1.1 Intent
The intent of this Standard Operating Procedure (SOP) is to describe acceptable methods of transport, housing, care, enrichment, anesthesia, and euthanasia of rats and mice. This SOP is intended for personnel that use rodents in research or teaching or who care for animals in the Animal Care Facility. This procedure is approved by the UWSP Institutional Animal Care and Use Committee (IACUC; October 31, 2011). All investigators using rodents in teaching or research must submit a protocol to the IACUC for approval prior to animal use. This SOP is intended to expedite the preparation of a protocol for review; it does not replace the investigator-prepared protocol. Reference to this SOP is sufficient to answer many questions on the IACUC protocol submission form. If rodent use deviates from this SOP, the changes, additions, or omissions must be clearly outlined in the animal use protocol and must be submitted for approval to the IACUC prior to implementation. A protocol is required for each project where rodents will be used.

This SOP follows the Guide for the Care and Use of Laboratory Animals, eighth edition (Institute for Laboratory Animal Research, 2011), the AVMA Guidelines for the Euthanasia of Animals: 2013 Edition (AVMA 2013), and the Public Health Service Policy on Humane Care and Use of Laboratory Animals (2002). Please see the last page for full references and contact information.

1.2 Requirements of personnel implementing this SOP
The principal investigator or lead instructor must ensure that all individuals responsible for rodent care and/or use are familiar with all elements of this SOP as well as additional requirements outlined in individual protocol.

1.3 Safety
Personnel should be aware of safety equipment locations and recommendations for use. General safety protocols can be found on the UW-SP Environmental Health and Safety website: http://www4.uwsp.edu/ehs/.

No food or drink intended for human consumption is allowed in the facility, except in the administration office.

If any maintenance issues arise such as extreme changes in temperature or room flooding, maintenance can be reached at x4219. In case of emergency, personnel should call Campus Security at x3456 or 9-911.

1.3a Security & Visitation policy
The Animal Care Facility maintains restricted locked access. The surgery room and all rooms containing rodents must be locked before personnel leave the facility. Only authorized personnel are admitted into the facility. Visitors must be supervised at all times.

1.4 Approved sources of animals
Approved sources of rodents include licensed or registered commercial laboratory animal suppliers. Rodents should be obtained from USDA Class A dealers, and should not be purchased from pet stores. Animals from approved commercial suppliers can be ordered by the purchasing agent for the CNR.

Approved suppliers currently used by UWSP faculty and staff include:

- Simonsen Laboratories: http://www.simlab.com/

If rodents are not obtained from an approved source as listed above, the protocol must describe the procedure for obtaining the animals and for ensuring that the health, husbandry, and transport of the animals is in accordance with Guide for the Care and Use of Laboratory Animals.
1.5 Emergency
In the event of an animal health emergency, facility failure, or environmental disaster, immediately contact the UWSP faculty member in charge of the projects located in the Animal Care Facility. If they are unavailable, please contact the next person on the contact list, which is posted on the bulletin board and in the cage washer room.

On-campus, the contact list is generally:
- Faculty investigator
- Facility supervisor, Emily Starke x4823, or 715-310-4344
- Attending veterinarian, Dr. Kelble at Community Animal Hospital: 715-341-1723
- Ellen Jo Holguin, Biology stockroom manager: 346-3794
- Jerry Kummer, CNR building manager: 346-4238
- Campus security: 346-3456
- 9-911

1.6 Transportation
Personnel transporting rodents, whether intra- or inter-institutionally, must ensure the safety and comfort of the animal(s) at all times. Transportation media must provide adequate food, water, temperature, humidity, comfort, and overcrowding must not occur. Delivery of animals must be coordinated to occur during business hours.

1.7 Rodent Inventory
Rats and mice are to be housed in separate rooms. Identification cards must include source of animals, date of arrival, date of birth, species, sex, name or other identification, and principle investigator if any. Rats should be housed two per cage unless protocol specifies otherwise. If a cage with two large rats is becoming soiled in less than a week, or contains animals who are causing each other harm, then those animals should be separated. Mice, baby/juvenile rats may be housed more than two per cage. Births and deaths should be recorded on daily log sheets.

1.8 Husbandry
All personnel should have working knowledge of cleaning, feeding, watering, and enrichment schedules. Only trained workers are authorized to implement these tasks. Log sheets must be completed daily for each room that houses rodents. Personnel must ensure that appropriately sized cages for each animal are used to prevent escape.

1.8a Observation & monitoring
Each cage must be checked daily for water and food levels, animal health, and animal births or deaths. Log sheets must be completed daily. The acceptable temperature range for rats and mice is between 68 and 79 degrees Fahrenheit (20-26 degrees Celsius). Relative humidity should be between 30% and 70%.

1.8b Feeding
All rodents should have adequate food in their food hopper (at least ½ cup). Food levels must be checked daily, and more food should be added if levels are observed to be low. A closed food container should be available in each rodent room. If food containers are empty, personnel may obtain more food from the supply room. The date that the container was refilled should be logged on the food container. Recommendation from the feed manufacturer should be followed regarding shelf life and storage. Additional food may be provided to rodents as ‘treats’ at the caretaker’s discretion. If this food is stored in the Animal Care Facility, it must be labeled “not for human consumption” and dated.
1.8c Mortality & removal
Mortalities should be removed daily from each cage, recorded with the daily log and on the Euthanisia / Natural Death log sheet, placed in sealable bags, labeled with the date that animal was observed to be dead, and placed in the freezer. Rodents that are safe for avian or reptile consumption may be donated for that purpose. All other animals are placed in a cremation bag and delivered to the Biology stockroom.

1.8d Cage cleaning
Cages are cleaned at least once per week. Cleaning consists of replacing cage, bedding, water bottle, sipper, and any toys or housing inside cage. The wire cage tops must be sanitized at least once per month. Dirty housing equipment, water bottles, sippers, and toys are sanitized in the cage washer. Before cages are placed in the cage washer they must be rinsed and scrubbed out, using soap if very dirty. If newspaper is used in place of bedding in an extra-large cage, it must be replaced before rotating animals in that cage, and the pan must be disinfected. After bedding is disposed of in waste container, waste should be emptied in the loading dock dumpster.

1.8e Room and facility cleaning
Floors in the Animal Care Facility should remain generally free of bedding and other debris. Food spills must be cleaned up immediately. Regular facility cleaning is scheduled as follows: Floors should be swept and mopped weekly at a minimum, and more often as needed. Cage racks should be sanitized once per month, and swept as needed. All areas should be kept free of clutter. Vent filters in rooms containing rodents should be changed every two months, and those in all other rooms should be changed biannually.

1.8f Disease control
Personnel handling rodents or any associated equipment should wash their hands thoroughly upon completion of work or more often as needed. All housing, feeding, and watering equipment must be disinfected before used for a different animal. Food and water that has been used for one animal (or set of animals) must not be given to another animal. Personnel should ensure that no open wounds are present on their hands before handling the animals. Disposable gloves are available for use in the cage wash room.

1.8g Quarantine
Rodents suspected of having a contagious disease should be separated from all other animals. Quarantine areas should be managed according to rigorous infectious agent control practices.

1.9 Enrichment
Enrichment is highly encouraged and should be provided as often as possible. Some protocol may specify that certain animals are to receive no enrichment. The following are recommendations for enrichment:
- Two mice per cage
- Housing structures inside cages, which could include cardboard boxes, PVC elbows, jars, etc.
- Chew ‘toys’ such as cardboard, sticks, Nylabone material, crumpled newspaper, etc.
- Wheels
- Fresh herbs for scent stimulus
- Rotation of rats to large cage (rats from more than one cage should not be mixed in the large cage)
- Treats: peanut butter, bird seed mixed in (clean) bedding, fruit, vegetables, bread, cereal, etc. Only a small amount of perishable food such as fruit should be placed in a cage at one time.
- Plastic bottles with food inside or ‘congs’ containing food (they have to work to get it out)
- Mice can be housed in the rat cages, so there is room for a wheel and other toys
- Mice should be provided with nesting squares
- Rats should be handled on a regular basis

1.10 Anesthesia
Anesthesia should be used before performing procedures that may cause more than momentary mild discomfort. Carbon dioxide and isoflurine are approved for anesthesia. Personnel should adhere to procedures outlined in applicable protocols.
1.11 Euthanasia
According to AVMA 2013 Guidelines for the Euthanization of Animals, acceptable methods of euthanasia of rats and mice are as follows: Carbon dioxide halothane, isoflurane, sevoflurane and desflurane, with or without nitrous oxide. Regardless of method used, euthanasia must be performed in the provided container under the fume hood in the surgery room. Personnel performing euthanasia shall perform checks to determine whether the animal is expired while the animal remains in the chamber. Personnel performing euthanasia shall fill out the Euthanasia log. Any personnel performing euthanasia must receive appropriate training to perform the procedure, adhere to IACUC-approved protocols and institutional policies.

1.12 Disposal of carcasses
Upon death, all animals should be placed in the freezer. Those that are safe for animal consumption may be donated and those that are not must be delivered to the stock room in a cremation bag for incineration.

1.13 Resources and references

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Title</th>
<th>Phone</th>
<th>Room</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Emily Starke</td>
<td>Animal Care Facility Supervisor</td>
<td>x 4823</td>
<td>222 TNR</td>
<td>Animal Care Facility (laboratory animals)</td>
</tr>
<tr>
<td>Dr. Kelble</td>
<td>Attending Veterinarian</td>
<td>715-341-1723</td>
<td>Community Animal Hospital</td>
<td>Biannual inspections and questions regarding animal health</td>
</tr>
<tr>
<td>Tammy Naczek</td>
<td>CNR purchasing agent</td>
<td>x 4685</td>
<td>194 TNR</td>
<td>Ordering Rodents</td>
</tr>
<tr>
<td>Ellen Jo Holquin</td>
<td>Biology stockroom manager</td>
<td>x 3794</td>
<td>193 TNR</td>
<td>Carcass Disposal</td>
</tr>
<tr>
<td>Jerry Kummer</td>
<td>Building Manager</td>
<td>X4238</td>
<td>196 TNR</td>
<td>Heat or flood problems</td>
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<tr>
<td>Campus Security</td>
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