

Guidelines for Use of Flow Cytometry Core I Resources

University of Pittsburgh Flow Cytometry Core I Laboratory 8148 Rangos Research Center

The University of Pittsburgh Flow Cytometry Core I Laboratory based at Rangos Research Center Room 8148 (herein referred to as “Rangos Flow Cytometry I Core”) is a research resource to support the needs of Investigators for single cell morphology analysis and for sterile cell sorting.

The Rangos Flow Cytometry I Core provides the following services:

- (a) Consultation for design and implementation of cytometry projects as part of Investigator-initiated research grants or of inter-/intra-institutional program grants
- (b) Analytical cytometry performed by Rangos Flow Cytometry I Core Staff
- (c) Analytical cytometry performed by trained personnel of Investigators
- (d) Sterile cell sorting performed *only* by Rangos Flow Cytometry I Core Staff
- (e) Off-line analysis of cytometry data

Fee structure:

- (a) Project Consultation: To be determined by mutual agreement.
- (b) Rates for all other services are available by email (Flow1Core@chp.edu) or by telephone (412-692-6968).

Scheduling of cytometry and cell sorting services:

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

ALL users with ALL work requests completed may reserve blocks of time for cytometry. Core Staff-assisted services are available from 8:45 a.m. to 5:00 p.m., Monday through Friday. Reservation requests for cell sorting outside of regular business hours maybe accommodated depending on the availability of Core Staff. Self-operators should schedule time for the LSRII.

For CHP and UPMC 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 Cytometry I Core.”

There are separate scheduling calendars for the sorter (FACSAriaII) and the analyzer (LSRII). Contact the Core Staff if you are unsure of the instrument you require for your experiment. Sort requests for FACSAriaII will be verified by Core Personnel.

For Investigators without access to the UPMC network, reservation may be made by email (Flow1Core@chp.edu) or by telephone (preferable) 412-692-6968.

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 phone (412-692-6968) to confirm actual schedule for that day. The Core Staff may use any unfilled time for completion of cytometry work requests with samples already at hand in the facility, or for instrument maintenance.

Due to high volume of cell sorting request, a maximum of one 4-hour cell sorting appointment may be made a single user within a single week. Call the Core Staff (412-692-6968) if additional sorting time may be needed within that week.

A reservation may be canceled on the day reserved for use by calling Core Staff (412-692-6968). 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 Flow Cytometry I 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, due to such events as scheduled maintenance, etc.

Scheduling of consultation, and personnel training:

Requests may be made by directly contacting the Director or the Rangos Flow Cytometry I Core staff either by email or by telephone.

Training of research personnel for self-operation of cell analyzers:

The Rangos Flow Cytometry I Core recommends training of self-operators only if the projected time for self-use of the instruments be more than 8 hours a week. Cytometry instruments have hardware and software. Maintenance of the instruments is facilitated by self-operators, as they become experts through regular use of the instruments.

Individual Investigators may request training of specific research personnel to gain a “self-operator” status. Training requests may be made by email (Flow1Core@chp.edu).

User/Work requests and sample preparation:

ALL work requests, either self-operated or Core Staff-assisted; REQUIRE completion of a **Work Request and Disclosure Form**.

The Rangos Flow Cytometry I 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 Flow Cytometry I Core neither keeps nor monitors IRB / IACUC protocols.

ALL samples for cytometry analysis MUST be fixed; the type of fixation duly disclosed on the disclosure form.

Samples for cell sorting may either be fixed or alive; but disclosure is required for safety and for special handling, as may be appropriate.

Sample preparation is the responsibility of users.

Data acquisition, transfer, and storage:

Experimental controls are the responsibility of users and are required for the proper setup of the cytometers.

The Rangos Flow Cytometry I Core recommends that controls include microbeads conjugated with the appropriate fluorochromes for instrument calibration. Please consult Core Staff for technical assistance.

Assurance of quality of acquired data pertains only to Core Staff-assisted work requests, which are prepared in compliance with Flow Cytometry I Core Guidelines. Users must specify special handling and/or processing procedures in the work request form.

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

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

Cytometry data will NOT be stored in hard drives of computer CPUs interfaced to the instruments.

Investigators assume responsibility for backing up and for storage of electronic data.

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 Flow Cytometry I Core” folder may 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.

The Rangos Flow Cytometry I Core does NOT monitor data storage.

Self-user responsibility:

Self-operation is available outside normal business hours of the Rangos Flow Cytometry 1 Core. Guidelines for reservations apply during off-hours.

Prospective self-users MUST undergo training for the use, care, and daily maintenance of instruments. Access to the facility instruments (analyzers only) is granted only upon successful completion of training by the activation of CHP/UPMC-issued badges.

Actual time of usage must be reported after each use.

Aberrations, shut downs, and any untoward incident pertaining to the use of instruments must be reported immediately to Rangos Flow Cytometry I Core staff. Only the Core staff is authorized to contact the manufacturer for service.

Cleanliness and order of work areas is a collective responsibility of all self-users.

Fluid lines of cytometers MUST be cleaned and purged after each self-operation. Any incident of line clogging MUST be reported immediately to Core Staff.

Self-users MUST adhere to the reserved time for use. Late start- and end-time is discouraged.

Extension of use time is allowed only if the schedule permits.

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