

position description

Date: November 2021

Title: Research Assistant 1

Department: Genetics and Genome Sciences

School: Medicine

Location: BRB709

Supervisor Name and Title: Craig Hodges, Associate Professor

POSITION OBJECTIVE

Working under moderate supervision, the Research Assistant 1 will perform research work and collect data in a biomedical research laboratory. The key responsibilities of this position are to assist in developing and characterizing mouse models for pediatric pulmonary diseases, maintain and care for these mouse strains on a daily basis and genotype the mice through PCR based techniques. The position will greatly support the scientific endeavors of the cystic fibrosis center which require mice and will ultimately assist in understanding the biological basis for cystic fibrosis which could lead to new therapeutic strategies. This position will work with animals.

ESSENTIAL FUNCTIONS

1. Maintain and manage a mouse colony, including breeding, weaning and tagging mice for identification and genotyping purposes. (50%)
2. Perform phenotypic characterization of mouse strains. This will involve observations each day with respect to overall health, weight, length, tooth color, amount eaten etc. (20%)
3. Perform genotyping of mice using PCR. This will involve taking a tiny piece of tissue, digesting it and using agarose gel based or fluorescence based PCR to determine the genetic makeup of the mouse. (6%)
4. Conduct analysis of samples. Run qRTPCR for expression or Westerns for protein. May involve imaging fluorescence on a microscope. (6%)
5. Record results and maintain records of experiments. Accurately document notes through an online notebook or group shared excel lists. (6%)
6. Maintain test equipment utilized in experiments, including regular maintenance of pipetman, PCR machines, refrigerators and freezers. (6%)
7. Order laboratory supplies necessary for completion of experiments using an in-house ordering system and restock inventory as needed. (6%)

NONESSENTIAL FUNCTIONS

Perform other duties as assigned. (<1%)

CONTACTS

Department: Daily contact with supervisor to discuss research. This position will meet daily with their supervisor to assist and update the mouse colony.

University: Occasional contact with other departments to share information. This position will interact with staff in other departments as needed for collaboration. This position will provide information about these mice to the staff.

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

Students: Regular contact with student employees for assistance with taking care of the mouse colony.

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. Has knowledge of commonly-used concepts, practices, and procedures within a particular field.
2. Relies on instructions and pre-established guidelines to perform the functions of the job.
3. Ability to operate laboratory equipment.
4. 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.
5. 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.
6. Must be able and willing to learn new techniques, procedures, processes, and computer gear to protect the health of the animals.
7. Must be able and willing to maintain a high standard of personal cleanliness and utilize protective gear to protect the health the animals.
8. Previous experience working with animals preferred.
9. Excellent oral and written communication skills and interpersonal skills; must demonstrate the ability to effectively and professionally communicate and work with various individuals from a broad spectrum of disciplines, technical and educational backgrounds within the department, school and university, and with individuals outside the university.

10. Good/Strong organization skills; ability to multi-task, prioritize and meet deadlines. Must demonstrate attention to detail and accuracy, time management skills, and follow through.
11. Willingness and ability to rely on and follow instructions and pre-established guidelines to perform the functions of the job.
12. Must demonstrate willingness to learn new techniques, procedures, processes, and computer programs as needed.

WORKING CONDITIONS

General laboratory environment. May have exposure to hazards. Mostly working with mice. May be required to lift up to 40 pounds at a time infrequently. May have repetitive motion with hands if doing genotyping.

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 SOM 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.