

## **General SOPs and Things to Know before you Schedule an Appointment with FCSR**

### **Facility Access and Resources**

- The Flow Cytometry Shared Resource, (FCSR) is available M-F, 9 am – 5 pm for data acquisition, analysis, and cell-sorting.
- The facility offers benchtops, a laminar flow hood, and centrifuge use for client sample preparation, but does not provide any sample preparation itself.
- For specially trained clients, with building access permissions, the facility and instrumentation is available for Un-assisted use, 24 hours per day.
- The Human Immune Monitoring Facility can assist with all levels of sample preparation if necessary. It is located in the Cancer Center basement room 0913. Please contact Matthew Field (msfield1@arizona.edu) for assistance with flow cytometry staining protocols.

### **Scheduling**

- First time clients will consult with FCSR staff, either by phone or in person, to agree upon the experiment, sample preparation, materials needed, number of samples, fluorochrome use, and instrument selection, before scheduling an appointment.
- Clients will then schedule their own appointments using the iLAB website, (<https://ua.ilab.agilent.com/landing/3645>) after registering their own user profile and being given fund access by their own Principle Investigator.
- Assisted BD AriaIII cell sorting and Luminex ImagestreamX appointments will be scheduled by FCSR staff.
- All CantoII appointments must be reserved 2 hours in advance. However, specially trained clients can schedule immediate “walk-up” appointments. If FCSR staff approves, appointments can be started up to 1 hour in advance.

**Rates:** Rates for all types of FCSR use are described on the iLAB schedule webpage. Please visit the iLabs page for the most up to date instrument usage fees.

### **Instrument Usage Policies:**

- Habitual late arrival to appointments will not be tolerated and will result in suspension of scheduling privileges.
- Appointments >30 minutes will be charged the full price of the original appointment duration, unless additional clients are able to recover unused appointment time.
- Gloves will be worn when using any of the facility instruments and computers/keyboards. BSL-2 materials also require a lab coat to be worn.
- Issues resulting from poor sample preparation or low cell number are the responsibility of the client and the FCSR is not responsible for time spent clearing “clogs” or low sample concentration resulting in lost data due to insufficient time in an appointment. For a nominal charge, the FCSR does provide “cell-strainer” capped tubes.
- The FCSR will credit user time if failures or wasted appointment time is deemed to be the fault of the instrument, software, or staff.
- Assistance for “after-hours” clients cannot be guaranteed, although clients are encouraged to text message FCSR staff at any time, should any instrument problems arise. If staff is able to return to campus to assist with problems, and the issue is client or sample related, the client will be charged travel time at the current rate for staff labor.

- Frequent problems, such as clogging, by a client during “after-hours” use, will result in suspension of “after-hour” and/or Unassisted scheduling privileges.

### **Training**

- Frequent clients, once per week or more, can be provided training for Unassisted use.
- The requirements and duration of training is highly variable depending upon the type and difficulty of experiments performed, user qualifications and which instrument will be used.
- Training appointments are **not** to be used as data acquisition appointments, and only a minimum of samples for demonstration are allowed. Please discuss these details with FCSR staff prior to training.
- Clients on the BD CantoII have access to FCSR staff during working hours and can receive immediate assistance or intermittent training, meaning the expected skill level after training is not as high as for users doing complex immunophenotyping on the BD LSR.
- In addition, most LSR users are given complex flow cytometry training by their own laboratory members and PI; and so FCSR staff train only to a level of independent machine operation, troubleshooting, and basic software use. More detailed knowledge of software and flow cytometry is the responsibility of the client and their laboratory, unless specifically requested.
- Training for the BD Aria III cell-sorter requires considerable previous experience in using the BD LSR analyzer and full confidence by FCSR staff in the client’s demonstrated ability to use and troubleshoot problems with the BD Aria III.
- In summary, the minimum requirement for being an Unassisted client, is successful machine operation, troubleshooting, cleaning and completely autonomous software use – experiment layout, gating, compensation, and data export.

### **Data Storage and Analysis**

- All data generated in the FCSR is the complete responsibility of the client. The FCSR will attempt to archive the previous few months of client data, but at least once per month, each instrument will be scrubbed, up to even the last two weeks of client data, in an effort to minimize software crashes and corrupt data sets.
- Data analysis support and training is available as a fee for service for all cytometric data, refer to iLabs for pricing. Please arrive with knowledge of desired gating strategies, populations of interest, expected expression levels of markers, and fluorophores used.
- FCSR experience with the new Luminex Imagestream’s potentially complex image-based analysis, is currently limited, therefore learning the analysis methods will be primarily the responsibility of the client. Highly qualified direction is available through Luminex.
- Data analysis resulting from poorly prepared samples, or those containing contamination or heavy cellular debris will not be released to the client.

### **COVID-19 Policies**

- The FCSR operates under the guidelines described by the University of Arizona, and those outlined by the director of the UArizona Cancer Center.
- Additionally, all touched surfaces -- chairs, benchtops, keyboards, mouse, instrument switches and components, light switches, and door handles – will be wiped with provided 70% EtOH in water after each client, either by FCSR staff (for Assisted use) or by the client in any Unassisted use. Documentation of this decontamination on a logsheet is mandatory.