

A postdoctoral position funded by the NSF-NIH-USDA-BBSRC Ecology and Evolution of Infectious Disease (EEID) Program is available with Dr. Matthew Ferrari (<http://www.ciddd.psu.edu/people/mjf283>) and Dr. Katriona Shea (<http://www.bio.psu.edu/People/Faculty/Shea/>) in the Center for Infectious Disease Dynamics (www.ciddd.psu.edu) and the Department of Biology at the Pennsylvania State University (www.bio.psu.edu).

The position involves the development and application of Adaptive Management (AM) to important diseases (including foot-and-mouth disease in livestock and measles in humans). AM, “management with a plan for learning about the system”, combines real-time model fitting, based on dynamic surveillance data, with stochastic optimization to select the best management action to optimize management outcomes conditional on the current support for competing models. This project will involve development and analysis of mechanistic epidemiological management models in order to assess intervention strategies using structured decision theory.

A Ph.D. in Quantitative Ecology, Population Biology, Applied Mathematics, Statistics or an equivalent area is required. Expertise in stochastic optimization, optimal control theory, statistical computing or related topics is highly desirable. Candidates should demonstrate a track record of publication; have strong organizational, written, and oral communication skills; and be able to work both independently and as part of a collaborative team. This project will engage directly with agency stakeholders; thus, an ideal candidate will have a demonstrated ability to effectively communicate quantitative analysis to a non-technical audience. This position is initially funded for one year, with possibility of a second year. For further information, please feel free to contact Dr Ferrari (mjf283@psu.edu; +1 814- 865-6080) or Dr. Shea (k-shea@psu.edu; +1 814-865-7910).

Interested applicants should submit a curriculum vitae, a 1-2 page statement of research interests that explicitly describes professional qualifications for this position, and contact information for three referees. Penn State requires all applicants to register and complete the application form at the Penn State employment website https://app2.ohr.psu.edu/Jobs/External/EVMS2_External/currentap1.cfm#54001. Review of applications will begin 1 November 2014, and continue until a suitable candidate is found. Employment will require successful completion of background check(s) in accordance with University policies.

CAMPUS SECURITY CRIME STATISTICS: For more about safety at Penn State, and to review the Annual Security Report which contains information about crime statistics and other safety and security matters, please go to <http://www.police.psu.edu/clery/>, which will also provide you with detail on how to request a hard copy of the Annual Security Report.

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