

Research Technologist Position

The Shimamura Lab is currently seeking an experienced, enthusiastic, and motivated Research Technologist with strong scientific and organizational skills. Our laboratory is in the Division of Pediatric Hematology Oncology studies bone marrow failure and myelodysplastic syndromes. These genetic disorders are characterized by impaired blood cell production and leukemia predisposition. Research involves studying patient blood and marrow samples using genetics, biochemistry, and cell biology. Experience with induced pluripotent stem cells and hematopoiesis assays is desirable but not required. Research techniques include cell culture, plasmid preparation, cloning, qPCR, shRNA and CRISPR design, genomic DNA sequencing, DNA preps from primary patient samples, transfection of cultured cells, protein lysate preparation, western blotting, immunoprecipitation, immunofluorescence, cell survival assays, flow cytometry, methylcellulose colony assays, lentiviral vector production.

General Summary

Independently or with supervision performs a wide range of routine and specialized laboratory tests, specimen preparation and highly skilled experimental procedures for research studies and diagnosis of disease. Utilizes specialized laboratory equipment and analysis of the data generated by this equipment.

Principal Duties and Responsibilities

- Performs routine and highly specialized or unique laboratory experiments for specific research projects, using sophisticated and intricate research equipment and techniques.
- Performs and devises specialized experiments and research procedures, troubleshooting problems with own and other researchers' results.
- Provides input to the overall research design to suggest techniques, maximize samples or refine data by the use of specialized techniques.
- Evaluates research data and initiates alternative approaches to improve quality of the results.
- Calculates, graphs and compiles data obtained, maintaining records and logs of work performed; perform statistical analyses.
- Undertakes quality assurance of research techniques. Calibrates, troubleshoots and performs repair of maintenance equipment.
- Evaluates and recommends new equipment and supplies needed for specialized procedures.
- Assists other lab personnel with the use of specialized equipment and techniques within the lab.
- Trains and provides guidance to technicians, residents and researchers in specialized procedures, use of equipment and theoretical bases of unique tests.
- Monitors the sterilization of glassware, media and reagent making and other laboratory processes.

- Prepares articles and papers on specialized techniques.
- Stays abreast in safety procedures, storage and disposal of bio-hazardous, infectious, corrosive, radioactive and toxic substance, regulations in the lab to adhere to new Hospital and federal mandates.

Minimum Education and Experience

Work requires the knowledge of theories, principles, and concepts acquired through completion of a Bachelor's degree and prior experience conducting laboratory research projects in addition to standard lab classes.

Knowledge, Skills, and Abilities

- Work requires the analytical skills to resolve complex problems requiring the use of scientific, mathematical, or technical principles and in-depth, experience-based knowledge.
- Work requires the ability to communicate effectively both orally and in writing including assigning and distributing work, coaching, training and enforcing policies.

For consideration, please send your CV to Teresa.urena@childrens.harvard.edu