Loyola University Chicago
Comparative Medicine Facility

Standard Operating Procedure

SOP Number: 02-18-5817
Service: Research
Operating Section: IACUC
Unit: LUC/HSD
Title: Decapitation of Rats and Mice

Purpose:
To describe the procedure for decapitation of rats and mice.

Procedure:

1) Decapitation is a physical method used to euthanize rats and mice. As with all physical methods, it is classified as conditionally acceptable by the AVMA Guidelines for the Euthanasia of Animals: 2013 Edition. A conditionally accepted technique requires justification and documentation of the training and experience of those performing the procedure to obtain IACUC approval.

2) The AVMA Guidelines for the Euthanasia of Animals: 2013 Edition indicates that decapitation must be required by the experimental design and that maintenance of guillotines must be assured. Therefore, decapitation requires the following:
   a) Decapitation should be performed using commercially available guillotines. The blade should be sharpened on a regular basis to assure optimal operation. Guillotines will be required to have a log indicating dates of sharpening and usage. The IACUC on their semi-annual inspections will verify compliance regarding sharpening and usage.
   b) The plane of section should be through the atlanto-occipital joint. (first and second cervical vertebrae)

3) Up to 14 day old neonates may be decapitated using a sharp, heavy pair of scissors. The neonate is anesthetized by exposure to hypothermia (not direct exposure to ice) for approximately 5 minutes until there is no response to noxious stimuli (i.e., foot pinch). Once there is no response to noxious stimuli, the neonate is rapidly and humanely euthanized by decapitation, using a sharp heavy pair of scissors.
   a) Each decapitation will be performed in a room that is isolated from all other rodents and free of distractions for the individual performing the procedure.

4) The AVMA Guidelines for the Euthanasia of Animals: 2013 Edition recommends anesthesia prior to decapitation whenever possible. If experimental design mandates the elimination of anesthesia the following steps must be met in addition to those listed above in “2”:
   a) It must be justified with appropriate literature citations in the IACUC protocol.
   b) Those responsible for the use of this technique must make sure that all persons to perform decapitation are properly trained.
   c) Decapitation may be aesthetically displeasing to personnel. These sensitivities must be taken into account.

Responsible Official  Signature  Date

QA  Signature  Date

Version  Effective Date  Supersedes  Original Date
#2  10/6/05

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