

Guidelines for Use of Animal Imaging Core Resources

University of Pittsburgh Rangos Research Center Animal Imaging Core 4th Floor Rangos Research Center

The University of Pittsburgh Animal Imaging Core Facility based at Rangos Research Center 4th floor Animal Facility (herein referred to as “Rangos Animal Imaging Core”) is a research resource to support the needs of investigators for various *in vivo* organ/tissue imaging and image-guided interventions. The Animal Imaging Core has:

- 7-Teslar micro-MRI system (Bruker, BioSpin 70/30): Rodent to Rabbit
- Micro-CT/PET/SPECT system (Siemens, Inveon): Rodent
- Ultrasound imaging system (Philips, HD11XE): Rodent to large animal (Non-human primate, pig, dog)
- High-resolution ultrasound imaging / micro-injection system (Visual Sonics, Vevo 770): Rodent (embryo/ fetus to adult)
- Bioluminescence system (Xenogen, IVIS Lumina): Rodent.

The Rangos Animal Imaging Core provides the following services:

- (a) Consultation for various design and implementation of *in vivo* organ/tissue imaging and image-guided interventions as part of investigator-initiated research grants or of inter-/intra-institutional program grants.
- (b) Support investigators in image acquisition and image-guided interventions.
- (c) Assist image process and data analysis
- (d) Maintain instruments and provide standard supplies for the imaging.

Fee structure:

- (a) Project Consultation: To be determined by mutual agreement.
- (b) Rates for all other services are available by email (Yijen.Wu@chp.edu) or by telephone (412-692-9902).

Requirements prior to use of Rangos Animal Imaging Core:

If an Investigator plans *in vivo* imaging (live animal) experimentation, it is the Investigator’s responsibility to have an approved University IACUC protocol that includes *in vivo* imaging procedures and an animal holding room assignment. The Rangos Animal Imaging Core Staff is able to provide necessary information (e.g. experimental procedure, etc.) upon the Investigators’ request. It is recommended that Investigators contact the Animal Core Staff by email (Yijen.Wu@chp.edu) prior to the IACUC protocol approval.

All users/Investigators require the report of negative TB test to the DLAR when they enter the Animal Imaging Core facility.

Scheduling of Rangos Animal Imaging Core:

Services are provided on a first-come first-served basis.

ALL users with ALL completed work requests may reserve blocks of time for each imaging system. Core Staff is available to assist Investigators for their imaging experiments from 8:45 a.m. to 5:00 p.m., Monday through Friday. Reservation requests for imaging outside of regular business hours can be accommodated depending on the availability of Core Staff.

For Rangos Investigators and their personnel, reservation may be made electronically through the UPMC network. The *Reservation Form* is accessible upon user login to “1UPMC-acct” network domain. The form is located in the Research (R) drive folder of labeled “Rangos Flow I Core.”

There are separate scheduling calendars for each imaging system [MRI, CT/PET/SPECT, Ultrasound-HD11XE, Ultrasound-Vevo-770, and Bioluminescence (IVIS)]. Contact Core Staff if you are unsure of the instrument you require for your experiment.

For Investigators without access to the UPMC network, reservations may be made by email (Yijen.wu@chp.edu) or by telephone (412-692-9902).

Reservations may be modified at any time, provided that the desired new time slot is available. On the day of experimentation, users may view the online reservation calendar to check on potentially available time slot. But users must contact the Core Staff by email (Yijen.Wu@chp.edu) or by phone (412- 692-9902) to confirm actual schedule for that day.

Reservation may be canceled on the day reserved for use by calling Core Staff (412-692-9902) or email (Yijen.wu@chp.edu). Cancelled reservations may not be charged. *But habitual no-shows are discouraged and could incur service charge for the unused reserved time.*

Assurance of access and use of the facility:

The Rangos Animal Imaging Core has a Statement of Trust and Assurance. Users may request a copy from the Core Staff.

Assurance is made for the availability of instruments at all times.

Users/Investigators will be duly informed about temporary unavailability of instruments, such as scheduled maintenance.

Scheduling of consultation:

Requests may be made by directly contacting Animal Imaging Core staff either by email or by telephone.

Personal training of imaging system:

All users/Investigators are required to have a training session of the imaging system prior to their experimentation. Each imaging system has specific hardware and software. Maintenance of the instruments is facilitated by ‘self-operators,’ as they become experts through regular use of the instruments.

Individual Investigator and their laboratory staff need to contact Core staff to arrange their training session by email (Yijen.Wu@chp.edu) at least 2 weeks before the experimentation is planned.

User Application and sample preparation:

ALL users/Investigators REQUIRE completion of a User Application and Disclosure Form.

The Animal Imaging Core is a multi-user facility. Investigator Disclosure is a means to ensure occupational safety for all users, and to comply with Federal and University guidelines on responsible conduct of research.

Investigators assume responsibility for IRB / IACUC compliance. The Rangos Animal Imaging Core neither keeps nor monitors IRB / IACUC protocols.

Data acquisition, transfer, and storage:

Experimental samples (animal, fixed tissue, or non-living material, etc.) are the responsibility of Investigators.

All users MUST adhere to the reserved time for use. Late start- and end-time is discouraged (additional service fee may be charged based on the end-time). Extension of use time is allowed only if schedule permits.

Cleanliness and order of work areas are a collective responsibility of Investigators. The Animal Imaging Core staff is ONLY responsible to monitor the cleanliness and order of work areas after the completion of each experiment.

Assurance of quality of acquired data is the responsibility of users unless prior mutual agreement between each investigator and Animal Imaging Core staff.

For CHP/UPMC Investigators, data are automatically deposited in the Research (R) drive of the UPMC network drive. This is accessible upon user login to “1UPMC-acct” network domain. In the R-drive, mouse-click the folder of labeled “Rangos Animal Imaging Core” and then locate the sub-folder bearing the Investigator’s last name. Investigator folders are accessible only by their research staff.

For other Investigators, electronic storage media such as a flash memory drive MUST be provided at the time of the work request or at the time of self-operation.

Data storage and the back-up are the responsibility of Investigators.

For CHP/UPMC Investigators, data deposited in the network R-drive are automatically backed up each day as part of the standard operation of IT department. However, data in the R-drive “Rangos Animal Imaging Core” folder will be periodically purged in order to accommodate newly acquired data. Investigators may request retrieval of previously stored data in the UPMC network by directly contacting the IT department.

In case of personal emergency requiring immediate medical attention, users must call CHP security immediately at 412-692-5191.