

# Sports Medicine Research Laboratory

## Detailed job description Research Technician

Under the direction of the Principal Investigator, monitors and coordinates the work of students and post-docs to ensure the quality of laboratory procedures. Performs a variety of routine and specialized laboratory tests, specimen preparations and experimental procedures.

### **Principal Duties and Responsibilities:**

(The statements below are intended to describe the essential duties of the person or persons assigned to this job. They are not intended as an exhaustive list of all job duties and responsibilities.)

- Coordinates the activities of students and fellows in the lab, advising them on techniques as needed. Is responsible for safety, biohazard handling and radiation monitoring for the laboratory. Monitors the sterilization of glassware, media and reagent making and other laboratory processes.
- Performs routine and highly specialized or unique laboratory tests for specific research projects, using sophisticated and intricate research equipment and techniques. Performs and devises specialized tests and research procedures, troubleshooting problems with own and other researchers' results.
- Provides input to the overall research design: develops protocol that maximize samples; improves the validity of assays; reduces the use of resources for assays; or refines data through the use of specialized techniques.
- Calculates, graphs and compiles data obtained in own studies, maintaining records of work performed, using computer to perform statistical and mathematical analyses for the Principal Investigator. 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.
- Trains, provides guidance to, and monitors students and post-docs in specialized procedures, use of equipment and theoretical bases of unique tests. Writes performance reviews with the consent of the Principle Investigator in accordance with Hospital policy.
- Prepares articles and papers on specialized research techniques, attending conferences and courses, consulting with other researchers and participating in professional activities to update knowledge of research and laboratory techniques. Reviews information about the state of the art. Implements new procedures and concepts in the research program.
- Analyzes and evaluates data (including statistical analysis) to recommend the course of research, and aid in publication and presentation of morphologic and molecular biology results.
  - Attends conferences and courses, consults with other researchers, and participates in other professional activities to maintain the level of continuing education that will provide information to supplement existing procedures.
- Ensures compliance with safety procedures for the handling, storage and disposal of flammable, corrosive, toxic and radioactive substances.

### **Minimum Knowledge and Skills required by the Job**

- Work requires the knowledge of theories, principles, and concepts typically acquired through completion of a Bachelor's degree in Biology, Chemistry or a closely related field and several years lab experience is preferred.
- Work requires the analytical skills to resolve highly complex problems requiring the application of clinical, scientific or technical principles, theories and concepts and in depth, cross functional experienced based knowledge.
- Work requires communication skills in order to effectively deal with conflicting views or issues and mediate fair solutions, and well developed writing skills.