position description

Date:

Title: Research Assistant 2

Department:

School:

Location:

Supervisor Name and Title:

**Highlighted areas are required if the position is working with animals.

POSITION OBJECTIVE (Briefly describe objective of research project and position's role. Provide a brief summary of the scope, objective or role, and key responsibilities of the position. Describe how the position supports, contributes, or is linked to the project's or program's mission.)

Working under general supervision, plan and carry out research project in accordance with general plans. This position will work with animals.

Example: Working under general supervision, the Research Assistant 2 will plan and carry out experimental work to support and conduct testing for diagnostic mycology and in vitro susceptibility testing of outpatient and clinical trial samples. The research assistant will use in vitro and in vivo models of disease, as well as pharmaceutical development and research. In addition, this position will assist in quality control and quality assurance responsibilities of the laboratory setting. This position will work with animals

Example: Working under general supervision, the Research Assistant 2 will plan and carry out experimental work to investigate novel anti-cancer target and drug development pancreatic aimed at understanding pancreatic cancer biology. The research assistant will perform experiments ranging from in vitro cell culture to in vivo animal models, supporting laboratory members and laboratory maintenance. The research will help expand knowledge of the metabolic aspects of pancreatic cancer with long-term goals of translating into pancreatic patient treatments. This position will work with animals.

ESSENTIAL FUNCTIONS (Action statements to attaining job objective that would include the below benchmarks. Essential functions would include any function that represents a percentage of 6% or more)

1. Plan and carry out project in accordance with general plans.

Instruction: Describe the type of research work the position will be planning. Describe the techniques the position will be using to perform the research.

Example: Plan and carry out in vitro and in vivo animal experiments for various research projects Conduct cell culture of established and primary cell lines, cell proliferation, clonogenic survival, DNA/RNA extraction, immunoblot, PCR, plasmid cloning and purification, maintain laboratory reagents including buffers and medias, and measure weight and tumor size in control and experimental mice.

Example: Plan and carry out research involving cell culture of established and primary cell lines, cell proliferation, clonogenic survival, DNA/RNA extraction, immunoblot, PCR, plasmid cloning and

purification, maintain laboratory reagents including buffers and medias, and measure weight and tumor size in control and experimental mice.

2. Conduct series of experiments to supply scientific information as part of a larger project.

Instruction: Describe the type of experiments that could be performed.

Example: Conduct a series of experiments including in vitro cell culture (sub-culturing cancer cell lines, analyze cell proliferation patterns, growth rates, cytotoxicity screens, Westerns, PCR, flow cytometry, and perform other compatible assays).

Example: Conduct a series of experiments to supply scientific information as part of a larger project. Studies include but are not limited to culture of cell lines, isolation and propagation of primary cells, flow cytometry, immunofluorescence, ELISA, DNA and RNA isolation, PCR, transfections, generation of retroviral and lentiviral vectors as well as transduction of mammalian cells using these vectors, gene silencing, immunoblots and immunoprecipitation.

3. Collect data and analyze.

Instruction: Describe the type of data the position will be collecting and the methods by which analysis will be conducted.

Example: Collect and analyze data, prepare graphs, charts and slides from experimental data for purposes of reporting. Perform analysis which may include specific target quantitation using ELISA-based methods. Maintain a database tracking biospecimens.

Example: Collect and maintain tissue core (biorepository); this includes collection of mouse and human (under approved IRB protocol) specimens. Maintain records using electronic database and process the tissues as necessary. Analyze the metabolic cage measurements and reports.

4. May assist in developing improved techniques, projection methods or procedures.

Instruction: Describe the type of techniques, methods or procedures the position may assist in developing.

Example: Assist in developing improved techniques, projection methods or procedures in selection of cell lines, authentication, metabolic aspects on pancreatic cancer to entail optimization of established protocols.

Example: Assist in developing improved techniques or procedures for maintaining primary cell culture.

5. Oversee Inventory. Maintain certain equipment facilities.

Instruction: List any specific inventory the position is responsible for overseeing. Specify any particular experimental equipment the position is responsible for maintaining.

Example: Oversee inventory. Order reagents and other laboratory supplies. Maintain chemical/biological inventory in compliance with EHS. Assess new equipment that may be purchased by the Core.

Example: Oversee inventory of supplies necessary for daily laboratory work. Prepare solutions, set up reactions. Maintain laboratory equipment.

6. Train new staff; direct the work of students

Instruction: Describe if there are specific staff members/students the position will be directing or training and any particular areas of research the position will be training in.

Example: Train new staff regarding standard laboratory policies as well as basic biochemistry research techniques.

NONESSENTIAL FUNCTIONS (Marginal or infrequent functions. Nonessential functions would include any function that represents a percentage of effort of 5% or less)

Perform other duties as assigned.

CONTACTS (indicate frequency (daily, weekly, etc.); position contacted; frequency; and purpose of contact)

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

University: Occasional contact with other departments to share information and collaborate on projects.

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

Students: Occasional contact with student employees to explain policies and procedures.

SUPERVISORY RESPONSIBILITY

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

QUALIFICATIONS (List any additional certifications and/or licensing needed to be successful in this position)

Education/Experience: Bachelor's degree and 1 to 3 years of experience or Associate's degree in an approved biotechnology program and 2 to 4 years of experience required.

REQUIRED SKILLS (List those measurable or observable knowledge, skills, abilities, and/or behaviors that are required to succeed in performing the essential functions.)

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. Ability to meet consistent attendance.
5. Ability to interact with colleagues, supervisors, and customers face to face.

Additional examples:

6. *Must demonstrate compliance with 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 university facilities and dedication to the Animal*

Resource Center's mission. Must handle animals with care and respect at all times.

8. *Must be able and willing to learn new techniques, procedures, processes, and computer gear to protect the health of the animals.*
9. *Previous experience working with animals preferred.*
10. *Strong molecular biology skills (PCR, Western blots, Retroviral/Lentiviral constructs).*
11. *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.*
12. *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.*
13. *Ability to work effectively independently and collaboratively within a team (must be highly motivated, responsible, dependable and a self-starter).*
14. *Ability to work with sensitive information and maintain confidentiality.*
15. *Proficiency in Microsoft Office and GraphPad Prism is preferred. Experience using Adobe Photoshop, Illustrator, and FlowJo is a plus.*
16. *Must have the ability to maintain meticulous, complete, and easily retrievable laboratory data.*
17. *Must have the ability to willingly learn new techniques and procedures as needed, follow established protocols or laboratory procedures and request clarification if necessary.*

WORKING CONDITIONS (Identify the general working conditions Describe general conditions, exposure hazards, ergonomic concerns, personal protective equipment required, travel requirements and physical demands, which relate to the essential functions of the position. Hazards may include exposure to chemicals, commercial products, bloodborne pathogens, radioactive materials, x-ray, fumes, laser, infectious agents, etc.)

Example: General laboratory environment: The lab is an open floor plan with abundant bench space for animal handling and manipulations. Ample desk space with computers are also provided. The lab is equipped with one shared fume hood for storage of hazardous and non-hazardous materials. A common equipment room located adjacent to the lab are equipped with animal euthanization station. The cell culture room nearby is equipped with incubators, culture hood, and microscope. Access to a multi-color Flow Cytometer and a Seahorse Analyzer belonging in a neighboring lab. The candidate should expect frequent interactions with lab members from that lab and must be willing to collaborate. Major physical demands include transferring animals between the lab and the animal holding facility, maintaining the animal colonies, as well as weekly changes of mouse/rat cages.

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.