

- 3.0 **PURPOSE:** Provide procedures that will allow rodents from UB and RPCI to undergo MRI or PETscan imaging at either Roswell Park (DLAR) or UB (CMLAF) and if required, return to their original institutions without risking contamination or spread of potential pathogens.
- 4.0 **SCOPE:** Principal Investigators at both facilities involved with imaging of animals as a part of their protocol.
- 5.0 **PROCEDURE:**
- 5.1 **Scheduling:**
- 5.1.1 PIs will contact either the MRI Imaging Facility at RPCI (Refer to online MRI Imaging Facility form <http://www.roswellpark.org/mri/>), or PETscan Facility at UB (Refer to online <http://www.research.buffalo.edu/laf/resources/sop/4.a.8.cfm>) to determine the availability of the imaging equipment.
- 5.1.2 PIs at each facility must provide a completed “Request to Transfer Animals for Imaging” form to the proper personnel at their institute: Facility Manager at CMLAF, or Veterinary Services at DLAR.
- 5.2 **Approval for Transfer:**
- 5.2.1 Import/Export Coordinator/Veterinarian will provide current health reports to the receiving institution for veterinary review and approval. Any positive tests for pathogens anywhere in the institution will be made known to the receiving institution.
- 5.2.1.1 CMLAF animals to be transferred to RPCI for MRI imaging:
- 5.2.1.1.1 Housed at UB (i.e. existing breeding colony), A negative full comprehensive health screening within 3 months will be required. If not available, a new screening will be conducted at the cost to the PI.
- 5.2.1.1.2 Ordered from approved commercial suppliers with SPF status, and housed at CMLAF for less than 3 months specifically for the purpose of MRI imaging at RPCIC. A negative full comprehensive health screening within 6 months will be required from commercial supplier.
- 5.2.1.2 RPCI DLAR Animals to be transferred to UB for PETscan imaging:
- 5.2.1.2.1 Housed at DLAR (e.g. existing colony), A negative full comprehensive health screening within 6 months will be required. If not

available, a new screening will be conducted at the cost to the PI.

- 5.2.1.2.2 Ordered from approved commercial suppliers with SPF status, and housed at RPCI for less than 3 months specifically for the purpose of PETscan imaging at UB, A negative full comprehensive health screening within 6 months will be required from commercial supplier.
- 5.2.2 Import/Export Coordinator/Manager will ensure current “Protocol Assurance” form on file.
- 5.2.3 Once transfer approved by Veterinarian, the Import/Export Coordinator/Manager will arrange for transportation, and confirm the date of arrival with the Imaging Center.
- 5.2.4 Upon completion of imaging, the Import/Export Coordinator/Manager will arrange return transportation, if required.

5.3 **Animal Housing/Husbandry Prior to Transfer:**

5.3.1 CMLAF animals:

5.3.1.1 Animals already housed at UB (e.g. existing breeding colony)

5.3.1.1.1 Animals will be transferred to a dedicated room, and housed in sterile microisolator cages, with autoclaved food, water, and bedding.

5.3.1.1.2 Dedicated rooms will be tended to first in order of the day by caretaking staff. Gowns, gloves, hair covers, and shoe covers will be worn by all personnel entering these rooms. All husbandry and animal handling will be completed within a Biological Safety Cabinet (BSC).

5.3.1.2 Animals ordered from approved commercial suppliers with SPF status, specifically for the purpose of MRI imaging at RPCIC.

5.3.1.2.1 Animals will be transferred to a dedicated room, and housed in sterile microisolator cages, with autoclaved food, water, and bedding.

5.3.1.2.2 Dedicated rooms will be tended to first in order of the day by caretaking staff. Gowns, gloves, hair covers, and shoe covers will be worn by all personnel entering these rooms. All husbandry and animal handling will be completed within a BSC.

5.3.2 RPCIC DLAR Animals:

5.3.2.1 Animals will be housed in DLAR barrier facility in sterilized microisolator caging, with autoclaved food, water, and bedding.

5.3.2.2 Gowns, gloves, hair covers, and shoe covers will be worn by all personnel entering these rooms. All husbandry and animal handling will be completed within a BSC.

5.4 **Transportation:**

- 5.4.1 CMLAF Animals being transferred to RPCIC for MRI imaging:
 - 5.4.1.1 Animals will be transported in sterile shipping containers with autoclaved food, bedding and sterile gel-packs.
 - 5.4.1.2 Rodents will be placed in the shipping containers within a BSC in the animal holding rooms and are transported via the DLAR or CMLAF dedicated van.
 - 5.4.1.3 Upon arrival, the outside of the Shipping Container is wiped down with an approved disinfectant.
 - 5.4.1.4 Animals are removed within a BSC and placed directly into new cages, within their new dedicated rooms.
- 5.4.2 DLAR Animals being transferred to UB for PETscan imaging:
 - 5.4.2.1 Animals will be transported in sterile shipping containers with autoclaved bedding.
 - 5.4.2.2 Rodents are placed in the shipping containers within a BSC.
 - 5.4.2.3 Upon arrival, the outside of the shipping container is to be sprayed with an approved disinfectant.
 - 5.4.2.4 Animals are removed from shipping container within a BSC and placed directly into sterile microisolator cages in their dedicated rooms.

5.5 **Housing/Husbandry of Animals while at Imaging Facility:**

- 5.5.1 At RPCI MRI imaging center, UB mice and rats are housed in dedicated rooms.
 - 5.5.1.1 Mice will be housed in CCC158 and rats housed in CCC161.
 - 5.5.1.2 Animals will be housed in sterile microisolator cages with autoclaved food, water, and bedding, on ventilated racks and changed within a BSC.
- 5.5.2 At UB PETscan imaging center, DLAR animals will be housed in a dedicated room in the BEB 203C, under positive pressure.
 - 5.5.2.1 Animals will be housed in sterile microisolator cages with autoclaved food, water, and bedding, on ventilated racks and changed within a BSC.
 - 5.5.2.2 Personnel will enter 1st in the day and use personal protective clothing as described in section 5.3.1.1

5.6 **Imaging:**

- 5.6.1 On the day of imaging, the animals will be taken in their cages to the MRI Lab. Under a BSC the animal will be prepared for imaging and anesthetized. A dedicated induction chamber will be used for UB animals for the anesthesia induction.
- 5.6.2 The animal will be transported in this induction chamber to the MRI/PETscan area where the cage will be wiped down with an approved disinfectant.
- 5.6.3 The cage will be opened, the animal removed and placed into the appropriate cylindrical holding device within the Imaging

equipment, and positioned properly for the scan by the imaging technician.

- 5.6.4 The cylindrical holding device will be dedicated to either UB or Roswell animals to prevent cross contamination.
- 5.6.5 Cylinders and induction chambers are clearly labeled, cleaned, and stored separately
- 5.6.6 Imaging technicians will don protective gown & gloves when positioning animals, but then discard them prior to operating equipment. Gowns and gloves are changed between sources of animals.
- 5.6.7 At completion of image, the imaging technician donning gloves and gown will place animals into the induction chamber and take to the MRI Lab. Within the BSC the animal is transferred into the microisolator cage and allowed to recover from anesthesia.
- 5.6.8 The microisolator cage is returned to the dedicated animal holding room.

5.7 **Animal Return to Originating Facility:**

- 5.7.1 After completion of the imaging, rodents are to either remain in their dedicated holding room until completion of the study (i.e. euthanasia), or
- 5.7.2 If animals must return to their original facility for further imaging, they will be restricted to the dedicated holding room assigned as described in section 5.5
- 5.7.3 Animals will be transported as described in section 5.4
- 5.7.4 Animals will not be re-admitted back into the source population
- 5.7.5 DLAR animals returning to RPCI after PETscans at UB will be housed outside of the DLAR barrier facility within the CCC.

6.0 **Attachments:**

- 6.1 SOP Distribution Receipt Form
- 6.2 Request for Animal Transfer for Imaging Form
- 6.3 Service Request Form from Imaging facilities (Found on-line)

