

Fluorescence Cytometry Core

Training

The technology of Flow Cytometry is rapidly growing and highly technical. The goal of the core staff is to adequately train users in sample acquisition and analysis to produce quality and reproducible data presentable for publication. Only those users who are committed to using the technology with frequency and show a strong desire to learn correct technique will be trained to be independent users. Those who want to use the equipment less frequently are still highly encouraged to utilize the Core, but with Core Staff assistance. Core staff assists all cell-sorting experiments at this time. Ongoing and updated training is available by occasional workshops.

BD FACSAria Independent Training:

1. Read and complete Introduction to Flow Cytometry, A Learning Guide by BD Biosciences, manufacturer of the instrument. (Approx. 2.5 hrs)
2. Complete BD FACS DIVA™ Software Quick Start Guide that contains tutorials on creating experiments, gating, auto compensation, and manual compensation. (Approx. 2.0 hrs)
3. Observe/perform instrument startup and shutdown. (Approx. 30 min)
4. Run QC three to four days in a row with Operator instruction. (Approx. 1 hr)
5. Set up and run three to four experiments with supervision from the Core Facilitator. (Approx. 4 hrs)
6. Complete minor troubleshooting checklist with Core Facilitator. (Approx 1 hr)
7. Sign completed Training checklist and Responsibility Form.

BD FACSCalibur Independent Training:

1. Read and complete Introduction to Flow Cytometry, A Learning Guide by BD Biosciences, manufacturer of the instrument. (Approx. 2.5 hrs)
2. Complete BD CellQuest tutorial. (Approx. 2.0 hrs)
3. Observe/perform instrument startup, QC and shutdown. (Approx. 30 min)
4. Set up and run three to four experiments with supervision from the Core Facilitator. (Approx. 4 hrs)
5. Sign completed Training checklist and Responsibility Form.

Compucyte LSC Independent Training:

1. Training will be tailored on an individual basis, depending on previous experience with Fluorescent staining and microscope use. One on one demonstration and self performed tutorials from the manual will be employed.

Luminex Independent Training:

1. Training will be given on an as needed basis. Operating procedures are printed and available and fairly easy to follow. Software tutorials are available and encouraged before use.

autoMACS:

1. The autoMACS is located in the lab of Dr. David Shepherd (Skaggs 273.) Please see him or one of his lab staff for instructions.

Zeiss Fluorescence Microscope:

1. Instructions are available upon request.

Computer Work Station & Laptop:

1. BD FACSDiva, FlowJo and FCS Express are software programs for data analysis of Flow Cytometry data. Tutorials are available for each and assistance offered by Core staff. Sign ups are encouraged.

Please see Core Facilitator if interested in scheduling training times.

Pam Shaw, Staff Scientist
Fluorescence Cytometry Core
Center for Environmental Health Sciences
The University of Montana
32 Campus Dr
Skaggs Building 052
Missoula, MT 59812
Ph (406) 243-4974
Email: pamela.shaw@umontana.edu
www.umt.edu/cehs