



NCI ETI Branch Flow Cytometry Core Laboratory

Using the Laser Scanning Cytometer.

Scheduling time and training on the Laser Scanning Cytometer. The Compucyte Laser Scanning Cytometer (LSC) is located in Building 10 room 12C121. Although many investigators choose to use this instrument with the assistance of a trained operator, frequent users may wish to receive training for independent use. ***Please do not attempt to use this instrument without training.*** Contact Bill to set up both experiment and training sessions.

Sign up for the LSC on the calendar located above the instrument. Include your name, your PI's name, phone number and the time period you require for analysis. Alternately, call or e-mail Bill Telford (5-6379, telfordw@box-t.nih.gov) 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 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. The LSC has no fluidics and requires less user maintenance than the flow cytometers. Nevertheless, we ask that users follow a few simple maintenance and safety directions:

- Make sure the stage and all optical components are clean following usage. Please clean up buffer, mounting media, etc. that may have spilled onto the stage during analysis. Liquids can work their way into sensitive electronic areas of the instrument, as well as onto the condenser optics. If you believe buffer, mounting media or immersion oil residue has been left on the objective, please clean it off as well.
- The X-Y stage is propelled by powerful stepper motors. It is therefore important to make sure that the condenser (under the stage) and objectives (above the stage) are kept out of the stage movement plane, particularly during automatic stage return to the load position. If the condenser or objective are protruding into the stage area, the shear force of the stage can cause serious damage to both the optics and the stage. More importantly, ***keep your fingers out of this area*** - the sharp edges of the stage opening combined with stage motion ***can cause serious injury!***

Data storage conventions. Like the FACSCalibur, we have set up a single folder set up on the hard drive for data storage (labeled LSC User Data). 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.

Due to network incompatibility problems, the LSC computer is not connected to the ethernet. The computer is equipped with a ZIP drive and a writeable CD-ROM drive that can handle both CD-R and CD-RW disks. Please back your data to the media of your choice after every experiment.

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