USER GUIDELINES for Beckman Coulter FC500 Flow Cytometer

The Beckman Coulter FC500 flow cytometer is part of the Microscopy & Cytometry Facility at the Huck Institutes of the Life Sciences on Penn State’s University Park Campus. It is located in MSC W-124A; phone: 814-863-2762. Hourly usage charge is $42/hour.

Training and Access:

1. New Users should contact Brian Dawson (bcd5018@psu.edu, 863-2762) to receive training and be able to book time on the FC500.
2. A RIMS account, including a billing account through UFIS, needs to be set up for each user at http://www.rims.psu.edu. Access to schedule time on the cytometer will be enabled through RIMS after training is completed.
3. Laser safety training is required to utilize any flow cytometer. Please see attached training outline.
4. Plan to spend two 2-hour training sessions to become comfortable with the software and flow cytometry principles. Before attending training, watching the videos at http://www.tinyurl.com/raodyp will improve your learning rate. Like all new concepts, you will need to put some effort into learning how flow cytometers work and how to interpret their data.

Biosafety:

1. Only BSL-1 samples may be run for analysis on the FC500. If BSL-2 or greater samples are to be analyzed, they must be fixed (i.e. using paraformaldehyde, gluteraldehyde, etc.). All human samples and pathogen-infected samples must be fixed.
2. No retrovirus-containing samples or radioactive material may be analyzed on the FC500.
3. Contaminated materials (plates, gloves, tips, etc.) must be disposed of in the biohazard trash container.

Equipment Access & Management:

Making & Using Reservations

1. A single person cannot sign up for more than 8 hours per week of "prime time" on the machine. Prime time is Monday-Friday, 8:00AM-6:00PM. An unlimited amount of time may be reserved out of "prime time".
2. No more than 4 hours of "prime time" can be reserved in any single session. If more than 4 hours of time is needed, individuals should sign up so as to start before "prime time" or end after it, or use the weekend time. If your experiment requires more than the allotted four hours of prime time per day, please contact Brian Dawson at bcd5018@psu.edu or call 814-863-2762 for special permission.
3. Users who do not log in to the equipment using RIMS within 15 minutes of their start time forfeit that time. Anyone may use the cytometers after this 15-minute grace period.
   a. If you foresee that you will arrive later than originally scheduled, you can always EDIT your reservation on RIMS to start at a later time or call Brian to edit (814-863-2762). In this way you can avoid having your original reservation canceled.
4. Allow sufficient time in your reservation for cleaning after use (see Appendix for procedures). Users are ultimately responsible for the proper cleaning of the FC500 following its use.
Normal & After-hour Usage
1. The normal hours during which the FC500 will be staffed by the Facility are:
   Monday – Friday 8:30a.m.-5:00p.m.
2. FC500 users are responsible for cleaning the FC500 at all times after use. If a user is utilizing the instrument outside of the normal hours listed above, the user is also responsible for proper Start-Up and Shut-Down of the FC500 (see Appendix for procedures).
3. If a user wishes to make use of the FC500 after 5:00p.m. Monday – Friday, he/she may call the Flow Cytometry lab at 814-863-2762 by 4:45p.m. that day to request that the instrument be left on. The user then takes responsibility for Shut-Down of the FC500 regardless of whether he/she makes use of the instrument.

Data management
1. Collect data to the hard drive of the computer attached to the FC500 Flow Cytometer during an experiment. These files can be accessed from the lab’s Workstation computers. At the end of an experiment, transfer data (LMD files) from one of the Workstation computers onto CD/DVD or Penn State PASS space. Use of USB drives to transfer data is strictly PROHIBITED, as this may potentially put the workstation computer at risk of becoming infected with malicious computer viruses and, in consequence, infect other users’ computers.
2. LMD data is removed from the FC500 hard drive at the end of each month by Facility staff. It is then backed up on a Facility hard drive. Also on the last day of each month, backed-up files on the Facility hard drive that are more than 2 months old will be deleted (i.e. on 5/31, data before 3/30 will be deleted). Data will NOT be stored by the Facility for more than 2 months.

Emergency Contacts:

If you find any malfunction with the instrument during the hours of 8:30AM-5:00PM Monday-Friday, please contact Brian Dawson (bcd5018@psu.edu) in W-124A MSC at 814-863-2762.

If the malfunction occurs at another time, do not hesitate to call Greg’s cell phone at any time: 814-880-3664. Also, stick a note on the FC500 computer notifying other users of the malfunction. If you cannot reach a member of the facility staff, please drop an email to Brian with a detailed description of the problem you were having.

Other emergency phone numbers are posted near the instrument and by the phone in W-124A.

If you are concerned about the state of the instrument after-hours, do not hesitate to call Greg’s cell phone: 814-880-3664 at any time!