

position description

Date: October 2021

Title: Research Assistant 1

Department: Genetics and Genome Sciences

School: Medicine

Location: BRB

Supervisor Name and Title: Christopher D McFarland, PhD, Assistant Professor

POSITION OBJECTIVE

Working under moderate supervision, the Research Assistant 1 will perform experimental tasks within the "Cancer Evolution Lab" at Case Western Reserve University. Experiments will use quantitative DNA barcoding and multiplexed genome-engineering in mice to understand lung cancer progression and drug response. This position will be primarily responsible for collaboratively performing laboratory experiments at the bench, assisting laboratory staff and sharing laboratory maintenance responsibilities. The research assistant will be directly supervised by the principal investigator. This position will work with animals.

ESSENTIAL FUNCTIONS

1. Perform basic molecular and cellular biology techniques (e.g., PCR, DNA purification and library prep) and apply them to the lab's research projects. (30%)
2. Perform basic mouse husbandry tasks; this includes but is not limited to providing care for animals, inspecting animals regularly, maintaining ID/records of all animals, and keeping datasheets up-to-date and circulated appropriately. (30%)
3. Perform cell culture growth, transduction, and maintenance of cancer and epithelial cell lines. Conduct analysis of samples. (20%)
4. Accurately record results for a particular experiment or closely related series of experiments in electronic lab notebook. Maintain records of experiments. (8%)
5. Order laboratory supplies necessary for completion of experiments using an in-house ordering system and restock inventory as needed. (6%)
6. Maintain test equipment utilized in experiments to ensure that it is clean and fully functional. Report any equipment malfunction to principal investigator. (6%)

NONESSENTIAL FUNCTIONS

Perform other duties as assigned. (<1%)

CONTACTS

Department: Daily contact with research scientists, post-doctoral fellows and laboratory principal investigator to maintain workflow and discuss research.

University: Frequent contact with other departments and collaborator groups to share information.

External: Limited or no contact with vendors to exchange information.

Students: Daily contact with student employees and graduate students to maintain workflow.

SUPERVISORY RESPONSIBILITY

This position has no direct supervision of staff employees.

QUALIFICATIONS

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

REQUIRED SKILLS

1. Knowledge of commonly-used concepts, practices, and procedures within the field of molecular biology and animal husbandry.
2. Ability to rely on instructions and pre-established guidelines to perform the functions of the job.
3. Ability to learn and operate laboratory equipment.
4. Ability to meet consistent attendance.
5. Ability to positively interact with colleagues, supervisors, and collaborators face to face.
6. Must demonstrate compliance with Case Western Reserve University animal research and care (ARC) policies and procedures and compliance to regulations of the Animal Welfare Act, Public Health Service Policy, AAALAC guidelines and other applicable regulatory guidelines.
7. Must demonstrate compassion for animals within Case Western Reserve University facilities and dedication to the Animal Resource Center's mission. Must handle animals with care and respect at all times.
8. Previous experience working with animals preferred.
9. Professional and effective verbal and written communication skills.
10. Interpersonal skills: ability to effectively work with various individuals throughout the department, school, university and individuals external to the university.
11. Detail oriented and ability to multi-task and prioritize work in order to meet deadlines.
12. Ability to work in a team environment in order to achieve a goal or complete a task.

WORKING CONDITIONS

General laboratory environment. May have exposure to chemical, animal, and blood borne pathogen hazards. Mandatory laboratory safety training will be provided. Required personal protective equipment includes a standard lab coat, gloves and safety glasses when appropriate.

Case Western Reserve University's animal facilities are accredited by the Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) and is managed according to the "Guide for the Care and Use of Laboratory Animals" appropriate Federal Animal Welfare Regulations, and the Public Health Service "Policy on the Humane Care and Use of Laboratory Animals." This position, and all animal research personnel, are subject to internal compliance to School of Medicine Animal Resource Center Standard Operating Procedures and to compliance regulations of the Animal Welfare Act, Public Health Service Policy, AAALAC guidelines, the State of Ohio Veterinary Practice Act, Federal Drug Enforcement Administration regulatory guidelines, US Food and Drug Administration Center for Veterinary Medicine regulations and other applicable regulatory guidelines.