Research Technician
Tufts University

Job Title	Research Technician
Department	Molecular Biology-Microbiology
Institution	Tufts University Medford, Massachusetts
Date Posted	Apr. 4, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Biology - Molecular Biology - Microbiology Biology - General
Job Website	https://jobs.tufts.edu/jobs/20347?lang=en-us&iis=Job+Board&iisn=AcademicKeys
Apply By Email	
Job Description	

Overview

The faculty in MBM are united by a common interest in the biology of microbes (bacteria, fungi, viruses, and parasites) and the effects of microbes on human and animal hosts. The microbial pathogens program studies microorganisms that cause infectious diseases, with emphasis on rigorous analysis of these pathogens and the immune responses that restrict them. Program investigators direct detailed studies of pathogenic bacteria, viruses, fungi and eukaryotic parasites. Research topics include structural analysis of virus entry, viral evolution, viral oncogenes, intracellular bacterial pathogens, microorganisms that cause diarrhea and pneumonia, intracellular signaling, pathogen adhesion, genetic determinants involved in susceptibility to infection, vaccine development, and

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identification of novel antimicrobial agents.

What You'll Do

Under close supervision of the principal investigator, other lab members, and senior scientists in neighboring labs who are intimately familiar with the techniques required, the Research Technician may conduct a variety of experiments using a variety of skills, which may include culturing bacterial and mammalian cells, performing fixed-cell and live-cell microscopy, making mesoscale and high-throughput measurements, and using microfluidic devices, quantitative image analysis, MATLAB, R, and python programming, and machine learning. In these capacities, the Research Technician will also record test results and analyze data using statistics. Our data-driven modeling requires use and development of custom code. Therefore, the strongest candidates will have computer programming and quantitative analysis skills.

Essential Functions:

- Conduct routine experiments
  - follow and design appropriate protocols/procedures to achieve results and test specific hypotheses.
  - perform techniques such as cell culturing, preparing samples for live-cell microscopy, mesoscale analysis, flow cytometry, molecular biology procedures, and testing drug regimens.
- Record results and assist with data analysis: [Data analysis and mathematical modeling/machine learning:]
  - keep accurate records of experiments and results
  - perform data interpretation/summarization including writing custom code and models
  - communicate findings to PI
  - interact scientifically with lab mates
  - analyze data, interpret results, and assist lab members in writing materials for publication and presentation
  - Help with laboratory operations (as all lab members do), including (but not limited to) assisting other lab members, ordering supplies and noting inventory, lab organization, and coordinating equipment repair

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What We're Looking For

Basic Requirements:

- BS degree in science or engineering with familiarity and some experience in laboratory (bench) science

Preferred Qualifications:

- Under supervision of the Principal Investigator, other lab members, the Research Technician should have the following skills to conduct a variety of experiments. These may include:
  - Culturing bacterial and mammalian cells
  - Performing fixed-cell and live-cell microscopy
  - Making mesoscale and high-throughput measurements
  - Using microfluidic devices, quantitative image analysis, MATLAB and python programming, and machine learning
  - Recording test results and analyze data using statistics.
  - Using and development of custom code, for data-driven modeling
  - Consistent attention to detail and excellent organizational and communication skills are critical. Knowledge of MS Office products, statistical/quantitative analysis and computation is necessary.
  - Previous experience working with molecular biology and/or cell biology techniques are preferred.

This description is not intended to be all-inclusive. Employee may perform other duties as assigned to meet the ongoing needs of the organization.

Pay Range

Minimum $19.80, Midpoint $23.55, Maximum $27.30

Salary is based on related experience, expertise, and internal equity; generally, new hires can expect pay between the minimum and midpoint of the range.

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Contact Information

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

Contact

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