Standard Operation Procedure for Animal Procedures Conducted in UNC-CH BRIC Small Animal Facility (SAI) (Includes UNC-CH and non-UNC-CH Animals and Procedures such as Imaging and Irradiation)

Effective date: Nov 1st, 2008
Update date: February 5, 2010

I. Purpose: This SOP provides the BRIC-Small Animal Facility (SAI) staff with general guidelines on conducting animal procedures at the BRIC- SAI facility on UNC-CH and non-UNC animals sent from outside institutes.

II. Responsibilities and Scope:

1. The non-UNC animals discussed here are animals that are coming from non-approved sources - i.e. non vendors such as universities, pharmaceutical/ biotech companies, etc. For animals coming directly from approved vendors, the process would be different and much simpler (See SOP: Guidelines for Animal PET/CT Imaging Studies).

2. It is the responsibility of the sending institution to provide animal transport. Transport vehicles must be dedicated for animal transport and be climate controlled.

3. It is the responsibility of the SAI facility staff to prepare the labs and environment to receive the animals and minimize any possible cross contaminations between UNC-CH and non-UNC-CH animals.

4. It is the responsibility of the SAI facility to provide the Institutional Animal Care and Use Committee (IACUC) with an electronic copy of the non-UNC approved Animal Care and Use Application.

5. It is the responsibility of the SAI to provide the Institutional Animal Care and Use Committee (IACUC) with an electronic copy of the UNC approved Animal Care and Use Application or amendment describing the procedure prior to providing services.

III. General Procedures:

1. Prior to imaging non-UNC animals sent from outside institutes the following package must be submitted to and approved by the IACUC: an amendment to the appropriate SAI application (or a full application if necessary); the name of the institution from which animals will be received; the institution’s current AAALAC International accreditation status; the
institution’s Animal Welfare Assurance number (for NIH funded projects); the name of the collaborating investigator(s); the identification number(s) of the non-UNC Animal Care and Use Application; an electronic copy of the non-UNC institution’s approved Animal Care and Use Application; brief details regarding transport to UNC and the particular procedures to be performed at UNC; a completed Standard Operating Procedure for Animal Procedures Conducted in Core Facilities.

2. An UNC-IACUC approved animal protocol must be available for all the animal procedures involved in the study. PI and persons responsible for the animal care must be clarified to IACUC before the imaging study.

3. Prior to imaging studies for non-UNC animals sent from outside institutes, the SAI facility staff must file a form of “IMPORTING ANIMALS FROM OTHER INSTITUTIONS” (See Appendix) to UNC DLAM, IACUC and EHS.

4. The sending institute must make a current health monitoring report available to UNC DLAM. The report must reflect the status of the sending institution’s animal colony within the past four months.

5. PET Lab and other labs within 121 Suite (SAI facility) need to be cleaned and prepared for receiving the animals. The goal is to make the lab/room as empty and protective as it can be, and leave only necessary materials and equipment exposed in the room, get all other non-cleanable materials, such as paper, fiber, card box, fabric covered chairs, or any unnecessary tools removed from the room. The computer and keyboard in the PET lab need to be bagged or covered by plastic sheets to protect any potential contamination. DLAM Facilities Director, Randy Allen, will examine the room prior to imaging studies.

6. Imaging studies on non-UNC animals sent from outside institute are recommended to be only scheduled on Friday. Studies on consecutive days from any other date, such as Wednesday or Thursday to Friday is possible if no other imaging studies on UNC animals will be conducted during that whole time frame. Whenever there is any imaging study for non-UNC animals, the PET lab, as well as all the labs within Suite 121 (MRI and SPECT labs) need to be booked whole time so that there will be only animals from non-UNC institute contained in the facility, and no UNC animals are kept there.

7. Prior to the transportation, animals need to be placed in clean cages with sterilized filter cage covers. Once animals are transported into UNC campus and arrive at the loading deck, animal cages need to be put into a plastic bag before unloaded from transportation vehicle, and are carried from loading deck to the PET lab.

8. Before entering PET lab, everyone needs to wear personal protection gears, including masks, gloves, disposable lab coats, bonnets and shoe covers
(provided in front of the PET lab). Anyone steps out or enters into the PET room needs to get the protection gears changed.

9. Once animals are placed inside the PET lab, the door needs to be always closed to minimize air exchange between the PET lab and other lab spaces.

10. For isoflurane anesthesia, a dedicated hose and nose-cone must be made only for non-UNC animal usage. Anything having contacted with animals during the study must be cleaned immediately after the study using approved decontamination chemicals provided by UNC DLAM.

11. Once the study is finished, the SAI staffs need to inform UNC DLAM to clean the whole facility thoroughly, including mopping the floor, cleaning all the exposed surfaces, and discarding wastes to a dedicated trash can, which will be also cleaned with approved decontamination chemicals.

12. Animal carcass following PET imaging will be doubled bagged and placed in an approved freezer for radioactive material to let decay fully over the weekend. The SAI facility staff will inform DLAM staff on Monday to make a dedicated trip to pick up the carcass.

IV. Health and Safety Precautions:

BIOSAFETY LEVELS:

Animal Biosafety Level 1 (ABSL1)

Animal Biosafety Level 1 is suitable for work involving well characterized agents that are not known to cause disease in immunocompetent adult humans, and present minimal potential hazard to personnel and the environment. Work is typically conducted on the open bench top using standard microbiological practices including proper personal protective equipment (gloves and lab coat or gown) and appropriate disinfectant for decontamination.

Animal Biosafety Level 2 (ABSL 2)

Prior to beginning a study animal protocols must be reviewed and approved by the UNC Institutional Biosafety Committee.

Animal Biosafety Level 2 is suitable for work involving laboratory animals infected with agents associated with human disease and pose moderate hazards to personnel and the environment. It also addresses hazards from ingestion as well as from percutaneous and mucous membrane exposure. Personnel utilizing a UNC-CH core facility should have training in handling the specific pathogenic agent they are using. In addition, the core facility staff should have knowledge and documentation of all agents that are being used in the facility. Access to the core facility will be restricted when work is being conducted. Procedures utilized in the core facility that may result in infectious aerosols or splashes should be
conducted in a Biological Safety Cabinet (BSC) or other physical containment equipment. Personal protective equipment including gloves and lab coats or gowns should be worn while working with hazardous materials. These general procedures should be followed if operating at this level in addition to the following:

1. A sign incorporating the universal biohazard symbol must be posted at the entrance to areas where infectious materials and/or animals are housed or are manipulated when infectious agents are present. The sign must include the animal biosafety level, general occupational health requirements, personal protective equipment requirements, the principal investigator’s name (or other responsible personnel), telephone number, and required procedures for entering and exiting the animal areas. In a core facility where multiple infectious agents might be used, the use of a precaution sign is of utmost importance. The sign should have specific information for the research that is being performed at that time in the facility. Each researcher that utilizes a core facility must ensure that the sign is in place prior to starting any work inside the facility. A BSL2 entrance sign template is available at http://ehs.unc.edu/ehs/docs/biohazardsign.pdf

2. All sharp objects such as hypodermic needles, scalpel blades and contaminated broken glass must be disposed of in an approved sharps bin (1 gallon metal can) posted with a hazardous material label. Used needles must not be recapped after use. The needle syringe assembly should be placed promptly in a sharps bin for disposal. Do not leave uncapped needles or sharps on surfaces.

3. Personal protective equipment (PPE) requirements include safety glasses or goggles, lab coat and gloves.

4. Persons must wash their hands after removing gloves, and before leaving the areas where infectious materials and/or animals are housed or are manipulated.

5. Decontamination of core facility work surfaces and equipment is essential. Disinfectant should be appropriate to the biological agent that was used by the researcher. Spills involving infectious material must be contained, decontaminated, cleaned up immediately and the core facility staff should be notified. Incidents that may result in a potential exposure to infectious materials must be immediately evaluated and treated at the University Employee Occupational Clinic between the hours of 8:30am-4:30pm. Personnel should contact their supervisor and also inform the core facility staff of incident.
Animal Biosafety Level 3 (ABSL3)

Animal Biosafety Level 3 is not allowed in UNC-CH core facilities.

RADIATION:

In general, the core facilities themselves are not licensed for radioactive materials. All radioactive materials must be used under a licensed Authorized User (a Principal Investigator with a Radiation Source License issued by EHS). Anyone using radioactive materials in a core facility must follow all license conditions as listed on the Principal Investigator's license. If a core facility utilizes radiation producing machines, the machine must be registered with EHS.

All personnel using radioactive materials or radiation producing devices must have appropriate radiation safety training and follow policies and procedures in the appropriate radiation safety manual (i.e. Materials, Irradiators, X-ray devices and Cabinet X-rays).
IMPORTING ANIMALS FROM OTHER INSTITUTIONS

UNC – Chapel Hill, Division of Laboratory Animal Medicine
Contact Pam Revels: Phone# 919-966-0711 pamela_revels@med.unc.edu

INFORMATION FOR INVESTIGATOR RECEIVING ANIMALS

Investigator Name ___________________________ IACUC Protocol# ___________________________

Investigator Signature ___________________________ Account # per Animal Import costs ___________________________

Investigator Phone#: ___________________________ Account# per Animal Housing cost ___________________________

Investigator Email: ___________________________ Contact Person: ___________________________

Contact Person: ___________________________ Date of Request: ___________________________

Contact Email: ___________________________ Contact Phone #: ___________________________

Send Confirmation to Fax#: ___________________________

* Your signature indicates that you are responsible for the use of these animals, as well as purchasing and housing costs.

SENDING INSTITUTION INFORMATION

Sending Institution: ___________________________

Name of Investigator Shipping Mice: ___________________________

Name of Contact for Investigator: ___________________________

Contact Phone#: ___________________________ Contact Fax#: ___________________________

Contact Email: ___________________________

Request Delivery Date: ___________________________

Strain: ___________________________ Species: ___________________________

Sex: __________ Quantity: ___________________________ Age: ___________________________

Weight: ___________________________

Immune Status: ___________________________

T-cell deficient ___________________________

B-cell deficient ___________________________

Other (please specify) ___________________________

Injected or treated with (please circle and specify in space below):

Vector Human Tumor Cells Cytotoxic Compounds Other ___________________________

Animals Housed at (circle one): ABSL1 ABSL2* ABSLS3

* Prior to beginning a study animal protocols must be reviewed and approved by the UNC Institutional Biosafety Committee.

Fax to 919-843-2299 or deliver to Room 1121 Thurston Bowles Building