



SUBJECT: Animal Transport	Effective Date: 6/07/2019	Policy Number: 10.4.10				
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Responsible Authorities: Vice President, Research Institutional Animal Care and Use Committee Director, Comparative Medicine Director, Research Integrity						

- I. Background
 Transporting animals can be stressful and can increase the potential for disease transmission or injury. The *Guide for Care and Use of Laboratory Animals* states that transportation “should be planned to minimize transit time and the risk of zoonosis, protect against environmental extremes, avoid overcrowding, provide food and water when indicated, and protect against physical trauma.” The *AWAR* (§2.38, f) addresses the transit of animals as part of adequate “handling”, which implies that the IACUC must consider transportation of animals. Furthermore, the PHS Policy includes vehicles for transports of animals in its definition of an animal facility.

- II. Purpose
 To establish a policy that will provide guidance to Research Personnel and Animal Care Staff in regards to transport of animals, in order to support high standards for quality of research, animal health and welfare.

- III. General Statement
 Animals will be transported in a manner that prevents injury, discourages observation by the public, and protects the environment of the animal holding system.

- IV. Definitions
 - A. **Transport** is the transfer of animals between rooms in the same facility, between buildings on the same campus, between buildings of different campuses, between different natural field settings, a commercial wildlife animal supplier and the experimental site, or between natural field settings and campus buildings. Buildings can house vivaria or research laboratories approved to be used with live animals.
 - B. **Biosecurity** encompasses all measures developed and implemented to detect, prevent, contain, and eradicate adventitious infections. To exclude those infections, research animals are maintained behind sanitized and disinfected room- to cage-level

barriers provided with filtered air and sanitized supplies and equipment as appropriate for the species protected.

- C. **Conventional Animal Housing Area**, for the sake of this policy, is defined as any animal facility/room/cubicle where animals can leave and return. Although many of the management practices including security access are shared with the ones of the modified barrier housing area the biosecurity level is lower meaning that the risk of introducing an excluded microbial agent is higher.
- D. **Modified Barrier Housing Area**, for the sake of this policy, is defined as any animal facility/room/cubicle where animals can only leave the facility for terminal procedures and never be returned to this area. This provides higher biosecurity and therefore lower risk for introducing any excluded microbial agent.

V. Policy

- A. Transport is usually stressful for animals both laboratory and wildlife species alike. As a result, transporting animals any distance is discouraged if options to diminish such transport are available.
- B. Comparative Medicine (CM) managed facilities are classified as either conventional or modified barrier (biosecurity levels). The purpose of these classifications is to provide different levels of control over infectious disease exclusion, stressors unrelated to research activities, and research project security.
- C. Animals housed in conventional facilities or rooms may not be moved into modified barrier facilities. Animals already housed in modified barrier facilities should only leave the modified barrier for terminal procedures, or if experimental procedures cannot be accomplished in the modified barrier facility. Animals that exit barrier facilities for any reason may not return to barrier facilities/rooms thereafter. Exceptions for special experimental requirements may be granted, however specific justification must be approved by the IACUC and the Director, (CM) and particular safeguards implemented.
- D. It is the responsibility of research as well as animal care staff to know and abide by the proper sequence of entry into rooms and cubicles with differing biosecurity levels. A list of centralized facilities, rooms and cubicles associated with corresponding classification can be found at <http://www.fau.edu/research/comparative-medicine/animal-health-surveillance.php>. In addition, room entrance doors are appropriately labeled.
- E. Transport involving CM managed facilities are approved by the Director, CM based on health status of facility, room(s), and/or animal(s), experimental status of animal (e.g. chronically instrumented, post-operative period) and available space/housing conditions. In circumstances where a requested transport is not approved, the Director, CM will work with the research team to accomplish the goals of the study in a location that is appropriate for the study, and to which transport can be approved.
- F. Transport of animals housed in CM managed facilities should be performed by CM staff unless otherwise described and approved in the relevant IACUC protocol.
- G. Transport of animals between PI managed facilities does not require coordination through CM, however general transport rules still apply. In addition, any transport of animals housed in PI managed facilities must be addressed in the IACUC protocol and/or research lab specific SOP(s) that are approved by the IACUC.
- H. Cages and other appropriate containers used for transport of terrestrial, semi-aquatic and aquatic animals should:
 - a. limit exposure to allergens, waste products, or odors
 - b. provide sufficiently oxygenated air or water
 - c. avoid leakage

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- d. protect from direct sun and disruptive weather conditions such as heat, cold, rain, wind, etc.
- e. safeguard against physical harm and
- f. protect from public view if applicable.
- I. Sufficient Personnel Protective Equipment (PPE) must be worn to assure health and well-being of personnel, and must match the PPE requirements of the most stringent facility being accessed.
- J. If animals used in BSL 2 studies need to be transported Department of Transportation (DOT) regulations have to be followed and the transport container labeled accordingly. Environmental Health & Safety (EH&S) must to be contacted with any related questions.
- K. Transport of animals using private vehicles, departmentally owned vehicles or golf carts must be described in an approved IACUC protocol and inspected by the IACUC during semi-annual inspections. Animals may NOT be transported by bicycle, motorbike, for hire transportation, ride-share transportation, or public transportation, including FAU operated public transportation.
- L. Pedestrian transport by hand carry or cart between facilities on the same FAU campus is allowed, however the manner of transport and the precise route to be taken must be planned in advance in order to insure the best possible route in regards to distance, safety, and security.
- M. Vivarium caging cannot be removed from the animal facility unless specifically authorized by CM; CM provides non-standard caging for on-campus animal transport.
- N. Returned transport cages must be sanitized before reuse either by use of the facility's cage washer, or by a method of sanitation described in the IACUC protocol or in research lab specific SOP(s).
- O. Live animals should not remain outside of approved housing facilities for more than 12 hours unless specifically approved in the IACUC protocol. Animals kept outside an approved housing facility for more than one (1) hour, access to food and water has to be provided unless restriction has been stipulated and approved in the protocol.

VI. Accountability

The Principal Investigator (PI) will be responsible for:

- Assuring that all research personnel understand and follow this policy.
- Communicating with CM staff in a timely manner regarding any transport related issues including requesting transfer of animals and vivarium caging needed.
- Assuring safe transport of animals as described in the IACUC protocol and/or lab specific SOP(s) and approved by the IACUC and Director, CM.

The IACUC will be responsible for:

- Reviewing IACUC protocols and/or amendments requesting transport of animals by research staff, and rendering a decision to either approve, require modification(s) in order to secure approval, or withhold approval.
- Reviewing and approving research lab specific SOP(s) in regards to animal transport.
- Inspecting departmental- or private-owned vehicles and golf carts intended for animal transport.

The Research Integrity office will be responsible for:

- Administrative support of the IACUC members to facilitate their regulatory function.
- Maintaining policy and assure regular review and update as necessary by the IACUC.
- Communicating with the research lab and scheduling inspection of transport vehicles and/or golf carts.
- Scheduling regular review of research lab specific SOP(s) by the IACUC.

The Office of Comparative Medicine (CM) will be responsible for:

- Transporting animals within an animal facility and between buildings/campuses as per PI request following this policy and CM internal SOP(s).
- Providing guidance to PIs in regards to appropriate transport of animals.
- A CM veterinarian reviewing protocols and research lab specific SOPs relating to transport of animals. Reviewing requests for and approving removal and return of research animals to vivaria if appropriate.

VII. Procedures

- A. Transport of animals housed in centralized vivaria should be transported by CM staff unless specifically approved in the IACUC protocol. It has to be requested through the CM database (VSATS) in as much as possible in advance, but no less than 24 hours prior to the anticipated need of the animals. Allow extra time if the transport will have to occur during a holiday week or on a Monday. CM personnel has to follow relevant SOP(s) endorsed by the IACUC.
- B. Procedures for transport of animals in PI managed satellite facilities or self-transport by research laboratories have to be followed as described in the respective IACUC protocol, approved research lab specific SOP and/or this policy.
- C. Options for caging during transport differs between species and has to meet the needs of the animals whether they are terrestrial, semi-aquatic or aquatic species. Transportation includes either pedestrian transport or transport in departmentally- or privately-owned vehicles/golf carts approved by the IACUC.
- D. Hand-carry or cart-transport (pedestrian transport) across campus:
 - a. While normal space requirements (The Guide; Table 3.2; Pg. 57) are desirable at all times, short-term pedestrian transport may be performed with non-standard caging systems (e.g. 'shopping bags,' 'chicken buckets').
 - b. Do not remove vivarium caging from the vivarium unless needed for housing in the research lab and has been arranged with CM staff; CM provides non-standard caging for on-campus animal transport.
 - c. Non-standard containers for rodents:
 - i. Small containers (e.g. 'chow-mein' boxes) should carry no more than one or two mice or should not be used for animals of larger species. For short distances (e.g. across the street)
 - ii. Medium containers (e.g. 'chicken buckets') should carry no more than five mice or one rat. Mice must be socially compatible (i.e. from the same cage). Use of non-standard caging is for transport only. It is not intended for keeping animals for more than a short period of time.
 - iii. Larger containers (e.g. commercial transport cages) will abide by the space requirements noted in The Guide.
 - iv. Any container used to transport rodents should be either covered by blue paper or a clean sheet available in the vivarium or placed in 'shopping bags' as a secondary means of protection. The number of

containers that can fit into each shopping bag depends on the size of the bag. The container should be solid, leak proof container, and have openings to allow air exchange.

- d. Non-standard containers for aquatic species:
 - i. Use oxygenated water with an oxygen cap in a sealed bag.
 - ii. A source of additional oxygen might be necessary depending on the length of transport and density of animals in the container.
 - iii. Seal the first bag inside of a Styrofoam (or similar) container for transport. This protects the fish from sunlight, viewing, and rapid environmental changes, which can injure the animals.
 - iv. Use ice packs in the secondary container if necessary.
- e. Animals must be secure during transport and protected from the environment (e.g. sunlight, car lights, or visual observation) by use of opaque bags or boxes, opaque fabric or other opaque covering.
- f. Transport caging must not be left unattended in a hallway or out-of-doors.
- g. The use of a 'bungee-cord' or secure rubber bands is recommended. DO NOT use tape on a polycarbonate housing cage.
- h. While use of a cart may be permitted if approved by the IACUC, it is discouraged since vibrations of the wheels are readily transferred to the animal cages. This increases animal stress significantly and may also critically affect research results. Hand carrying bags containing animal cages is the best choice for their health and comfort.
NOTE: Non-standard transport caging must not be used for housing, regardless of whether food and water is provided.
- i. If a cage or container spills feed, bedding, water or animals during transport, the individual responsible will secure the animals, clean the area as best as possible, and then continue to their destination. A report of the spill, and or loss of any animal, must be provided to the IACUC and CM. Use of a shopping bag or tank as a secondary container can reduce the risk of this type of adverse event.

- E. Transportation in an approved departmentally- or privately-owned vehicle:
Transportation in non-CM vehicles must have prior approval by the IACUC. Contact the IACUC at resesarchintegrity@fau.edu to arrange an inspection time and date.

Requirements for approval:

- a. The transportation activity is listed on the protocol or an amendment to the protocol.
- b. Adequate heating / cooling is available to maintain general animal comfort.
- c. Protection from direct sun.
- d. Protection from public view.
- e. Method to contain waste (e.g. plastic sheet under the cage, container around animal cage, etc.)
- f. Method to discourage allergens from contaminating the vehicle, since allergens may impact future human riders (container around animal cage, etc.)
- g. Method to secure the cage inside of the vehicle (e.g. bungee cords)

VIII. Policy Renewal Date
6/07/2022

IX. References

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1. Castelhanao-Carlos MJ, Baumans V. The impact of light, noise, cage cleaning and in-house transport on welfare and stress of laboratory rats. 2009. *Laboratory Animals*; **43**:311-327.
2. *The Guide for the Care & Use of Laboratory Animals*; 8th Edition. NRC
3. *Guidelines for the Use of Fishes in Research*, American Fisheries Society, 2014
4. *2016 Guidelines of the American Society of Mammalogists for the Use of Wild Mammals in Research and Education*
5. *Guidelines for Use of Live Amphibians and Reptiles in Field Research*, ASIH, 2001
6. *Guidelines to the Use of Wild Birds in Research*, 3rd edition, 2010

POLICY APPROVAL

Initiating Authority

Signature: _____

Date: _____

Name: Daniel C. Flynn, Ph.D., Vice President for Research

Executed signature pages are available in the Initiating Authority Office(s)