## Comparative Medicine



Provide general facility and program orientation so that protocol-specific, and/or species specific training needs or services can be identified, ensured and/or arranged.

http://www.usf.edu/research-innovation/comparative-medicine/



#### **IACUC Certification of Personnel**

- Personnel who work with animals must be certified by the IACUC as having adequate knowledge and experience to perform their duties.
- Four (4) documents are used to document your knowledge and experience and are uploaded to your ARC personnel profile.
- Additional documents are uploaded to your ARC profile if you:
  - Are planning to use rodents, and/or
  - Are planning to conduct aseptic surgery, and/or
  - Are planning to use immunodeficient mouse strains
  - Are planning use of physical methods of euthanasia without anesthesia
- Protocol and species-specific technical assistance and training are always available by contacting the facility supervisor.



#### IACUC Certification of Personnel

- ARC registration is completed at <a href="https://ARC.research.usf.edu/prod/">https://ARC.research.usf.edu/prod/</a>
- Questions regarding ARC = help desk at 974-2880 and <u>RSCH-arc@usf.edu</u>
- A minimum of Four (4) Documents, but as many as Eight (8) Documents depending on research interests (discussed in subsequent slides) are Uploaded to your ARC Personnel Profile
  - 1. Health and Risk Assessment reviewed annually
  - 2. FacilitBDC 0 0.6 0.6 r-3 (at)6TCIDu2.ume



#### **IACUC Certification of Personnel**

Upload additional documentation to your ARC personnel profile (i.e., certificate(s) of training arranged by <a href="mailto:compmed@usf.edu">compmed@usf.edu</a>), if you have/are:

- 5. Planning to use rodents = "Basic Rodent Use Biomethodology"
- 6. Planning survival surgery = "Aseptic Surgical Technique"
- 7. Planning use of immunodeficient strains = "Use of Immunodeficient Mice"
- 8. Planning use of physical methods of euthanasia without benefit of anesthesia = "Physical Methods of Euthanasia Without Anesthesia"

Protocol & species-specific technical assistance and training are always available by contacting the facility supervisor.



#### Occupational Health & Safety

#### **Health & Safety in the Care and Use of Animals**

Occupational health & safety principles require a risk assessment so that personnel know the hazards associated with their work, understand how these hazards are controlled, utilize safe practices, and use protective supplies and equipment.

#### In general:

- 1. Human allergens are produced by furred animals (e.g., including 2μ-globulins in urine of rodents, and in saliva and dander of cats), which are airborne and penetrate lower airways, resulting in allergic symptoms in at risk personnel (e.g., respiratory symptoms, rash, hives, or anaphylaxis).
- 2. Tetanus im(m)2.9 -0.6 (b)-T.04 -0 0 2n/6 (u)-0.6 (t)-5 (i)-1o.2 (n)-0.69tstutu shneldobe curreat, sinc puctarov



## **Documentation of Training**



## Documentation of Experience Using Animals

Document your experience working with animals in your ARC Personnel Profile:

- 1. Personnel with a history of work with a species, documented by peer-reviewed research involving the species, upload their curriculum vitae to ARC to document their experience.
- 2. Personnel, other than the PI, planning to use rodents must upload a certificate of completion of handson "In-Person" training in "Basic Rodent Biomethodology" scheduled by <a href="mailto:compmed@usf.edu">compmed@usf.edu</a>
  - a. Identification (e.g., tail tattoo, ear tag or punch), cage card with protocol #
  - b. Behavior, health assessments, clinical end points (e.g., hunched, matted, inactive, isolated)
  - c. Handling & restraint
  - d. Breeding, weaning, sexing progeny
  - e. Substance administration (i.e., subcutaneous (SC) & intraperitoneal (IP) injections, oral (PO) gavage)
  - f. Blood collection (i.e., submandibular, saphenous, cardiac) methods & supplies
  - g. Euthanasia (e.g., inhalation of carbon dioxide followed by a physical method)

http://www.research.usf.edu/cm/subpages/technical-training-resources.asp

Protocol & species-specific technical assistance and training are always available by contacting the facility supervisor.



#### Documentation of Aseptic Surgery Training

Personnel intending to contribute to survival surgical procedures must upload to ARC:

- 1. An AALAS certificate of completion of the module entitled "Aseptic Technique in Rodent Survival Surgical Procedures"
- 2. A certificate of "In-Person" training in such procedures provided by <a href="mailto:compmed@usf.edu">compmed@usf.edu</a>
  - a. Asepsis
  - b. Gentle tissue handling
  - c. Minimal dissection of tissue
  - d. Appropriate use of instruments
  - e. EffectLbl 26y ts



## Documentation of Immune Deficient Strain Use Training



## Documentation of Physical Methods of Euthanasia Training

Personnel intending to use physical methods of euthanasia without benefit of anesthesia (e.g., cervical dislocation, decapitation) must upload to ARC a certificate of completion of training entitled "Physical Methods of Euthanasia Without Anesthesia" arranged by contacting <a href="mailto:compmed@usf.edu">compmed@usf.edu</a>

http://www.usf.edu/research-innovation/comparative-medicine/technical-training-resources.aspx

Protocol & species-specific technical assistance and training are always available by contacting the facility supervisor.



#### Animals Orders, Supply & Equipment Requests

1. Animal order forms are submitted to <a href="mailto:animals-red">animalorders@usf.edu</a> by Thursdays at 11am for animals to arrive the following week from an approved vendor, either the Jackson Laboratories, Charles River Laboratories, Envigo, or Taconic

http://www.usf.edu/research-innovation/comparative-medicine/purchasing-per-diems.aspx
Animal acclimation for 7 days is recommended before animal use

2. Requesting controlled substances for use in research involving animals (e.g., anesthetics, analgesics) is made via institutional DEA registrations (i.e., Schedule I & Schedule II-V) by first registering the Principal Investigator using a "Certification of Research Personnel Using Controlled Substances" form submitted to compmed@usf.edu

http://www.usf.edu/research-innovation/comparative-m 64.2nd (i)-9.2-5.3 (t)-5 (p)-8.6 (ar)iecs45.65 0 I252 .4 (U)3 (s).1 (us)(i)-1.2 (n)-42.6 (i)8ea I osyattef(r)-1.3



#### Services, Equipment, Room Reservations

Per diems and technical assistance rates are viewable at:



#### Reporting Animal Welfare Concerns

Reporting concerns, deficiencies, or observations made regarding the adequacy or appropriateness of the facilities, program, principles, or procedures contributes to the oversight, development, and improvement of the program for animal care and use and contributes to the resolution of the concern or deficiency.

Deficiencies in animal care, use, recordkeeping, or treatment, and adverse events in animal care or use can be reported to Comparative Medicine veterinarians (745-4361,745-5923, 974-3673, 974-5092), or administrative staff (974-9842, 947-9876), or to the IACUC c/o Research Integrity & Compliance (974-0954, 974-5110, 974-7106), or directly to the IACUC Chairperson (974-1547), or IACUC Vice Chairperson (745-1540), or to the Institutional Official of the Animal Care and Use Program, (974-5570).

This reporting-feedback mechanism of observations made regarding the practices of animal care and use within these facilities, contributes an important oversight, assists in the continuous development of the animal program, and includes a mechanism for anonymity viewable at ethics point: <a href="https://secure.ethicspoint.com/domain/en/report\_custom.asp?clientid=14773">https://secure.ethicspoint.com/domain/en/report\_custom.asp?clientid=14773</a>



#### Prior to Entering the Facility (Don PPE)

Successful research outcomes involving animals require appropriate handling and use techniques that guard against infections that invalidate studies. Even subclinical infectious exposures can invalidate research data by altering normative biological responses.

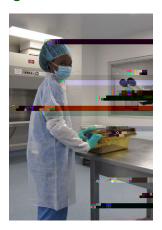


#### Prior to entering Common procedural areas

When working in common procedural areas

- a. In addition to the disposable gown and shoe covers donned upon entrance to the facility or when handling animals or caging, a bouffant and surgical mask that covers the nose are required to enter a common procedural area.
- b. Upon entering the procedural area push your thumb through the sleeve of the gown and put on a pair of gloves ensuring the cuffs overlap the gown, and don Tyvek sleeves.
- c. If working with immunodeficient mice put on an additional pair of gloves ensuring gloves overlap sleeves and no skin is exposed.
- d. Gloved hands are then disinfected by saturate spraying with Oxivir тв





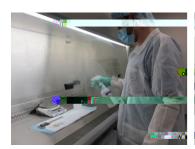


#### Prior to Handling Animals (PPE + Surface Decontamination)

Disposable gloves and Tyvek sleeves are required and decontaminated by saturate spraying with OxivirTb before handling animals.



Before animal use, decontaminate your gloves, Tyvek sleeves, and the surfaces of your work area, portable equipment, and the exterior of the microisolator in advance of animal use by saturate spraying with OxivirTB. A bouffant and mask are required.









Microisolators should be opened under a class 2A2 biological safety cabinet in isolation or containment, and otherwise within a transfer station.



#### Animal Medical Recordkeeping

Adequate animal care includes adequate medical recordkeeping.

Researchers serve as the primary attending clinicians of animals housed on their behalf. A veterinarian is always available to assist.

As such, researchers are responsible for maintaining animal medical records with entries made in sufficient detail and at intervals specified in IACUC Principles XIX.1-



# Use Characterized Biologics, In Date Sterile Preparations, USP Grade Pharmaceuticals, & Decontaminated All Surfaces

- Biologics (e.g., tumor-derived cell lines), especially those originally derived from, or serially passaged-through rodents, have the potential to surreptitiously transmit rodent pathogenic agents.
- Documentation of biologics as pathogen-free is accomplished by providing an aliquot (e.g., cell line) to the facility supervisor for PCR testing.
- In date USP grade pharmaceuticals must be used whenever available.
- Sterile multi-dose preparations (e.g., intravenous fluids, drug dilutions) must be dated when opened/prepared and are considered expired 28 days later.

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## Animal Health Surveillance(Flags)

- If an animal health concern is observed, staff flag the primary enclosure with a red cage card identifying the animal, the concern, and the date the concern was first noticed, and record the concern on the housing room's Progress Notes form.
- Rodent microisolator card colors are used as flags to indicate
- Red = Health concern (delineating treatment or monitoring plan);
- Neon Orange = Approaching or at clinical endpoint;
- Neon Pink = Research related special instructions (i.e., special diets, special water, DMSOr ai4 (t.0052g-



## Husbandry, Relocation, Reassignment, & Exportation

- Animal care staff change individually ventilated cages (IVC) every other week, water bottles on IVC weekly, and static cages twice weekly. Housing and use rooms are vaporized hydrogen peroxide (VHP) decontaminated every 6 months.
- Weaning by care staff occurs when rodents are between 18-21 days of age. All CM or PI weaned animals must be weaned into social housing groups of the same gender. If there is only one weanling of the opposite sex in a litter please write on the cage card "only male in weaned litter" for single males or "only female in litter" for single females.
- Movement of animals to other housing rooms or facilities is requested in writing using a "Request to Relocate &/or Reassign Research Animals" form and accomplished by care staff; forms are viewable at <a href="http://www.usf.edu/research-innovation/comparative-medicine/shipping-relocating.aspx">http://www.usf.edu/research-innovation/comparative-medicine/shipping-relocating.aspx</a>
- Animals are eligible for transfer from one IACUC-





#### Other Helpful Information

- Care staff are present in facilities between 7:00 am 3:30 pm Monday Friday
- Facility access cards should not be shared or used to grant others access
- No eating or drinking in the animal facility
- Facility tour will also demonstrate: (1) evacuation routes, (2) location of fire extinguishers, (3) location of emergency eye wash & safety shower, (4) SDS location, (5) facility access points (after hour/weekend access for College of Medicine facility)

