

Department of Microbiology, Genetics, & Immunology Michigan State University

Research Associate

Position Summary

A Research Associate (Post-Doc) position is available in the laboratory of Dr. Zhiyong Xi in the Department of Microbiology, Genetics, & Immunology at Michigan State University. The position is available starting immediately with five years of funding guaranteed with a possibility of an extension based on progress and performance. The main project is to work on cutting-edge research to explore the potential of *Wolbachia* for malaria control by targeting the reproduction and *Plasmodium* transmission potential of *Anopheles* mosquito vector. The project will center around establishing *Wolbachia* transinfection in *Anopheles* and dissecting the *Wolbachia-Plasmodium-Anopheles* interactions (See here: [DOI: 10.1126/science.1236192](https://doi.org/10.1126/science.1236192)). This includes exploring the interactions between various *Wolbachia* strains and *Anopheles* under diverse genetic backgrounds and environmental conditions.

The applicant must have a PhD in the area of medical entomology, parasitology, microbiology/immunology/molecular biology or a related field and have a strong background in genetics. Strong quantitative and communication skills are required. The applicant is expected to design and conduct experiments independently and clearly document results for use in presentations, manuscripts and grants. Previous experience working in a BSL2 is desired but not required. Experience with developing *Wolbachia* for mosquito-borne disease control is preferred although not required.

This is a full-time, 12-month fixed-term position with reappointment contingent on satisfactory performance and available funding.

Equal Employment Opportunity Statement

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, citizenship, age, disability or protected veteran status.

Required Degree

Doctorate

Minimum Requirements

The candidate must have a Ph.D. or must have completed all requirements for a Ph.D. that is pending conferral in Medical Entomology, Parasitology, Microbiology, Immunology, Genetics, or related field is required.

Desired Qualifications

The successful applicant will have experience and background in mosquito embryonic microinjection for *Wolbachia* transinfection, mosquito vector competence for *Plasmodium* and/or arboviruses, mosquito genetics, *Wolbachia* biology, and/or insect symbiosis. Experience working in a BSL2 is strongly desired.

Required Application Materials

Please submit the following:

- cover letter,
- CV,
- names and contact information for three references.

Review of Applications Begins On

07/09/2024

Summary of Health Risks

Some duties in this position may include the following health risks:

- Exposure to human blood, serum, tissue and other body fluids; and materials covered under Universal Precautions
- Work with animals or unfixed animal tissue

Website

<https://mgi.natsci.msu.edu/>

Department Statement

The Department of Microbiology, Genetics, & Immunology at Michigan State University values diversity in our faculty, staff, and students. We will strive for a culture of equity and inclusion in our research, teaching, mentoring, outreach and other activities. To achieve our goals in research, training, education, and outreach, we need a diverse community to provide new perspectives and develop new approaches for generating and disseminating knowledge about the microbial world and the molecular genetic processes of all life on Earth.

To promote these goals, we are committed to increasing the diversity of the department's faculty, staff, and students to better reflect the populations of our state and our nation. We are dedicated to providing a safe and welcoming environment where all can be nurtured for sharing ideas, growing skills and advancing knowledge. We will strive for an environment that is welcoming and equitable, one that fosters inclusion and facilitates the participation of all individuals who can help advance our department's various missions.

MSU Statement

Michigan State University has been advancing the common good with uncommon will for more than 160 years. One of the top research universities in the world, MSU pushes the boundaries of discovery and

forges enduring partnerships to solve the most pressing global challenges while providing life-changing opportunities to a diverse and inclusive academic community through more than 200 programs of study in 17 degree-granting colleges.