

## Standard Operating Procedure

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

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### Purpose:

To describe the procedure for decapitation of rats and mice.

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### 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.

<b>Responsible Official Signature</b>		<b>Date</b>	
<b>QA Signature</b>		<b>Date</b>	
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