

Postdoctoral Research Associate

Department of Pathobiology

College of Veterinary Medicine

There is a Postdoctoral research opportunity available with the Department of Pathobiology, University of Illinois at Urbana-Champaign, located in Urbana, Illinois, USA. The Department of Pathobiology addresses complex problems in biomedical and infectious diseases, with emphasis placed on studies of microbiology, immunology, disease prevention, and epidemiology, with the goals of making healthy humans and animals, along with a healthy environment.

Within the Department of Pathobiology, the Zhang Laboratory studies the disease mechanism of enteric bacteria and develops vaccines against diarrheal disease, with a focus on enterotoxigenic *Escherichia coli*, *Shigella*, and cholera. The lab applies isogenic strains and animal models to determine the significance of potential virulence factors and identifies virulence determinants and then targets virulence determinants as antigens for the development of multivalent vaccines. The specific objectives for this project are to 1) optimize antigen dose, adjuvant, and formulation of a vaccine candidate against enterotoxigenic *Escherichia coli*, 2) further develop vaccine upstream and downstream processing and analytical assays, 3) develop protein-based combination vaccines against two or more groups of enteric bacteria, and 4) achieve and analyze data, present data at professional conferences, and prepare and submit manuscripts to peer-reviewed journals.

Guided by a mentor, postdocs are to 1) learn to use computation software and novel vaccinology platform to develop cross-protective multivalent vaccines, and 2) develop skills to use animal models to test vaccine candidate preclinical efficacy.

Postdocs are required to make progress reports and present research data at the laboratory meeting and the department seminar. They are expected to work with academic and industrial collaborators to progress research and development projects and assist supervision and training of graduate and undergraduate research projects.

A doctoral degree in vaccinology, immunology, microbiology, or a related field from a reputed university or institute is required; with advanced knowledge and skills in protein expression, purification, and characterization; animal handle, care, and immunization; host immunity measurement and characterization; and skills of basic computation and statistical analyses. Preferred with experience in vaccine research and development, particularly against enteric bacteria.

The participants will receive a stipend monthly commensurate with training and work experience. Fringe benefits including health insurance and a retirement package will be provided based on the university policy and guidelines. This full-time position will be renewed annually for up to five years, contingent upon the availability of funding

Please visit the Department of Pathobiology website (<https://vetmed.illinois.edu/about-the-college/pathobiology/>) for the research program information. If you have additional questions, please e-mail Dr. Weiping Zhang at wpzhang@illinois.edu for more information.

Application Procedures & Deadline Information

For consideration, create a candidate profile at jobs.illinois.edu and upload application materials, including a cover letter, curriculum vitae and the names and email contact information for at least three professional references. All requested information must be submitted prior to consideration. Applications must be received by 6:00 pm (CST) on May 19, 2023. Applications not submitted through <https://jobs.illinois.edu> will not be considered. For further information, contact Weiping Zhang at wpzhang@illinois.edu. For questions about the application process, contact Illinois Human Resources at 217-333-2137.

The University of Illinois System is an equal opportunity employer, including but not limited to disability and/or veteran status, and complies with all applicable state and federal employment mandates. Please visit Required Employment Notices and Posters to view our non-discrimination statement and find additional information about required background checks, sexual harassment/misconduct disclosures, COVID-19 vaccination requirement, and employment eligibility review through E-Verify.

Applicants with disabilities are encouraged to apply and may request a reasonable accommodation under the Americans with Disabilities Act (2008) to complete the application and/or interview process. Requests may be submitted through the reasonable accommodations portal, or by contacting the Accessibility & Accommodations Division of the Office for Access and Equity at 217-333-0885, or by emailing accessibility@illinois.edu.

Requisition ID: 1017302

Job Category: Postdoctoral Research Associate

Apply at: <https://jobs.illinois.edu>