DIVISION OF RESEARCH & INNOVATION Research Integrity & Compliance	**Institutional Animal Care and Use Committee** **Standard Operating Procedures**

Title: Guillotine Use and Maintenance

Effective Date:	**September 22, 2021**	**Document Number:**	IACUC-SOP-02-34.00

Approval/Date:

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REVISION HISTORY

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PURPOSE

Death should be induced as painlessly and quickly as possible. The euthanasia method must be appropriate to the species, approved in the animal study proposal and conform to the most recent AVMA Guidelines on Euthanasia. This procedure should be followed to ensure a painless death that satisfies research requirements when use of a guillotine is employed. A guillotine is a piece of equipment used for decapitation with a heavy blade that slides vertically in grooves, often used to decapitate small rodents.

SCOPE

It is the responsibility of investigators and/or lab staff to maintain guillotines that are used for decapitation in accordance with this SOP.
It is the responsibility of the investigator to maintain a log book for each guillotine and should be able to provide this book to IACUC and regulating bodies for inspection.

DEFINITIONS AND ABBREVIATIONS

UNT- University of North Texas, Denton
IACUC- Institutional Animal Care and Use Committee
USDA- United States Department of Agriculture
AUP- UNT approved Animal Use Protocol
SOP/SOP's- Standard Operating Procedure(s)
LAF- Laboratory Animal Facility
AV- Attending Veterinarian
PI- Principal Investigator

PROCEDURES

I. UNT Guillotine use for euthanasia

A. Euthanasia techniques should result in a rapid loss of consciousness followed by cardiac or respiratory arrest and the ultimate loss of brain function.

B. The technique should minimize distress and anxiety prior to loss of consciousness.

C. Animals must be euthanized only by trained personnel using appropriate technique, equipment and agents.

1. Documented training should be kept by the Investigator for all personnel required to use and/or maintain the equipment in the lab.

D. Use of a guillotine should only be performed on appropriate species such as small rodents and must be a method listed in the related UNT IACUC approved protocol.

E. Guillotines must be maintained appropriately to ensure they are clean and sharp.

F. All maintenance and use must be documented and maintained in a log book within the lab.

II. Cleaning the guillotine:

A. After each decapitation, personnel shall rinse and/or wipe down the guillotine and surrounding area to remove all blood and tissue.

B. At the end of each day of use, personnel shall wash the guillotine with soap or detergent and dry it.

C. Records/Log of cleaning

1. The cleaning of the guillotine shall be marked in a log book kept in the lab where the guillotine is kept.
2. The number of rodents decapitated each day shall be noted in the log book.

III. Testing and sharpening

A. Before each day's use, the guillotine blade should be checked for sharpness using a carrot or rubber tubing.

1. The carrot or tubing should be cut by the blade with minimal force.
2. If resistance is felt cutting the carrot or tubing, or if the blade does not cut the carrot or tubing smoothly, the blades will need to be sharpened before use.

B. Document the test in the log book and whether or not the guillotine "passed" this test.

1. If the guillotine does not pass the test, the blades should be sharpened professionally, or the unit should be sent to acquire replacement blades from the vendor.
   a) should be visibly labeled and stored with "DO NOT USE" .
2. Sharpening and blade replacement should be noted in the log book.

REFERENCES

1. USDA Guide for Animal Care and Use
2. 2020 AMVA Guidelines for Euthanasia of Animals

APPENDECES

IACUC Standard Operating Procedures