and solutions
- Fluency in English language speaking and writing skills
- Professional working knowledge of Spanish or French language

Selection criteria: desirable

- Experience in database and/or web programming
- Experience in web development
- Experience with data representation formats such as XML or JSON
- Experience with a statistical or GIS software program such as R, SAS, STATA, and ArcMap
- Work and travel experience in Latin America or South(east) Asia
- Knowledge of vaccine preventable disease, Chikungunya and/or dengue virus epidemiology

Compensation
This position will be funded by the NIH Models of Infectious Disease Agents Study (MIDAS) and the Bill & Melinda Gates Foundation Vaccine Modeling Initiative (VMI). The successful candidate will receive a competitive compensation package that includes a salary commensurate with experience and qualifications, an excellent benefits package exceeding the NIH standard levels, a travel stipend, and state-of-the-art IT equipment and support. We will support applicable immigration requirements for non-US citizens. This position will be for a one-year term, with the possibility of extension depending on performance and interest.

For more information: Dr. Wilbert van Panhuis, wav10@pitt.edu
University of Pittsburgh position listing: http://postdocjobs.hs.pitt.edu/ViewPost.aspx?q=757

Applications will be received until this position has been filled.
Expected start date in the Spring-Summer of 2016