Euthanasia

UAB requires two methods of euthanasia listed on your approved IACUC Protocol. If you have not been trained to euthanize rodents, contact one of the UAB ARP Veterinary Staff before attempting the procedure.

Primary Methods

Following are examples of acceptable primary methods of euthanasia with IACUC approval:

1. Inhalants (e.g., CO₂ and Isoflurane)
2. Injectables (e.g., Fatal Plus, Ketamine/Xylazine)
3. Physical, (e.g., rapid decapitation, microwave euthanasia)

Secondary Methods

To ensure death, you must follow primary euthanasia (e.g., inhalants and injectables) with a secondary method such as:

Cervical Dislocation

Cervical dislocation is used in unconscious rodents and involves the physical separation of the skull from the vertebrae by applying force resulting in the severing the cervical spinal cord. This method is only acceptable in rats weighing less than 250 grams.

Thoracotomy

This method is used in unconscious rodents and involves cutting open the thoracic (chest) cavity which induces a pneumothorax prohibiting the expansion of the lungs and leads to irreversible oxygen deprivation and death.

Exsanguination

Exsanguination involves allowing an unconscious animal to “bleed out.” In essence, this acute loss of a large volume of blood results in death.
Euthanasia and Carcass Disposal for Rats

**Decapitation**

Decapitation is also used in unconscious rodents and involves physical removal of the head from the body. The equipment used to perform decapitation should be maintained in good working order and serviced regularly to ensure such.

**Other Information**

Restraint devices are available minimizing the chance of injury to personnel and improve the positioning of the animal for any procedure. Other techniques are available for rodent euthanasia and may be acceptable when scientifically justified by the user and approved by the IACUC. For more information on euthanasia techniques, consult with the UAB ARP Veterinary Staff, and see the IACUC SOP on Animal Euthanasia.

**Carcass Disposal**

Before placing euthanized rodents in a bag, you must make sure the rats are dead! Rats can stop breathing for a minute or more and can regain respiratory function and survive. Younger rats are resistant to Carbon Dioxide asphyxiation and take longer to succumb than adult rats.

**Locations with an Animal Morgue**

**Non-Hazardous Carcasses**

1. Place the carcasses in a black plastic bag
2. Place the black bags in the Stericycle box in the morgue

**Hazardous Carcasses**

1. Place the black bags in the Stericycle box in the morgue.
Locations without an Animal Morgue

**Non-Hazardous Carcasses**

1. Place the carcasses in a black plastic bag
2. Place the bag in the designated refrigerator

**Hazardous Carcasses**

1. Place the black bag inside a red bag marked with the hazard
2. Place it in the designated refrigerator

**Carcasses Contaminated with Radioactive Hazards**

Carcasses contaminated with radioactive hazards should be disposed of as indicated by the PI’s Radioactive Materials License.