

position description

Date: March 2022

Title: Research Assistant 2, Cancer Research

Department: Genetics and Genome Sciences

School: Medicine

Location: WRB

Supervisor Name and Title: Zhenghe Wang, professor

POSITION OBJECTIVE

Working under general supervision, the Research Assistant 2 will plan and carry out cellular, molecular and animal research projects in accordance with general plans. The lab utilizes cellular and animal models for studying tumor progression, metastasis and drug treatment. Project will involve animal breeding, genotyping, general molecular biology technologies and tissue culture. This position will work with animals.

ESSENTIAL FUNCTIONS

1. Conduct animal experiments involving breeding mice of different genotypes together, clipping mouse tails, extract genomic DNA and performing PCR to genotype each allele. Monitor mice when tumors are induced. For some experiments, subcutaneous tumors will be established, mice will be treated with anti-cancer drugs and tumor sizes will be measured during the course of the drug treatment. (50%)
2. Assist research scientist and postdocs in the lab to conduct a series of experiments to supply scientific information as part of a larger project. (10%)
3. May assist in developing improved genotyping techniques and animal breeding procedures. Train new staff; direct the work of students. (6%)
4. Collect and analyze data for mouse genotype, tumor growth and body weight. Statistical analyses will be performed with the drug treatment related data. (10%)
5. Maintain general lab equipment facilities including tissue culture facility, -80°C and -20°C freezers, liquid nitrogen tanks and PCR facility. (6%)
6. Oversee chemical and biological reagent inventories, prepare commonly used lab solutions and place orders online. (18%)

NONESSENTIAL FUNCTIONS

Perform other duties as assigned. (<1%)

CONTACTS

Department: Daily contact with supervisor and lab members to discuss research and maintain workflow.



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University: Occasional contact with other departments to discuss research and maintain workflow.

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

Students: Contact with student employees to discuss research and maintain workflow.

SUPERVISORY RESPONSIBILITY

This position has no direct supervision of staff employees. Train new staff; direct the work of students.

QUALIFICATIONS

Education and Experience: Bachelor's degree and 1 to 3 years of related experience or Associate's degree in an approved biotechnology program and 2 to 4 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. Previous experience working with animals required.
8. Strong molecular biology skills (PCR, Western blots).
9. Tissue culture skills.
10. Strong organization skills and good habit of maintaining a clean lab working environment; demonstrate attention to detail and accuracy, time management skills and proven ability to successfully follow through on assigned projects.
11. Professional and effective verbal and written communication skills and good interpersonal skills with the ability to work and communicate with various individuals within and external to the University.
12. Ability to work effectively independently and collaboratively within a team (must be highly motivated, responsible, dependable and a self-starter).
13. Proficiency in Microsoft Office and GraphPad Prism is preferred. Experience using Adobe Photoshop and Illustrator is a plus.
14. Ability to meet consistent attendance.
15. Ability to interact with colleagues, supervisors and customers face to face.

WORKING CONDITIONS

General laboratory environment. The lab is an open floor plan with abundant bench space. Ample desk space with computers are also provided. The lab is equipped with one fume hood for storage of hazardous and non-hazardous materials. The cell culture room is equipped with incubators, culture hood and microscope. May be required to use personal protective equipment, including standard lab coat, gloves and safety glasses when appropriate. The candidate should expect frequent interactions with lab members from that lab and must be willing to collaborate.

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.