

## **Chapter 7 Use of Animals in Research and Animal Cell Culture**

The use of animals in research requires compliance with the Animal Welfare Act and any state or local regulations covering the care or use of animals. Facilities in which laboratory animals are used should be physically separate from clinical laboratories and facilities that provide patient care.

Vertebrate animal biosafety level criteria must be adhered to where appropriate. All work with animals involving the use of rDNA and/or infectious or transmissible agents must be submitted to the IBC for review and approval in addition to approval from the Institutional Animal Care and Use Committee (IACUC). The IBC may require the laboratory and the IACUC to work out specific details (e.g., animal handling, transportation, housing, waste disposal, etc.) prior to initiation of experiments requiring Animal Biosafety Level 2 or Animal Biosafety Level 3 containment. The only approved Animal Biosafety Level 3 facility is located in Building 101. Investigators who are uncertain of how to categorize agents should see the List of Infectious Agents in Appendix 2.

Contact IACUC (621-9305) to obtain more comprehensive documents on IACUC policy.

### **Biohazards and Research Animals**

(Campus and Medical Center)

#### **Containment**

1. All laboratory personnel and animal care handlers must be fully informed of the biosafety practices necessary to prevent an accidental exposure to an infected animal. It is the Principal Investigator's responsibility to inform personnel associated with the research of the potential risks and appropriate biosafety practices.
2. Specific procedures for handling animals containing recombinant DNA or microbial pathogens must be in writing and be read by all personnel handling the animals.
3. At a minimum, personnel handling animals containing recombinant DNA or a microbial pathogens must wear a laboratory coat, gloves, and shoe covers.
4. All personnel must wash their hands before leaving the room or entering another animal care room.

#### **Disposal**

1. At the conclusion of the experiment, animals containing recombinant DNA or microbial pathogens must be euthanized, placed in red biohazard bags and destroyed. Depending on the infectious agent, animals may be incinerated or appropriately decontaminated. Animals should be double bagged and the

outside of the outer most bag should be sprayed with a 10% bleach solution.

2. Animals must be disposed of as biohazardous waste through UofA Risk Management.

## **Animal Cell Lines**

Because of the potential exposure to zoonotic infections, all primary animal cell lines must be handled at Biosafety Level 2 (including a Class II Biosafety Cabinet). Established cell lines that are verified to be free of viruses should also be handled at Biosafety Level 2 and under go periodic testing to ensure that they are virus free. It is not acceptable to handle any animal cell lines (primary or established) in a clean bench or horizontal laminar flow hood. Refer to Chapter 16 for more information on the types of biosafety cabinets.