

LOYOLA SCIENCE CENTER ANIMAL FACILITY (LSC080) PROCEDURES

Emergency Contact Information:

Dr. Gary Kwiecinski, Animal Facilities Director.....(570) 941-6387
Dr. Robbie Noto, Veterinarian.....(570) 483-1930
Dr. Vince Marshall, Animal Facilities Manager.....(570) 941-5439
Public Safety.....(570) 941-7888

Three Essential Rules:

- **The outside door of the facility MUST remain locked at all times.**
- **You should never enter or open the door of any animal holding room other than the one(s) containing your animals.**
- **Only PIs are allowed to bring “guests” into facility. Designees who bring guests must have the PI accompany them.**

Other Regulations

1) LSC Animal Facility Usage:

Only animals being used in projects approved in writing by the Institutional Animal Care and Use Committee (IACUC) may be maintained in this facility. All maintenance and research/teaching operations, and the number of animals, must conform to the approved IACUC protocol for the project. All surgery must be performed in the Animal Surgery and Surgery Preparation Rooms (rooms 080O and 080R, respectively). All students must be certified to work independently in the Animal Facility (http://matrix.scranton.edu/academics/provost/research/documents/Training_Cert_Form_Student_RA.doc) and all investigators must demonstrate competency in techniques (). Forms for animal care and use protocols, student training certificates, etc. can be found at <http://matrix.scranton.edu/academics/provost/research/sub%20pages/IACUC.shtml>.

2) Labeling:

- a) **Rooms** - Every room that contains animals MUST HAVE a completed, up-to-date door card that identifies the principal investigator (name, office, student workers, and phone numbers) the IACUC protocol number, the species/variety of animal, and general conditions of maintenance, feeding, photoperiod (indicate time on and time off, *e.g.*, 0800 hour on/2000 hour off), and treatment(s). The door card should also indicate whether care and maintenance is being handled by the PI/student(s) or by the Animal Facilities Manager, Dr. Vince Marshall.
- b) **Cages** - Every cage or container with animals MUST HAVE a complete, up-to-date cage card. The card should show, at a minimum, the IACUC Protocol #, the species/variety of animal(s), the sex(es) of the animal(s), and the name of the principal investigator and student(s) using the animal(s). In addition, the cage card must contain a record of any treatments that the animal has received involving the feeding or injection of foreign substances, with the date(s) and time(s) of treatment indicated.

3) Daily Log Book:

All animals must be observed daily by the PI (or designee) and some standard observations are to be recorded into a daily log book. Adherence to your moral obligation of daily care is essential. In order to standardize recording of necessary animal information, The IACUC has prepared a form for the daily logging of animal observations. These forms are to be kept in a loose-leaf binder in the animal room for each protocol. At the end of each month, you will need to send a copy of the log page to the Office of Research and Sponsored Programs (ORSP) for your protocol file. Use of this form is mandatory. This log book is to be maintained even though the user has his/her own lab notebook.

4) Special Considerations for Genetically Modified Animals

The investigator should consider any adverse clinical effects that might result from the genetic manipulation, understanding that adverse effects cannot always be anticipated. Close surveillance of genetically altered animals is critical. When the strain is developed at the University of Scranton, this surveillance should include necropsy of some representative animals. The development of genetically modified animals requires consultation with, and approval by, the University’s Institutional Biosafety Committee (IBC). The Chair of the IBC is Dr. Kathleen Dwyer, who can be reached at (570) 941-6386. The results of surveillance should be shared among the investigators, animal care personnel, and the IACUC. It is the investigator's responsibility to monitor these animals and communicate with the veterinary staff and the IACUC. Appropriate containment of these animals must be assured to avoid unintended sexual contact with other animals or possible transfer of either altered genetic material or viral vectors to human personnel or other animals.

5) Animal Restraint

Restraint devices should be suitable in size, design, and operation to minimize discomfort, pain, distress, and the potential for injury to the animal and the research staff. Animals that do not adapt to necessary restraint systems should be removed from the study. When

restraint devices are used, they should be specifically designed to accomplish research goals that are impossible or impractical to accomplish by other means or to prevent injury to animals or personnel. The following are important guidelines for restraint: 1) Restraint devices should not be considered a normal method of housing, and must be justified in the animal use protocol. 2) Restraint devices should not be used simply as a convenience in handling or managing animals. 3) Alternatives to physical restraint should be considered. 4) The period of restraint should be the minimum required to accomplish the research objectives. 5) Animals to be placed in restraint devices should be given training (with positive reinforcement) to adapt to the equipment and personnel. 6) Animals that fail to adapt should be removed from the study. 7) Provision should be made for observation of the animal at appropriate intervals, as determined by the IACUC.

6) Maintenance:

If maintenance is being done by the individual PI or a student, both water and food must be checked daily and provided so as to maintain the animal's free access to food and water or according to the approved IACUC protocol for feeding regime at all times. Animals should never be allowed to "dry-out" over weekends or school breaks. Food must be dated and stored in a container with a closed lid at all times. Food is stored not in the same room with the animals, instead in a room designated for storage only. Bedding must be removed and replaced with fresh material twice per week. Soiled bedding can be disposed of in a plastic garbage bag, which should then be sealed and removed to the outside dumpster the same day (see part 5 below). All sharps and glass are placed in their respective disposal or storage site. There should be no mess and it is the PI's responsibility to ensure that the facilities are maintained in the cleanest possible manor. The floor should be swept after bedding changes. Dirty cages must be washed in the cage washer. All dirty glassware should be placed on the drain board of the sink. Leave empty cages and tops stacked neatly under the drain board of the sink in the cage-washing room. Facility personnel will wash dirty cages except at times when he is absent for prolonged periods, in which event, you will be notified. **During facility personnel's absence, the PI will be responsible for all aspects of animal care and maintenance, including cage washing.**

7) Dead Animals :

Any dead animals or animal tissues must be placed in double 3 Mil plastic bags tied securely and labeled according to their contents. Labeled bags containing dead animals should be placed immediately in the large chest-freezer located in the Animal Facility. The freezer is locked – Dr. Marshall, Chemistry Stockroom (070J), and Loyola Hall Maintenance Supervisor all have keys. **Incident reports** are to be filed with your PI and the Facility Director immediately after an incident. Incidents include unexpected death of animals, injury to an investigator by an animal (bite, scratch, etc.), or unusual events in the facility.

IMPORTANT: Any animals that die from unknown causes or as a result of the experimental treatment with a foreign chemical are defined as INFECTIOUS WASTE. The animal and all of its bedding must be discarded in double plastic bags, labeled as to the contents AND the cause of death, and placed in the freezer. If dead animals of another principal investigator (PI) are discovered, please contact that PI, Dr. Marshall or Dr. Kwiecinski immediately.

8) Temperature and Relative Humidity:

Three separate temperature/relative humidity (T/RH) regimes are maintained in the facility. The Animal Surgery and Preparation Rooms (rooms 080O and 080R, respectively) have their own regime with controls. There are 6 holding rooms (080D, 080G, 080I, 080J, 080K, and 080P) are all on one T/RH regime. T/RH regimes are maintained at levels to accommodate current investigators. DO NOT change any temperature or relative humidity settings without first consulting the other PIs or the Animal Facility Director, Dr. Gary Kwiecinski.

9) Light-Dark Cycles :

Each animal holding room is set on a photoperiod required by a current investigator. All controls are contained in closet 080O. If you need to adjust the photoperiod in your room, instructions are posted above the light control in each room. Check with the Animal Facility Director if you need further instructions. NEVER change the photoperiod in someone else's room. Light-dark cycles are to be indicated by time of day on and time of day off.

10) Safety and Chemical Hygiene:

See http://matrix.scranton.edu/academics/provost/research/PowerPoint/OHS_presentation_web.ppsx for summary.

Proper attire is required at all times. No sandals, shorts, etc. (minimum amount of exposed skin is best). Lab coats and other appropriate protective clothing and apparel as necessary should be worn. Gloves should be worn, removed and disposed of before leaving the facility. Lab coats should be "facility-dedicated", placed in lockers when not in use, and not worn outside the facility. The University of Scranton Policy on Chemical Hazard Communication must be followed at all times. A copy of this policy is on file in the Animal Facility in the Yellow Binder with information on hazardous materials (SDS sheets). All users must be familiar with The University of Scranton Chemical Hygiene Plan and copies for reference can found in the Chemistry Stockroom and in the office of Michael Baltrusaitis, Cocciardi and Associates, located in Public Safety. Three important components of the Chemical Hygiene Plan with respect to the animal facilities are:

- a) Any chemicals brought into the animal facility must have an updated SDS sheet on file in the animal facility before that

- chemical is brought into the facility.
- b) Chemicals (including solvents and anesthetics) or radioisotopes are **not** to be stored in the animal facility without the written permission of the IACUC and the Facility Director.
 - c) All secondary containers of hazardous materials must have legible labels that include the name of the chemical, the hazard rating, and appropriate precautions.
 - d) All containers (including water) must have labels.

Any **accident** must be reported immediately to Public Safety (X7888) and an accident report filed with the PI and Facility Director.

11) Surgery and Post-Procedural Care

a) Preparation of Instruments and Supplies. Surgical instruments and supplies must be sterilized before they are used for survival surgery. Durable instruments and supplies may be autoclaved. This an extremely reliable and cost-effective method for sterilization. The disadvantage is the time that it takes to perform (from 15 minutes to 1 hour). Normally a wrapped "pack" of instruments is prepared and is opened the day of surgery. Packs may be stored if they are kept away from moisture *A preparation date should be put on each prepared pack and packs should not be used if they are more than six months old..*

b) Post-procedural Monitoring and Care. 1) Provide analgesia as described in the Guide for the Care and Use of Laboratory Animals: Eighth Edition (2011; **"Guide"**). 2) Provide nursing support which may include a quiet, darkened recovery or resting place, timely wound and bandage maintenance, increased ambient warmth, a soft resting surface, rehydration with oral or parenteral fluids, and a return to normal feeding through the use of highly palatable foods or treats. 3) Consider the administration of antibiotics to prevent post-procedural infections. 4) Monitor incisions for swelling, exudate, pain or dehiscence Monitor catheters & devices. 5) Monitor for procedure-related complications such as organ failure, thrombosis, and ischemia.

12) Facility Security:

The hallway door to the Animal Facility (LSC G080) must remain closed and locked at all times. Current investigators who are maintaining animals in the facility will have Royalcard access. Interior rooms are to be locked, and doors of animal holding rooms should be kept closed as much as possible to maintain T/RH regimes.

13) Reporting:

- a) **Accidents** – Any **accident** (human-related/chemical) must be reported immediately to Safety (X7888) and an accident report filed with the PI and Facility Director.
- b) **Incidents** – **Incident reports** (animal-related) are to be filed with your PI and the Facility Director immediately after an incident. Incidents include unexpected death of animals, injury to an investigator by an animal (bite, scratch, etc.), or unusual events in the facility. **Injured Animals** must be quarantined and a record maintained to demonstrate their return to good health before being placed back into a research project (<http://matrix.scranton.edu/academics/provost/research/documents/QUARANTINED%20ANIMAL%20RECORD.doc>).

14) Infringements:

Any infringement of these regulations may result in a citation by the Animal Facility Director or any member of the IACUC. Any citation issued to a single investigator could result in an investigation by the IACUC with possible suspension of animal-use privileges.

15) Further Information and Details:

Anyone needing more information should consult the P.H.S. **"Guide"** currently located in the Animal Facility or contact the Facility Director.