

**University of Pennsylvania-Radiology
Small Animal Imaging Facility Steering Committee
Standard Operating Procedure**

Title: General Guideline for the Proper Usage of the Refrigerators and Freezers at the Small Animal Imaging Facility

SOP Number: 5.01

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Approval: _____
Co-Director

Co-Director

I. **Purpose:** This standard operating procedure describes the general guidelines for the monitoring, cleaning, preventive maintenance, and proper usage of the refrigerators and freezers at the Small Animal Imaging Facility (SAIF).

II. **Responsibilities and Scope:** All principal investigators (PIs) are responsible for being familiar with this policy and assuring that their staff/ technicians adhere to it when they use the refrigerators and freezers at the SAIF. In addition, the PIs and the personnel of any project that uses the refrigerators/ freezers at the SAIF are responsible for reading and following this SOP. This procedure applies to all refrigerators and freezers located at the SAIF.

III. **Definitions:**
None

IV. **Procedures:**

A. **Cleaning:**

1. **In the event of a spill at the refrigerators and freezers:** The person who caused the spill must immediately contact the SAIF management team. He or she is then responsible for cleaning the affected areas under the supervision of the SAIF management team. In the case of an unreported spill, the SAIF management team will clean up the spill but the PIs of the persons responsible for the spill will receive a written notification of SOP violation (refer to SOP #6.01)

2. **Refrigerators:** The refrigerators will be cleaned every 6 months, or earlier in the event of a spill. To clean refrigerators, wipe the area with detergent/disinfectant or a 1:10 dilution of bleach. Wipe with water then with 70% Alcohol, to prevent corrosion. Discard all absorbent material, towels, and gloves in the biohazard waste container.

3. **-10 to -20°C Freezer:** The freezers will be cleaned every 6 months, or earlier in the event of a spill. To clean freezers, defrost the freezer for up to 2-3 hours and disinfect areas if samples have been contaminated. Wipe the area with detergent/disinfectant or a 1:10 dilution of bleach. Wipe with water then 70% Alcohol, to prevent corrosion. Discard all absorbent material, towels, and gloves in the biohazard waste container. Restart the -10 to 20°C freezer.

B. Storage of materials in any refrigerators and freezers at SAIF:

1. Storing food and beverages for human consumption is not permitted in any of the refrigerators and freezers at the SAIF.
2. All stored materials must be individually labeled with the PI's name and phone number, storage start date, and expected storage end date. PIs and their researchers are also responsible for putting their information on the refrigerator-freezer log-in sheet that is placed in front of the refrigerator.
3. The refrigerator and freezer at the MRI facility in the Founders Basement will be locked. Researchers may request for the key from the SAIF management team at the MRI/MRS Imaging Core.
4. Researchers are responsible for updating the log sheets and discarding expired material in a timely manner.
5. Failure to log the required information on the log sheets in a timely manner can be cited as a violation (refer to SOP #6.01).
6. The contents of the refrigerator and freezer will be compared with the log sheets on a regular basis.
7. Anything in the refrigerator/ freezer that is not properly labeled or listed in the log will be discarded by the SAIF management team.

C. Storage of carcasses (including tissue samples) at the SAIF freezers:

1. MRI/MRS Imaging Core in the Founders Basement:
 - a. Long term storage of animal carcasses and tissue samples in the refrigerator and freezer at the MRI facility in the Founders Basement is prohibited (refer to SOP #3.03). However, animal carcasses and tissue samples can be stored in the freezer to fulfill approved research purposes (the maximum storage time is 3 months).
 - b. After putting animal carcasses and tissue samples into the proper bag, each bag must be labeled with the PI's name, phone number, storage start date, and expected storage end date. Researchers are also responsible for putting the required information on the refrigerator-freezer log sheet.
 - c. Researchers are responsible for discarding carcasses from the SAIF freezers. If researchers need to store the carcasses for more than 3 months, they must give written notification with a short description of the reason to the Director of the SAIF animal

research (Intae Lee, email: leeint@uphs.upenn.edu, cc: Steve Pickup, email: pickup@mail.med.upenn.edu).

- d. Place the carcasses in a leak proof bag and return the carcasses to the cold room in the Penn animal facilities (refer to SOP #3.03).
2. PET, SPECT, CT, and Nuclear Medicine Imaging Core in 5th Richards:
- a. Long term storage of animal carcasses and tissue samples in the refrigerators and freezers at the PET, SPECT, CT, and Nuclear Medicine Imaging Core in the 5th Richards is prohibited.
 - b. The refrigerator in the mouse (cold) room is for the ULAR personnel who need short term (less than 24 hrs) storage space for dead mice before proper disposal.
 - c. The refrigerator at the radioactive (hot) room is for the researchers who need to store radioactive animals that have died. Researchers should report the incident to the SAIF management team at Richards (Richard Freifelder, email: freifeld@uphs.upenn.edu).
 - d. When the radioactive animal carcasses are cleared for removal, place the carcasses in a leak proof bag and return the carcasses to the animal facility's cold room in the Penn animal facilities (refer to SOP #3.03).

V. Directions: None

VI. Safety Considerations:

- A. When researchers remove animal carcasses from the SAIF, they must place the animal carcasses in a leak proof bag. Researchers should wear "double" gloves during this procedure.
- B. Researchers should not deal with formalin in a close environment.

VII. References:

- A. SOP #3-03. "Waste & Carcass Disposal Policy"
- B. SOP #6.01. "Operational Deficiencies and Repeat Violations"

VIII. Attachments:

- A. Form-SAIF-Radiology-#5. "Refrigerator-Freezer Log Sheet"

X. Document History:

Version Number	Effective Date	Author	Reason
1	June 8, 2006	I. Lee	New