2. Work closely with the principal investigator

Instruction: Describe the type of research work the position will be performing and how the position will be working with the principal investigator.

Example: Work closely with the principal investigator to assist with animal surgery for reconstruction of muscle and bone defects, and transplant research projects. Create images of small and large animal surgery such as IVIS, CT, MRI, and general specimen photography.

Example: Work closely with the principal investigator in managing cancer genetics research, resolving questions and correcting scientific errors. Design and manage individual experiments, reporting these in a consistent fashion and in a timely manner, managing issues of the scientific method including positive and negative controls, reproducibility, sample size estimate valuation, trends and troubleshooting, and refining techniques into standard operating procedures in the laboratory.

3. Carry out complex research assignments of a non-routine nature

Instruction: Describe how the research is complex.

Example: Perform complex research which may include including administration of medications, chemical reagents, or biologic agents, handling live, tissues, and animals per IACUC protocols and laboratory methodology. Perform cell culture, tissues harvest and acquisition, DNA/RNA/protein extraction.

Example: Carry out complex research assignments of non-routine nature. Perform In vivo murine techniques. Specific experimental studies will require the ability to conduct bone marrow transplantation in mice, to isolate bone marrow stem cells from mice, to analyze bone marrow stem cells using FACS based methodology, and to conduct parallel studies involving isolation of human bone marrow stem cells, and to perform xeno-transplantation of human hematopoietic stem cells into immune deficient mice. Perform In vitro techniques including flow cytometry, PCR, cell culture, western blot, cell growth, etc.

4. Devise new protocols and techniques for research projects involving high degree of skill and training.

Instruction: Describe the types of protocols and techniques the position may be devising.

Example: Devise new protocols and techniques for research projects involving of cell growth and death evaluations

Example: Devise new protocols and techniques for research projects involving a high degree of skill and training. These include characterizing the therapeutic benefit of specific inhibitors of 15-PGDH on bone marrow transplantation efficacy, and the chemoprotective effect of these inhibitors on marrow, GI, and other adult stem cell populations.

5. Evaluate adequacy of techniques; study and test new procedures and analyzes data.

Instruction: Describe the type of techniques, methods or procedures.

6. May supervise students and technicians

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.

7. May co-author research projects.

Instruction: Describe the activities the position will be responsible for regarding co-authoring research projects.

Example: Participate in manuscript and grant writing, co-author research projects and provide data to the principal investigator for sponsor progress reports, manuscripts, grant and pilot applications.

Example: Co-author manuscripts and abstracts regarding manufacturing techniques and results related to clinical trials.

8. May monitor budget.

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.

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

Example: General laboratory environment. The employee will be exposed to blood-borne pathogens, chemicals, and radiation. Employee will need to wear appropriate protective equipment such as gloves, coat, and eyewear. Working conditions will require working at the bench in a molecular genetics/ biology laboratory, working with mice and other animal models in the laboratory and in the animal facility, and when needed working outside standard working days or hours as required by the needs of a given experiment.

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 AnimalsŽ appropriate Federal Animal Welfare Regulations, and the Public Health Service •Policy on the Humane Care and Use of Laboratory