Harris Orthopaedics Laboratory
Massachusetts General Hospital
55 Fruit Street, GRJ 1131
Boston, Massachusetts 02114-2696
www.harrisortholab.org

Translational Research in Infection - Technician (Entry Level)

Harris Orthopaedics Laboratory

General Overview

The pioneering efforts of the Harris Orthopaedics Laboratory at the Massachusetts General Hospital, have positively impacted the quality of life of millions of patients through innovation since its inception in 1969. The mission of the laboratory is to improve patient outcomes through materials science and clinical research with an emphasis on orthopaedic applications.

Harris Orthopaedics Laboratory is focused on the development of polymeric and hybrid materials for applications in orthopaedics. We are seeking a highly motivated individual for an entry-level research position to support our translational infection research program in implantable biomaterial development, starting immediately or in June 2021. This position is ideal for new graduates interested in the medical application of basic research and is a great opportunity for those who want to gain some experience before continuing their education in graduate or medical school.

Responsibilities include, but are not limited to, the following activities:

Specific technical functions:

- Performing phenotype and genotype bacterial characterization of Gram (+), Gram (-) biofilms and polymicrobial cultures
- Antibacterial characterization in solution and on material surfaces
- Bacterial characterization of periprosthetic tissues and retrieved implants
- Determining the fractional inhibitory concentration of therapeutic compounds
- Preparation and characterization of bacteria cultures and tissues on-site and local off-site research facilities including susceptibility analysis and RT-PCR
- May include supporting preclinical in-vivo experiments in rodent orthopaedic models of joint replacement and long-bone fracture

General laboratory functions:

- Assembly, operation, maintaining operation protocols, scheduling management and some maintenance of assigned equipment
- Ordering supplies and keeping track of related inventory
- Maintaining clean equipment, glassware and laboratory space
- Working under the supervision of a post-doctoral fellow
- Working alongside other research technicians, MD students, PhD students and post-doctoral fellows

Administrative/reporting functions:

- Organizing and accurately maintaining written records of procedures and data
- Generating and compiling experimental information/results in graphs, charts, and reports.
- Preparing written and/or verbal reports for supervisor and/or senior research personnel.
- Collaborating with team members and supervisor(s) in developing research methodologies and research objectives
- Collaborating with team members and supervisor(s) in writing and editing material for publication; opportunity for authorship in publications

Skills/Abilities/Qualifications

- Must have BS
- Must have at least one non-course based laboratory research experience, such as a summer internship or research assistantship
- Coursework and/or laboratory experience with bacterial culture methods a plus
- Coursework and/or internship experience in biomaterials a plus
- Robust written and oral communication skills, attention to detail, and strong organizational skills are all expected. Independence, self-motivation, and a willingness to learn new skills are also vital for succeeding in this position
- Must have solid, practical skills in Microsoft Office applications. Demonstrated proficiency in Matlab is a plus

This position requires strong academic performance (minimum 3.2 GPA is preferred). The ideal candidate will also have had prior research experience. Preference will be given to a candidate planning to matriculate at a medical or graduate school in 2023 or later.

How to Apply

Please submit your resume, cover letter, and your unofficial transcript to Slav Lerner, vlerner@mgh.harvard.edu by January 31, 2021. We will start reviewing the applications as we receive them. Earlier applicants will receive priority.