



## Standard Operating Procedure Rodent Decapitation

### 1.0 Scope and Application

The 2020 AVMA Guidelines for the Euthanasia of Animals state that decapitation is acceptable with conditions if performed correctly and that it may be used when required by experimental design and approved by the IACUC. Guillotines designed to accomplish decapitation of adult rodents in a uniformly instantaneous manner are commercially available. Guillotines are not commercially available for neonatal rodents, but sharp blades can be used for this purpose.

### 2.0 Summary of Method

- **Training Requirements**
  - The Principal Investigator (PI) must ensure that all personnel using the guillotine or other sharp blades are properly trained and proficient in their use.
  - Personnel wishing to perform decapitation without anesthetics or analgesics must be trained by an LAR veterinarian or ACUC-approved trainer prior to performing the procedure.
- **Preparing for decapitation**
  - The PI and laboratory personnel are responsible for ensuring that the equipment is always in good working condition prior to any use.
  - Good working condition means that guillotines or other blades are clean, sharp, rust-free, and move freely. The actions should be smooth with no perceptible binding or resistance, to accomplish decapitation with minimal force. Razor or scalpel blades should be new. Scissors should be specifically dedicated to decapitation.
  - The selected decapitation device **must** be capable of safely removing the animal's head in a single, clean stroke.
- **Decapitation procedure**
  - All personnel performing decapitation must be properly trained. Training must be documented in a laboratory-maintained log, indicating the training date and trainer. LAR personnel are available to provide training if requested.
  - The decapitation procedure should be performed in an area that is separate from other rodents.
  - If using a guillotine, the device should be placed on a clean and stable surface. Similarly, scissors, razors, or scalpel blades should be used on a firm surface.
  - If the animal is not anesthetized prior to decapitation, every effort should be made to ensure the animal is calm prior to performing the procedure. A Decapicone is recommended but is not required.
  - Hold the animal securely and place the animal in position.
    - Guillotine: advance the head through the entrance of the guillotine to the neck
    - Scissors: place the open scissors around the narrowest section of neck
    - Razors or scalpel blades: place the animal on a flat surface and place the sharp edge over the narrowest section of the neck
  - Verify the position of the animal's head and ensure there are no obstructions (ear tags or other implants, lab coats, or fingers).
  - In a single, swift movement, depress the guillotine blades quickly and smoothly, close the scissor blades rapidly and firmly, or quickly force down the razor/scalpel blade, decapitating the animal.
- **Guillotine Maintenance**
  - After each decapitation, rinse and/or wipe down the guillotine and surrounding area to remove all blood and tissues.
  - At the end of each day of use, thoroughly wash the guillotine with detergent and water, and dry. Oil moving parts as necessary.
  - Sharpen or replace the blades whenever they are dull. Sharpening may be performed by passing a flat sharpening stone or file that is suitable for knife sharpening across the bevel of the blades a few times until they are sharp to the touch. Never hone the flat side of the blade.
  - **Precision Sharpening and Key Shop, 1510 SE Capital Circle, Tallahassee, FL, is available to sharpen blades on a fee for service basis. Precision Sharpening and Key Shop can be reached at 850-877-7297 or 850-556-7297.**

- Record all dates of equipment maintenance, i.e., oiling, blade sharpening, in an equipment log that is maintained in the lab where the guillotine is used.

#### References

1. American Veterinary Medical Association (AVMA) Guidelines for the Euthanasia of Animals: 2020 Edition. Retrieved from <https://www.avma.org/sites/default/files/2020-02/Guidelines-on-Euthanasia-2020.pdf>

#### Revision History

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