

Transportation of Research Animals

Policy: Rodent species may be transported by research faculty and staff to IACUC-approved use sites (laboratories and core facilities) by research personnel following the guidelines below. Rodents may **NOT** be transported by research faculty and staff from one vivarium to another without prior CMRU approval. To protect the biosecurity of animal colonies in each vivaria, research faculty and staff must first submit a [transfer request form](#) to CMRU and receive prior approval. This allows CMRU veterinarians to track animal transfers between vivaria in the event of a disease or parasite outbreak to assess risk to additional vivaria. Non-rodent mammals may be transferred by research personnel only via internal corridors; transport of non-rodent mammals between buildings must be conducted by Comparative Medicine Research Unit (CMRU) personnel. Transportation of animals outside of centrally managed facilities should occur only when necessary and planned ahead to minimize transit time. Live animals cannot remain outside of CMRU vivaria for more than 12 hours unless specifically approved in an IACUC *Proposal* (see “Laboratory and Satellite Rodent Housing” policy). Transportation of animals from UofL animal facilities to another institution requires coordination between institutions and prior approval from both institutions. International exportation of animals must also comply with the UofL Export Control Policy. It is the responsibility of the investigator to contact the Export Control Program (ECP) if proposing to export research animals to sources outside of the country. Export of Proprietary Research Animals (animals owned and/or created by UofL) is subject to review by the Export Control Administrator (ECA), Office of Research and Innovation. To arrange for inter-institutional transport of animals, including international exchanges, investigators must complete and submit a [CMRU Import/Export request form](#).

Rationale: Federal regulations and national guidelines stipulate that all animal use, including housing and transportation, support species-specific behaviors. The *Guide for the Care and Use of Laboratory Animals*² states: “Careful planning for all types of transportation should occur to ensure animal safety and well-being. The process of transportation should provide an appropriate level of animal biosecurity while minimizing zoonotic risks, protecting against environmental extremes, avoiding overcrowding, providing for the animals’ physical, physiologic, or behavioral needs and comfort, and protecting the animals and personnel from physical trauma.” Transport and use of animals outside facilities specifically designed for such use provides an opportunity for animal distress and may have a negative impact on research data. Furthermore, transport through public areas creates the potential for negative publicity and potentially exposes personnel to risks not mitigated by the institutional occupational health and safety program. To ensure animal welfare and personnel safety, the IACUC requires that special provisions be met regarding the transportation of animals outside of CMRU housing rooms.

Definitions:

<u>Term</u>	<u>Definition</u>
<u>Home Cage</u>	<u>Cage in which rodents are routinely housed within the CMRU</u>
<u>Vivarium/Vivaria</u>	<u>CMRU housing facility(ies)</u>
<u>Primary Enclosure</u>	<u>Device used for animal containment with which there is direct contact with the animals</u>

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Procedures, Guidelines, and Exceptions:

1. Animals must be transported in a primary enclosure that follows *Guide*^{1,2} and AWAR^{3,4} recommended space allowances (*i.e.*, cage density guidelines remain in place), allows adequate ventilation, provides a dark and secure environment, allows the animal to remain clean and dry, and is free of sharp edges or projections that could cause injury and easily sanitized. The home cage in which rodents are housed within the CMRU meets these requirements and is usually recommended for use during transport. Non-rodent mammals must be transported in CMRU transport carts or containers appropriate for the species. Consult with a CMRU veterinarian prior to transport if information on requirements and proper transportation is needed.
2. The primary enclosure **must be secured** such that it cannot be inadvertently opened or turned over during transit.
3. Primary enclosures must be covered with an opaque cover during transport to reduce animal distress, public view, and dispersal of allergens. The covers should not impede cage ventilation.
4. Primary enclosures and covers must be discarded or sanitized between uses. Home cages used as primary enclosures must be returned to a designated area of the CMRU within 1 day.
5. Any person transporting animals must be approved to handle animals by appropriate inclusion as key study personnel on the applicable IACUC-approved *Proposal* or be a member of CMRU staff.
6. Public transportation and the use of bicycles, motorcycles or motor scooters are not acceptable or permitted under any circumstance.
7. Food and a source of hydration should be provided if the animals are temporarily held prior to use and/or return to the vivarium of origin ***or*** if extramural transportation is involved, a food and hydration source ***must*** be provided for the animals. Water bottles should be removed or turned upside down during transport of rodent cages to prevent leaking.
8. Cages of animals infected with biohazards, or that have received chemical treatment/exposure must be identified by the original biohazard or chemical hazard cage cards if transport occurs within the duration of active hazardous status or interval of agent containment.
9. Acclimation periods of animals according to the “Acclimation Periods for Newly-Received and Transferred Animals” must be followed (or have an exception approved in the IACUC-approved Proposal).
- 10. Intramural Transportation (within UofL vivaria) or to UofL laboratories)**
 - a. Procedures outlined above in items 1 through 9 of this section must be followed.
 - b. Transportation of animals from one vivarium to another must be approved in ***advance*** by completing a CMRU form. If animals will be transferred on a regular basis, please contact the import/export coordinator, and report the estimated number and frequency of transfers so that it is not necessary to request repeated approval. Please keep track of the number of cages

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transferred and the dates of transfer in the event that the CMRU veterinarians need to track an animal disease outbreak.

- c. Public elevators and corridors must be avoided due to security and potential allergen exposure to the public and building personnel. Freight elevators should be utilized whenever possible. If you do not have access to a freight elevator or have a problem with a freight elevator, please contact the IACUC office.
- d. Primary enclosures may be placed on a cart if transport will be limited to internal corridors.
- e. Certain animal housing rooms or areas in each vivarium have been designated as turnaround space. Turnaround rooms/space is outside of the rodent barrier facilities and is an area where animals that have been removed from the barrier are returned to in order to protect the barrier facilities from potential rodent pathogens that animals outside of the barrier could be exposed to. Transportation of animals from a turnaround space to a barrier is unacceptable.
- f. Transportation must be immediate and direct, with no intentional stops *en route*.
- g. The original cage card should remain with the cage(s). Once it is scanned in the new facility, it will be electronically transferred by the system.

11. Extramural Transportation

- a. Procedures outlined in items 1 through 8 of this section must be followed.
- b. Transportation of animals from the CMRU and other institution's research facilities requires prior approval from both institutions. Prior to transportation off-site, the transportation must be included in the applicable *Proposal(s)* and approved by the UofL IACUC and a [CMRU Import/Export request form](#) must be completed and approved. Use of special primary enclosures and private vehicles must be approved within the pertinent IACUC *Proposal*. The use of private vehicles for the transportation of animals is discouraged, though may be justified in an approved IACUC proposal. Private vehicles must be inspected by the IACUC before initial use and then every six months thereafter. Inspections can be arranged through the IACUC Office.
 - i. Vehicles must be climate-controlled to maintain the appropriate temperature for the animals.
 - ii. The container used to transport animals must be secured to the vehicle.
 - iii. Animals must be protected from public observation at all times.
 - iv. Animals must be protected from direct exposure to the sun.
 - v. If coverings or secondary containers are used to protect animals from temperature extremes, direct sunlight, or visual observation, they must not inhibit ventilation.
 - vi. The vehicle should have sanitizable surfaces in any areas that could be in contact with the animals or equipment; the use of a sanitizable rubber mat or tarp is recommended.
 - vii. Proper precautions should be taken so that any potential spills are containable.
 - viii. The most direct route of travel should be taken.
 - ix. Bedding should be provided during transit. A CMRU veterinarian should be consulted prior to travel to determine feed and water requirements.
 - x. Do not smoke in the vehicle or around the animal enclosures.
 - xi. A member of research staff should remain with or in the vehicle at all times when animals are present.
 - xii. The driver of the vehicle must obtain and carry any permits needed for travel.
 - xiii. Other necessities are determined on a case-by-case basis by the IACUC after taking species and length of travel into consideration.

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References:

1. Federation of Animal Science Societies, Guide for the Care and Use of Agricultural Animals in Research and Teaching, 3rd Ed., Revised 2010.
2. National Research Council, Guide for the Care and Use of Laboratory Animals, 8th Ed., National Academies Press, Revised 2011.
3. Animal Welfare Act, 7 U.S.C. § 2131-2159 (2015). (<https://www.govinfo.gov/content/pkg/USCODE-2015-title7/html/USCODE-2015-title7-chap54.htm>)
4. Animal Welfare Regulations, 9 CFR AWR (2016). (<https://www.govinfo.gov/content/pkg/CFR-2016-title9-vol1/xml/CFR-2016-title9-vol1-chapI-subchapA.xml>)

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