

Postdoctoral Fellow Auburn University

Direct Link: https://www.AcademicKeys.com/r?job=233170
Downloaded On: May. 9, 2024 6:00am
Posted Mar. 20, 2024, set to expire Oct. 31, 2024

Job Title Postdoctoral Fellow

Department Pathobiology

Institution Auburn University

Auburn, Alabama

Date Posted Mar. 20, 2024

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Post-Doc

Academic Field(s) Biology - Neuroscience/Neurobiology

Biology - General

Job Website https://www.auemployment.com/postings/44193

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Job Description

Job Description Summary

The Gut Pathogens-Microbiome Laboratory (GPML) at Auburn University's Department of Pathobiology is currently offering a Post-doctoral Fellow position. GPML is focused on the pathogenesis of human and animal enteric diseases, including *C. difficile* infection, as well as the effects of gut dysbiosis-associated metabolites on the gut-brain axis, gut-liver axis, and gut-kidney axis. The laboratory places particular emphasis on significant diseases such as autism spectrum disorders, metabolic liver diseases, and renal injury. Additionally, GPML is engaged in exploring microbiota-based therapeutic strategies for various human and animal diseases. The chosen candidate will be afforded the chance to engage in innovative research projects that challenge and expand our current understanding of the gut microbiota's influence on other vital bodily systems. This research could lead to the development of novel therapeutics using advanced comparative microbiomics and machine



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learning tools. The individual in this position will be responsible for planning, managing, and executing both ongoing and future research projects. This includes analyzing research results, supervising and training graduate and undergraduate students, and working collaboratively with the principal investigator, Dr. Shaan Mooyottu, on publishing manuscripts, as well as preparing and submitting protocols, reports, and both independent and collaborative research proposals.

Minimum Qualifications

- A PhD in biomedical sciences/microbiology/animal sciences/neuroscience or a related field at the time of employment.
- Expertise and extensive experience in one of the following three areas at the time of employment:
- 1. Advanced cellular and molecular techniques for delineating pathways associated with degenerative, inflammatory, or toxic changes in various tissues, such as the intestine, liver, kidney, or brain. OR
- 2. Advanced neurobiology or neuropathology techniques, with expertise in tissue and cell-based molecular techniques on the mouse brain, and/or experience in rodent behavior experiments. OR
- 3. Expertise in host-microbe interactions, with experience in delineating microbiota-metabolite-host interactions.

Ideal candidates are expected to possess basic expertise in statistical analysis software, such as GraphPad Prism, as well as in image analysis, and basic biomedical molecular techniques, including Western Blot, cell culture, and PCR.

Desired Qualifications

A combination of at least three of the following:

- Knowledge of basic or advanced molecular techniques, including Western Blot, spatial genomics, single-cell transcriptomics, immunohistochemistry, and/or immunofluorescence, etc.
- Experience in planning and executing mouse experiments.
- Experience in experimental neuroscience or neurobiology, specifically with mouse brain tissue processing.
- Experience in conducting rodent behavioral trials.
- Expertise in genomic/metagenomic analysis.
- Experience assisting in surgical or medical procedures.
- Proficiency in bacterial gene editing using CRISPR-CAS9.



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- Anaerobic bacteriology

Special Instructions to Applicants

The successful candidate must meet eligibility requirements for work in the United States at the time the appointment is scheduled to begin and continue working legally for the term of employment.

"Auburn University is understanding of and sensitive to the family needs of faculty, including dual-career couples" http://www.auburn.edu/academic/provost/facultyjobs/

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

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