

Procedure: IACUC-13  
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**UC Davis  
Institutional Animal Care and Use Committee (IACUC)**

***Title: Transporting Research and Teaching Animals***

**I. Purpose:**

The purpose of this policy is to describe the requirements for movement of animals on and off campus, between campus buildings, and within areas outside the vivarium space. The Guide for the Care and Use of Laboratory Animals (*The Guide*, NRC 2011) 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.*" Implementation of appropriate handling procedures reduces the spread of disease, exposure to allergens, and ensures safety and well-being of the animals during transport. Transportation of USDA covered species must meet the requirements of the Animal Welfare Act and Regulations regarding transportation. A standard operating procedure (SOP) template is available to assist investigators and vivaria staff with developing a functional and feasible procedure while following the policy.

**II. Policy:**

- A. The physical transport of animals shall be in accordance with the current effective version of *The Guide*, the USDA Animal Welfare Act (AWA), and the Guide for the Care and Use of Agricultural Animals (Ag Guide). Animals will be properly identified in transit according to the species-specific standard for animal identification.
  1. Transportation of animals from the vivarium space to a procedure room or laboratory space within the same building does not need to be described in the Animal Care and Use (IACUC) protocol but must meet all expectations of this policy.
  2. Transportation of animals between buildings or vivaria must be stated in the IACUC approved protocol in section 9. For most facilities, requests for physical transfers from one housing location to another (e.g., room to room, facility to facility) shall be made by submitting a request in the Animal Tracking System (ATS) 24-72 hours in advance of the actual transport date.
  3. Animal transfer requests must\* be used to obtain approval to move animals from one approved IACUC protocol to another approved IACUC protocol, from one

location to another (i.e., room to room, building to building) or when animals will be taken to a laboratory site outside a vivarium and then returned back to the vivarium.

\*Any exemptions must be approved by the IACUC Office or Attending Veterinarian.

- B. If transportation is between buildings and/or in a vehicle an SOP is required. Transportation may be performed by vivarium staff or laboratory staff. If performed by vivarium staff, an IACUC approved facility SOP is required. If laboratory staff will be transporting animals, a laboratory specific SOP must be included with the IACUC protocol. A template SOP is provided in the Appendix of this document.
- C. All methods of transportation must ensure animal health and safety. All animals must be alert and mobile (not sedated or anesthetized) during the transportation process unless described and approved in the IACUC protocol and applicable SOP(s). Efforts must be taken to ensure the transportation time is minimized and public areas avoided. If transporting USDA covered animals, additional regulations in the Animal Welfare Act (AWA) and Regulations apply. Please refer to the [Animal Welfare Regulations](#) for each species.
- D. Training on animal transport must be documented in a training record. Additionally, proficiency must be documented when driving non-routine vehicles such as towing trailers or using fish transport trailers. The license of the driver/operator must be of a proper class for the type and weight of vehicle.

**Note: Nonhuman primates must always be transported in dedicated university vehicles by vivarium and/or veterinary staff under the required BSL2 conditions. These vehicles are designated for nonhuman primate transport and are equipped and sanitized per Facility and/or Veterinary procedures. Additionally, the UC Davis vehicles used for nonhuman primate transport must always have an individual from the vivarium and/or veterinary staff with the animal(s) at all times. The temperature during animal transport will be strictly maintained and monitored within the temperature range specified in the Animal Welfare Act Part 3 SS 3.91d 45 °F (7.2 °C) to 85 °F (30 °C). If this is not possible, the animal cannot be transported.**

### III. Procedures:

- A. A university-owned vehicle is preferred for transport, but a personally owned vehicle is allowed for transport of some species when the animals are within appropriate containment. A transport device such as a cart may be used in place of a vehicle to transport small animals in cages for very short distances minimizing exposures to elements. Under no circumstances are animals to be taken on public transportation (e.g., shuttle or bus). Transportation via bicycle is also prohibited.

1. The cages must be appropriately covered to avoid drawing attention to the animals and protect light sensitive animals from bright light. A laboratory coat, cloth, fabric drape, or similar is appropriate for covering the cages without inhibiting air flow. Plastic bags must **never** be used to cover cages/containers/animals during transport because they can restrict airflow and place the animals at risk. Additionally, a barrier must also be placed between the cages/pet carrier and the upholstery or floor of the vehicle. Cages or carriers should be secured from tipping by placing them on the floor or securing them to the seat with a seat belt or other means.
2. No eating, drinking, applying cosmetics, smoking, vaping, or use of any tobacco products is permitted in vehicles transporting animals in the same compartment as personnel.
3. During the transport of animals, unnecessary stops are not permitted (i.e., drive-through at a bank or restaurant). Animal transport must be direct from the housing area to the facility they are being transported to. Animals must never be left unattended in a vehicle.
4. Personally owned vehicle transport is discouraged, but may be permitted as a transportation method provided:
  - a. There is an IACUC approved SOP that covers transportation including temperature requirements and an emergency plan. See Appendix 1 for more information.
  - b. The vehicle is legally registered and insured.
  - c. The vehicle is clean and in good condition. For example, the tires have adequate tread, the windows are intact and functional, lights and signals are in working order, the seat/upholstery are clean and not torn, seat belts and safety features are all functional, and the vehicle is running properly with no known hazards.
  - d. The vehicle has a functioning climate control system that must be used as needed to maintain the temperature appropriate for the animals per regulations.
  - e. The IACUC and/or Veterinary staff can inspect the vehicle at their discretion or if any concerns arise regarding the suitability of the vehicle for animal transport. See Appendix 2 for an example of a vehicle inspection form.
  - f. Non-university affiliated individuals must not be in the vehicle during transport. Additionally, university individuals in the vehicle must be cleared through the Occupational Health Surveillance System for animal exposure/animal work and permitted to be in the vehicle while animals are present. They must also be listed on the IACUC protocol.
5. Escaped animals during transportation:

- g. If an animal escapes during transportation- if safe and feasible catch the animal if possible. Immediately call Campus Veterinary Services
- h. Notify IACUC as soon as safe to do so-530-752-2364
- i. If it is a Fish and Wildlife covered species refer to your Emergency Action Plan
- j. If the animal is treated with any biological, chemical, or radiation hazard call Safety Services-immediate help line-530-752-1493
- k. If the escape is creating a road hazard call 911
- l. Always have PPE with you in the event handling is needed

## B. Species Specific Considerations

1. USDA covered species have species specific requirements that can be found in the AWA and Regulations that must be adhered to. For specific questions, please contact the IACUC Office.
2. Rodents
  - a. Rodents must be transported in filter top cages and those tops must be secured to the cage during transport using tape or similar means. Taping filter paper or another breathable barrier over the air holes of the containers and following the above barrier instructions will reduce allergen exposure of personnel and minimize contamination of the transport vehicle. Plastic bags must **never** be used to cover cages/containers during transport because they restrict airflow and place the animals at risk. Air flow between and around cages must be ensured. Do not stack cages.
  - b. All transport containers, including rodent caging, should be freshly cleaned to minimize the transfer of allergens. Alternatively, the external surfaces of original/home rodent caging that do not come into direct contact with animals may be wiped down to remove allergens prior to transport; this will minimize the additional stress of a cage change to a transport container prior to travel.
  - c. Rodents may not be overcrowded for transport. For example, a cage designed to house four mice may not have more than four mice for transport. While this increases the number of actual cages moved, it ensures compliance with cage space requirements and comfort of the animals. Additionally, combining unfamiliar animals (i.e., animals typically housed in separate cages) into the same transport cage is not permitted without IACUC approval as this can result in additional stress and potential trauma, even for short transfer periods.
  - d. Ensure there will be no water leaks during transportation.
    - i. Turn water bottles upside down (ensure they are returned to appropriate position at destination).

- ii. Water pouches can be left in place, as they typically do not drip when moved. They may leak if removed.
- e. Cage cards must remain with the cage and accompany the animals.
- f. Do not put cage cards inside the cages as the animals may destroy them.
- g. The visual barrier covering the transport container/rodent cage must be clean, sanitizable or disposable, and may not be taken into the animal facility. The barrier may not be stored in the vehicle as it may be contaminated with allergens. When the transport event is completed, anything contacting the transport container must be removed from the vehicle and the vehicle appropriately sanitized and items in contact with the transport container discarded.
- h. Cages/crates/containers must be secured prior to animals leaving the original location and until arriving at the new location to prevent animal escapes.

### 3. Small Mammals, Birds, and Reptiles

- a. Small mammals, birds, and reptiles can be transported in secure pet carriers. It is essential to ensure the animals are contained, allergens minimized, and the crates are appropriately sized for the animal.
- b. Crates appropriate for the animals must be used. They must be transported in the climate-controlled portion of a vehicle if used.
- c. A covering must be in place between the crates and the vehicle, and allergen-reducing measures must be used, for example breathable material placed over the vents.
- d. If the animal is a USDA covered species, AWA Guidelines and Regulations must be followed.

### 4. Agricultural Animals/ Livestock

- a. Livestock should be transported in a University owned trailer, if possible.
- b. Trailer floors should be free of weakness or damage and covered with non-slip mats. Trailer floors and mats should be cleaned after each use. If unhealthy animals are transported (e.g., to the Veterinary Medical Teaching Hospital or California Animal Health and Food Safety), the trailer must also be disinfected after use.
- c. Trailers must not be overcrowded. Additionally, the livestock must be of similar size or segregated in the trailer, for example calves/lambs should not be loaded with adult cattle/sheep as they can be trampled. The trailering vehicle (truck) must similarly be registered and in good condition, i.e. no rust or sharp edges, and the truck, hitch, and trailer rated for the weight being pulled. Some smaller livestock may be transported in crates in the cab of the vehicle following the provision

above for small mammals. The bed of a pickup is only used when equipped for transport, or crates are secured for small livestock/poultry per routine agricultural practices.

- d. A light check must be performed and all lights on both the truck and trailer must be operational. If the truck and trailer have a braking system it should be in good working order and properly adjusted for the trailer and load. All tires must have adequate tread, be properly inflated, and an inflated spare must be available. All gates and doors must securely fasten and be checked prior to travel.
- e. Livestock must be transported in accordance with all laws and regulations regarding length of trip and required overnight stops for water and feed if transported long distances.

#### 5. Aquatic Animals

- a. Water quality of aquatic animals must be maintained, for example, dissolved oxygen and temperature for fish transported in a static or closed container.
  - i. The transportation container should be well insulated and have an opaque lid.
  - ii. In some cases, heat or refrigeration may be required.
  - iii. For longer duration trips, it is recommended to check the behavior of the fish and the transport tank temperature and oxygen levels at regular intervals during transport to ensure there are no changes that may place the animals at risk.
  - iv. On arrival, particular care should be taken to check water temperature to ensure that fish are not exposed to temperature shock during transfer.
- b. Any restricted species must be transported in accordance with California Fish and Wildlife Regulations and permits. Permit paperwork must be kept with the animals.

#### 6. USDA Covered Birds

- a. Transport container must meet the requirements of **9 CFR Part 3 Subpart G § 3.162** for construction and ventilation,
- b. Container used to transport animals off campus should be cleaned and sanitized before each use and clearly marked on top and on one or more sides with the words "Live Animals," in letters at least 1 inch (2.5 centimeters) high, and with arrows or other markings to indicate the correct upright position of the primary enclosure.
- c. Live birds transported in the same primary enclosure must be of the same species or compatible species and maintained in compatible groups. If

more than one bird is being transported, socially dependent birds must be able to see and hear each other.

#### IV. Resources:

1. Animal Welfare Act and Regulations  
<https://www.nal.usda.gov/awic/animal-welfare-act>
2. ILAR, Guide for the Care and Use of Laboratory Animals  
<http://nap.edu/12910>
3. PHS Policy  
<https://olaw.nih.gov/policies-laws/phs-policy.htm>
4. Animal Tracking System  
<https://iacuc.ucdavis.edu/protocol/AnimalTracking/index.cfm>
5. WVU IACUC Policy “Transportation of Animals Used in Biomedical Research and Teaching”  
[https://animal.research.wvu.edu/files/d/c48c9f7c-17aa-4da6-b386-6ea9fdb27f06/transportation-of-animals-used-in-biomedical-research-and-teaching\\_v1\\_approved.pdf](https://animal.research.wvu.edu/files/d/c48c9f7c-17aa-4da6-b386-6ea9fdb27f06/transportation-of-animals-used-in-biomedical-research-and-teaching_v1_approved.pdf)
6. WSU IACUC Policy “Animal Transportation”  
[https://iacuc.wsu.edu/documents/2016/06/policy\\_33-3.pdf](https://iacuc.wsu.edu/documents/2016/06/policy_33-3.pdf)
7. DMV Handbook on Towing  
<https://www.dmv.ca.gov/portal/handbook/recreational-vehicles-and-trailers-handbook-2011/license-classes-and-requirements/>
8. Ag Guide: [https://www.asas.org/docs/default-source/default-document-library/agguide\\_4th.pdf?sfvrsn=56b44ed1\\_2](https://www.asas.org/docs/default-source/default-document-library/agguide_4th.pdf?sfvrsn=56b44ed1_2)
9. 9 CFR Part 3 Subpart G  
<https://www.ecfr.gov/current/title-9/chapter-I/subchapter-A/part-3/subpart-G>

**Appendix 1: Example/Template SOP**

<b>Standard Operating Procedure</b> <i>(Insert your labs name Operating Procedures)</i>
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<b>Title: <i>Transportation of Animals</i></b>	<b>SOP No.:</b>
<b>Issue Date <i>xx/xx/xxx</i></b>	<b>Page X Next Review Date: <i>xx/xx/xxxx+3</i></b>

- I. Purpose: To describe the transportation of animals to and from research areas (e.g., laboratories, housing facilities). This SOP assumes the following conditions exist: the IACUC Protocol is approved for the transportation, Animal Tracking System approval has been obtained (if needed).
  
- II. Scope/Responsibility: It is the responsibility of staff preparing, transporting and returning animals to follow this SOP.
  
- III. Materials:
  - A. Transport containers/caging/crates
  - B. Animal Tracking System (as needed)
  - C. Cage Cards
  - D. Barriers for vehicles (e.g., pads/lab coats, cloth to cover cages)
  - E. Tape or other option to seal cage/crate/container
  
- IV. Procedure:
  - A. If needed a transfer request is submitted in the animal tracking system.
    - 1. Approval must be given in the system
  - B. The animals are placed in a suitable container for shipping.
    - 1. This may be the home cage for rodents, a crate for small mammals, a sealed container with appropriate substrate for aquatics.
    - 2. The home cage/crate/container itself must be intact, free from wear, holes or other perforations. The filter in the top must be intact and not clogged with bedding or debris to allow for air exchange, but still prevent contamination/exposure.
    - 3. The cage/crates/containers are sealed to prevent both escape and exposure.
      - i. Ensure cage/crate/container remains sealed until the animals are in the new location.
    - 4. The cage card must accompany the animal(s).
    - 5. For animals transported in vehicles belonging to the university or personally owned vehicles the animal must be transported in the passenger compartment of the vehicle and climate control must be used to maintain species appropriate temperature. For vehicles with climate-controlled cargo areas, those may be used as long as species appropriate settings are used on the cargo climate control. Please see the Standard of Care SC-20-108 Transportation of Research and Teaching



Animals for further detail, and the IACUC policy on animal transportation for more detail on climate control, appropriate vehicles, and the use of trailers for larger species.

6. A barrier between the animal cage/carrier should be used, for example a lab coat or pad.
7. No Personnel not affiliated with the animal care program should be in the vehicle.
8. Loud music or turning the radio on should be avoided.
9. Stops are to be minimalized (refueling or other necessity based stops only-preferable to obtain fuel required prior to loading animals). No eating, drinking, applying cosmetics, smoking, vaping, or use of any tobacco products is permitted in vehicles transporting animals in the same compartment as personnel.
  - i. Under no circumstances should stops be made where animals are left unattended in a vehicle or taken through a drive through or other places visible to the public.
  - ii. The person transporting the animals will contact another lab member and provide them with a travel itinerary, including route and ETA. If the animal transport is behind schedule, the driver will be contacted to ensure safe transit and establish a new ETA or determine if the emergency plan below must be initiated.
  - iii. In the event of an emergency situation, if the driver is uninjured, they will stay with the animals until another person can be contacted to come pick them up. If the driver is injured or not responding and possibly needs medical assistance then the PI will be responsible for coordinating the safety of the animals and will contact CVS and IACUC if there are injured or dead animals.
  - iv.

**V. Revision History:**

<b>Revision</b>	<b>Author</b>	<b>Revisions Made</b>	<b>Effective Date</b>
01	Staff Member	New SOP	xx/xx/xxx

## Appendix 1: Example Car Inspection Form

### Animal Transportation via Personal Vehicles

*All personal vehicles used to transport animals may be inspected prior to use. Personal vehicle transport must be approved on a case by case basis and re-inspection must occur semi-annually for continued use.*

Name of vehicle owner (please PRINT): \_\_\_\_\_  
Phone number: \_\_\_\_\_ Email: \_\_\_\_\_  
Protocol Number: \_\_\_\_\_ PI name: \_\_\_\_\_

**Species to be Transported** (check all that apply)

- |  |  |                                 |
|--|--|---------------------------------|
| <input type="checkbox"/> Laboratory Mouse          | <input type="checkbox"/> Laboratory Rat    | <input type="checkbox"/> Rabbit |
| <input type="checkbox"/> Fish                      | <input type="checkbox"/> Amphibian/Reptile | <input type="checkbox"/> Bird   |
| <input type="checkbox"/> Other (please list) _____ |  |                                 |

**Vehicle Type:**     SUV/Van with internal cargo area     Passenger Car  
 Truck with separate environmentally-controlled cargo area.  
 Other (please describe) \_\_\_\_\_ State and License #: \_\_\_\_\_

**Vehicle Inspection:**

- **Air Conditioning:** works/doesn't work
- **Heating:** works/doesn't work
- **Location to prevent animals from being in direct sunlight:** yes/no
- **Location to secure the animals within the vehicle:** yes/no

**Please check the following boxes to indicate your understanding and agreement with the requirements below.**

- Animals will never be placed and transported in the trunk of the vehicle
- Animals will never be placed in direct sunlight streaming through a window.
- During cold weather conditions, the heater must be used but not blow directly on the animals.
- During hot weather conditions, the air conditioner must be used but not blow directly on the animals.
- Animals must be transported within a secondary container in case they escape from the primary containment.
- Animal cages/containers will not be stacked during transport without having exposed ventilation.

Transporter's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Inspected by: _____ Date: _____
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