Policy for Transporting and Handling Rodents in the Imaging Facilities (Hansen and Bindley Buildings)

The Small Animal Imaging Facility located in the Hansen Building and the Purdue MRI Facility is located in the Bindley Building. Both are available for use by all investigative staff on campus, after staff has met the requirements for use. The goal is to allow investigative staff to complete research while at the same time wanting to ensure the biosecurity of the rodent colonies on campus. Animal facilities/rooms on campus have different biosecurity/health designations based on the positive or negative serological status of the facility/room. As rodents of different serological status could be imaged using the Imaging Facility equipment, the Imaging Facility is considered “dirty”. As a result, unless arrangements are made in advance and the investigator understands the potential health impact to their colony, all rodents entering the imaging facility cannot be returned to their original animal room and must be taken to a designated post-imaging animal room to prevent the potential spread of disease on campus.

Equipment Available in Room B032 Hansen Building:

The IVIS Lumina and SPECT/CT imaging equipment is available for investigative staff to utilize to complete research projects.

Equipment Available in Room B081 Bindley Building:

The 7T MRI is available for investigative staff to utilize to complete research projects.

Prior to Studies Being Conducted:

1. Imaging using the above devices must be described in the investigator’s approved protocol.

2. Biosecurity Training for Hansen: Training is scheduled with Mary Larimore at 765-494-8243 or larimorm@purdue.edu to ensure staff is properly trained on handling cages in the transfer station to minimize risk of animal exposure.

3. Biosecurity Training for Bindley: Training is scheduled with Sylvia Schlegel at 765-494-2120 or sschlege@purdue.edu to ensure staff is properly trained on handling cages in the transfer station and understanding the cubicles and rack systems in the housing room.

4. Staff utilizing the Hansen imaging equipment must be trained in advance. Contact Aaron Taylor (Director, Bioscience Imaging Facility) at abtaylor@purdue.edu or at 765-496-3148 for training.

5. Staff utilizing the Bindley MRI must be trained in advance. Contact Greg Tamer at gtamer@purdue.edu for training.

6. Prior to each imaging request requiring new animals be housed in the imaging housing room, an Application to Transfer Animals to the Imaging Facilities must be filled out and turned in 3 business
days before the requested imaging time. Ensure you have met protocol and training requirements or this can delay your approval for the imaging time and space in the housing room.

Note: Any animals exposed to infectious agents require a consultation with Radiological and Environmental Management (REM) and Laboratory Animal Program (LAP) prior to starting imaging project to determine appropriate handling and transport procedures.

In the HOME/Original Animal Room:

- All Animals must be transported in micro isolator cages or shipping crates obtained from LAP.
- Both clean cage set ups and shipping crates should be requested 1-2 business days in advance of the imaging day so they can be prepared and left in the room for staff to utilize.
- If one (1) to two (2) cages are to be moved over:
  - Animals are to be transferred to a clean micro isolator cage for transport.
  - A rubber band is placed around each cage to ensure the lid is secure in transit.
  - Cages are placed into an opaque bag and the top covered
  - One hand must remain free in order to open doors during the walk over so each person may only carry 1 bag.
- If more than two (2) cages are to be moved:
  - Animals are to be transferred to a clean micro isolator cage for transport.
  - A rubber band is placed around the cage to keep the lid in place during transport and placed into the dedicated Imaging Transfer Cart if going to Hansen.
  - The top of the cart is to be covered for transport.
  - If more than 2 cages are being moved to Bindley, please contact CMAFSupervisors@purdue.edu to facilitate the Centrally Managed Animal Facilities (CMAF) to move the cages for you.
- If animals are coming from a distance from the imaging center:
  - Arrangements can be made to have CMAF move the cages to be imaged from their Home Facility to Biology 145 or Bindley B087. From there, the investigative staff can follow the above instructions for moving the cages to Hansen and back for imaging or down the hall to the MRI in Bindley. Please contact CMAFSupervisors@purdue.edu for assistance.
  - If personal vehicles need to be used, the PACUC Animal Transport Guidelines should be followed (http://www.purdue.edu/research/vpr/rschadmin/rschoversight/animals/policies.php).

On Arrival to Imaging Suite:

- Animals must be brought directly to Imaging room or imaging housing. Animals for imaging may only go to the imaging suite and the associated housing – they may not enter the main housing area near the imaging centers. They may not be left anywhere else in the facilities prior to or after imaging.
- All animal handling must be done in the designated animal transfer station
  - The inside of the animal transfer station should be sprayed with 10% household bleach and wiped down.
  - The animal transfer station is turned on.
  - Spray the outside of the cage with 10% household bleach to cover but not saturate the cage and filter top.
  - The cage is placed into the animal transfer station.
  - Any supplies (i.e., mouse restrainers or bed) are gathered.
Spray and wipe the mouse restrainer/bed to be used for the imaging with 10% household bleach.  
Open the cage and set the filter top with the outer side of the lid touching the work surface.  
Place the wire lid on top of the filter top.  
Place the animal in the restrainer as trained

- When the imaging is completed, the animal is returned to the cage and the cage is closed.  
- The cage is to be sprayed with 10% household bleach prior to being placed into the transport container  
- The imaging restrainer/bed is cleaned with 10% household bleach and returned to the storage area.  
- The transfer station is cleaned with 10% household bleach.

Upon Exiting Imaging Suite:

- All traffic exiting the imaging suite must leave directly or go to the dedicated housing. Staff are no longer considered clean enough to enter any of the animal facilities to prevent cross contamination.  
- All animals, regardless of where they came from, having entered the imaging facility must be housed in either Room 145 in the Life Science Annex (LSA) Building (Biology Floor) or B087 if using the MRI in Bindley. Animals are NOT to be returned to the original/HOME animal room. This is to prevent possible original/HOME room contamination subsequent to being used in the Imaging Facility.  
  - For those animals deemed radioactive post scanning, they are to be held in the Imaging area for 24-48 hours.  
    - The Director of the Bioscience Imaging Facility will scan the cages and when the reading is below 2mR/hr, the animals will be placed in a clean cage and tagged for relocation by LAP.  
    - LAP will check the cages present in the room daily to ensure adequate feed, water and cage conditions and will relocate any cages no longer designated as “hot” to Room 145 in the LSA Building (Biology Floor).  
  - For animals not considered radioactive, the investigator is to transport or arrange transport for the animals to the dedicated imaging housing area in LSA.  
- Housing space for species other than mice must be coordinated ahead of time to arrange a room.  
- A note card with the proposed end of study date is to be placed on the cages when housed in the imaging housing room.  
- If cages are found to be present after this proposed date, animal facility staff will contact the PI to obtain status.  Space in this room is limited and studies should be planned and schedules maintained accordingly.  
- If animals need to remain in the imaging housing room longer than anticipated due to study reasons, the animal facility staff should be contacted to discuss arrangements for space.

Note: CMAF Technicians work 6 AM to 2:30 PM so all requests for pick up and drop off must be during these working hours. If you have a pick up or drop off that MUST be outside these times, please contact Sylvia Schlegel at sschlege@purdue.edu.

Note: Temperature extremes need to be avoided when walking animals between buildings. Special precautions to protect animals from heat or cold stress or postponements are required when temperatures are below 45° or above 85° Fahrenheit. Inclement weather (e.g., rain) may also necessitate postponement dependent upon the planned mode (e.g., foot vs. controlled climate vehicle) and distance of transport.