



## NCI ETI Branch Flow Cytometry Core Laboratory

### Using the FACSCalibur and FACScan.

The FACSCalibur and FACScan are located in **Building 10 room 12C104**. The FACSCalibur is equipped with a second red diode laser for four-color analysis and has pulse processing for DNA content analysis. The FACScan is an older three-color instrument with no pulse processing capability. Both instruments have recently been upgraded with Mac G4 workstations.

If you have never used these instruments before, you **must** contact Veena Kapoor (5-6378, [veenak@helix.nih.gov](mailto:veenak@helix.nih.gov)) or Bill Telford (5-6379, [telfordw@box-t.nih.gov](mailto:telfordw@box-t.nih.gov)) prior to use. These instruments are located in space shared by investigators employed by the Flow Lab; please be respectful of the people who live and work there.

**Scheduling time and training on the FACSCalibur and FACScan.** The FACSCalibur and FACScan can be used by ETI Branch faculty members or investigators *who have received the appropriate training*. If you have never used a B-D flow cytometer before, please set up an appointment with [Veena Kapoor](#) for instrument instruction. Training will take approximately two hours. ***Please do not attempt to use this instrument without training.***

Sign up for the FACSCalibur or FACScan on the calendars located on the instruments. Include your name, your PI's name, phone number and the time period you require for analysis. Alternately, call or e-mail Veena or Bill to reserve time. Sign up *only for time you really need*; if you need to cancel a scheduled run, visit, call or e-mail the Core to remove your name from the sign-up sheet. Allow sufficient time for instrument start-up (about ten minutes) and post-experiment instrument cleaning and data backup (another ten minutes) when calculating your estimated usage time. Once you have finished acquiring, please fill in the User Log (the green binder on top of the instrument) with your name, your PI's name, lab location, phone number, time you used and a brief description of what you have analyzed. This information is very important for assessing instrument usage.

**Instrument care and maintenance.** When using the analyzers, please follow the start-up and shut-down instructions (posted on the front of the instrument). When you have completed your experiment, remember to flush the instrument with 10% bleach and distilled water according to the posted directions. Each user should empty the waste tank and refill the sheath after use. Sheath fluid is provided by the Core. These directions **must** be followed, no matter how small your experiment is. Following these simple maintenance instructions will greatly enhance day-to-day instrument performance and minimize downtime for

servicing. Repeated failure to take care of the instrument in this manner will necessitate frequent repair of the fluidic system, with resultant instrument downtime. Laboratories who repeatedly fail to properly maintain the instrument may lose usage privileges. If you have any questions about instrument maintenance, please ask! If you notice any problems with instrument operations, please let Veena or Bill know ASAP!

**Data storage conventions.** We have set up a single folder set up on the hard drive of both instruments for data storage (labeled "FACSCalibur User Data" and "FACScan User Data, respectively). Create a folder for yourself within this folder (using your or your laboratory name, i.e. TELFORD), and create DATA and TEMPLATE folders inside your folder. We request that you store data files and instrument templates/settings files separately in these two folders. Separating data from instrument templates will facilitate our data backup efforts, allowing us to efficiently erase old data without accidentally discarding important templates or instrument settings. ***Please do NOT clutter the Desktop with data files or folders !***

Since space in the lab is limited, we ask that you ***do not use the FACSCalibur or FACScan workstations for post-experiment data analysis unless absolutely necessary.*** Remote G3 and G4 workstations running CellQuest are located in the lab for your convenience. The workstations are also fully networked for data transfer to other computers.

The flow data on the hard drive will be backed up to CD-ROM on the first Friday of every month. All data dated one week prior to the backup and earlier will then be ***deleted*** (check [here](#) to find out the next backup date).. It is therefore ***critical*** that all of your data files be backed up by this time. We highly recommend that you routinely back up your data to a removeable disk (both instruments are equipped with Iomega ZIP and writeable CD-ROM drives) or over the network ***immediately following your experiment.*** Please remember that our monthly data backups are only intended as an emergency fallback system in case of accidental data loss; ***YOU are primarily responsible for the backup of your own data!***

Monday mornings from 10:00 to 12 noon will be reserved by the facility for routine instrument preventative maintenance. Please do not plan to use the instrument during this time.

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