

SCIF Training Policy for Cytometers/Sorters

Contact David Gravano with questions or to set up a training session
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Analyzers (ie. LSR2)

For all use of the LSR (independent or operator assisted), users must follow this order of training steps.

- Complete the BD eCourse on cytometry (~1.5 hrs):
http://www.bdbiosciences.com/us/support/s/itf_launch
- Complete a hands-on LSR training with David Gravano (~2 hrs)
Hands on training can be with fluorescent beads provided by the SCIF or with your own samples. We recommend bringing your own samples, if possible, so we can optimize the instrument settings for those.
- Once these training steps are complete users will be able to perform Independent LSR2 Usage or Operator Assisted LSR2 Usage.
- (Optional) Once users are trained on the LSR2 they are eligible to take the 2-Day Flow Cytometry Course offered by the SCIF. This course will train users on advanced sample prep, cytometry applications, and FlowJo analysis. This is really designed for people who are performing or plan to perform quite a bit of flow cytometry in their research.

Sorters (ie. Aria2, Aria3)

For all use of the FACS Aria sorters the following steps must be completed.

- Have completed all the LSR training above (except the optional 2-day course) to be familiar with flow cytometry and Diva software
- Perform a hands-on Aria training (~2 hrs). This will be done with fluorescent beads provided. After completion of this step the user will be able to bring samples for Operator Assisted FACS Aria Usage and Semi-Independent FACS Aria Usage.
- (Optional) Once users have been performing sorts and feel they require Fully-Independent FACS Aria Usage, such as for weekend sorts, they will be eligible to take the SCIF Advanced FACS Aria Training. This is a 2-day course covering instrument theory, setup, and advanced applications such as plate sorting and rare population sorting.

Definitions:

Business Hours:

9AM-5PM Monday through Friday excluding university holidays and campus closures (eg. winter break)

Operator Assisted LSR2 Usage:

Only during business hours. If you have signed up with at least 24 hour notice the SCIF will have the instrument set up and CS&T calibration beads run. You will then be responsible to provide your samples and all information and reagents necessary (eg. tubes, dyes, strainers, plate layout). You will need to confirm the setup, including PMT voltages, gating, sample labeling, prior to leaving the samples for

operator assisted running. We are not responsible for sample to sample variability that requires adjustments, but will make our best effort to notify the investigator if any problems are seen during acquisition. SCIF staff will perform instrument cleaning and shutdown when finished. This will be billed at the operator-assisted rate.

Independent LSR2 Usage:

During business hours:

If you have signed up with at least 24 hour notice the SCIF will have the instrument set up and CS&T calibration beads run. You will then be able to log into your account and run your samples. It will be your responsibility to perform mandatory cleaning when finished. This will be billed at the non-operator assisted rate.

Outside of business hours:

Only independent LSR2 usage is available outside of business hours. Users will be responsible for starting the instrument, ensuring adequate buffer levels, running their samples, and performing instrument shutdown. This will be billed at the non-operator assisted rate.

Operator Assisted FACS Aria Usage:

Only during business hours. If you have signed up with at least 24 hour notice the SCIF will have the instrument set up and CS&T calibration beads run. You will then be responsible to provide your samples and all information and reagents necessary (eg. tubes, dyes, strainers, plate layout). You will need to confirm the setup, including PMT voltages, gating, sample labeling, prior to leaving the samples for operator assisted running. We are not responsible for sample to sample variability that requires adjustments, but will make our best effort to notify the investigator if any problems are seen during sorting. SCIF staff will perform cleaning and shutdown. This will be billed at the operator-assisted rate.

Semi-Independent FACS Aria Usage:

Only during business hours. If you have signed up with at least 24 hour notice the SCIF will have the instrument set up and CS&T calibration beads run. Users will be required to be present to monitor their sort, but contact SCIF staff if any issues arise with sample acquisition, stream stability, collection issues, etc. Users should leave the stream running, raise the instrument hood, and immediately notify SCIF staff when they are finished. SCIF staff will perform cleaning and shutdown. This will be billed at the non-operator assisted rate.

Fully-Independent FACS Aria Usage:

Outside of business hours. Users will have to have completed the SCIF Advanced FACS Aria Training Course and have been observed independently setting up the FACS Aria at least 3 times by SCIF staff. Users must start the instrument, set up the stream, and perform all calibrations independently. Users will also be required to perform instrument cleaning and shutdown. This will be billed at the non-operator assisted rate.