

# NU – IACUC

## POLICY

Northeastern University Institutional Animal Care and Use Committee

### Euthanasia

“Euthanasia” – *the act of killing animals by methods that induce rapid unconsciousness and death without pain or distress.*

All euthanasia of research animals performed at Northeastern is to be consistent with the 2000 AVMA Panel on Euthanasia recommendations (JAVMA, March, 2001). Any requests to perform euthanasia are to be reviewed and approved by the IACUC prior to initiation. If alternatives to accepted forms of euthanasia are to be used, criteria that will determine appropriateness of methods would include the ability to induce rapid loss of consciousness and death with no, or only momentary, pain, distress or anxiety; reliability; non-reversibility; species and age limitations; and safety of and emotional effect on personnel.

Euthanasia may be performed as required by protocol to terminate a study, or as a means to relieve pain or distress that cannot be alleviated by analgesics, *etc.*, or if deemed necessary by the consulting veterinarian. When animals experience such a condition, the veterinarian may require that the animal be euthanized. An exception to this would be if this was an expected outcome of the study and approved by the IACUC.

It is essential that personnel who are skilled in methods appropriate for the species perform euthanasia. Certification of compliance is provided when the Animal Care and Use Protocol form is signed and submitted for review and approval. Death should be confirmed by personnel who can recognize cessation of vital signs such as the presence of respiratory movement, a heartbeat, and/or movement in the species being euthanized. If necessary, additional physical methods such as cervical dislocation may be used on an anesthetized rodent to ensure death.

The selection of specific agents and methods for euthanasia will depend on the species involved and the objectives of the protocol. Generally, inhalant or non-inhalant chemical agents (barbiturates, non-explosive inhalant anesthetics, and CO<sub>2</sub>) are preferable to physical methods (cervical dislocation, decapitation). However, scientific consideration might preclude the use of certain agents for some protocols.

The following are acceptable methods of euthanasia.

Amphibians

Tricaine methanesulfonate  
Double pithing  
Benzocaine

Birds, Cats, Dogs, Rabbits Reptiles

Barbiturates  
Inhalant Anesthetics (CO<sub>2</sub>)

Fish

Tricaine methanesulfonate  
Benzocaine  
Barbiturates

Rodents and other small animals

Inhalant anesthetics (CO<sub>2</sub>)  
Cervical Dislocation (must be justified)  
Decapitation (must be justified)  
Barbiturates

A complete copy of the 2000 Report of the AVMA Panel on Euthanasia is available for your reference at the DLAM office.

Approved: