position description

Date: July 2021

Title: Research Assistant 1

Department: Genetics and Genome Sciences

School: Medicine

Location: Biomedical Research Building 639

Supervisor Name and Title: Rui Sousa Neves, Research Scientist

POSITION OBJECTIVE

Working under moderate supervision, the Research Assistant 1 will perform research work in medical and related technical areas involving the use of lab/ research skills. The laboratory studies neural circuits in Drosophila using genetics, molecular biology, behavioral and microscopy techniques, research work in Drosophila aging and other projects designed by the principal investigator. The research work includes conducting experiments including but not limited to Drosophila genetic manipulation, behavioral and aging analysis bioinformatics and in situ hybridization.

ESSENTIAL FUNCTIONS

1. Perform experiments including Drosophila genetic manipulation, behavioral and aging analysis, bioinformatics, in situ hybridization, immunohistochemistry, tissue dissection, confocal microscopy and basic molecular biology. (45%)
2. Conduct genetics experiments, collect image data from confocal microscope and analyze results in ImageJ and GIS. Conduct behavioral experiments using video-analysis. (20%)
3. Order in situ RNA probes from web-based bioinformatics sites. Fluorescently label RNA probes using kits. (10%)
4. Accurately record results for a particular experiment and related series of experiments in lab notebook and also electronically. Maintain records of experiments. (10%)

NONESSENTIAL FUNCTIONS

1. Order laboratory supplies necessary for completion of experiments using an in-house ordering system and restock inventory as needed. Order reagents and lab supplies from websites when needed. (5%)
2. Maintain test equipment utilized in experiments to ensure that it is clean and fully functional. Report any equipment malfunction to principal investigator. (5%)
3. Prepare general lab solutions, sterilize glassware and maintain lab supplies and Drosophila stocks. (5%)
4. Perform other duties as assigned. (1%)

CONTACTS

Department: Daily to weekly contact with supervisor for the purpose of reporting results being obtained and issues related to lab maintenance and equipment.

University: Occasional contact with other departments that provide services, such as fly media, sequencing and imaging core facilities outside the biology department.

External: Limited contact with vendors to inquire about new products never tested in the lab before.

Students: Daily Contact with student employees.

SUPERVISORY RESPONSIBILITY

This position has no direct supervision of staff employees.

QUALIFICATIONS

Education/Experience: Bachelor's degree and 0 to 1 years of related experience or Associate's degree in an approved biotechnology program and 0 to 2 years of related experience.

REQUIRED SKILLS

1. Knowledge and understanding of commonly-used concepts, practices and procedures in a laboratory environment.
2. Ability to perform basic laboratory techniques.
3. Ability to rely on Instructions and pre-established guideline to perform the functions of the job.
4. Knowledge of computer software use (e.g. Image J, FIJI, Photoshop, BLAST, Excel, Word) preferable but not required at the time of hiring.
5. Effective oral and written communication skills.
6. Good interpersonal skills; ability to work and communicate with various individuals within and external to the university.
7. Good organization skills; ability to multi-task, prioritize and meet deadlines. Must demonstrate attention to detail and accuracy, time management and follow-through.
8. Ability to rely on and follow instructions and pre-established guidelines to perform the functions of the job.
9. Must demonstrate willingness to learn new techniques, procedures, processes and computer programs as needed.
10. Ability to meet consistent attendance.
11. Ability to interact with colleagues, supervisors and customers face to face.

WORKING CONDITIONS

Typical laboratory environment. May have exposure to hazards (formaldehyde). Personal protective equipment, including lab coat, gloves and goggles, will be provided to limit exposure to hazards. Exposure to noise from equipment. Frequent use of computers.