**New User Flow Cytometry**

Our core facility has several instruments: two Beckman Coulter Gallios analysis flow cytometers; a Beckman Coulter Astrios MoFlo cell sorter; Sony MA900 cell sorter (users can be trained to perform their own sorts); a BD Fortessa X-20 analysis flow cytometer with HTS plate loader; Attune NXT with HTS plate loader and an Amnis ImageStreamX MarkII (newly upgraded for 2022); and computer workstations with various data analysis software. You can read more about these instruments and other facility details at our website: [http://flowcytometry.lunenfeld.ca](http://flowcytometry.lunenfeld.ca/)

Rates are $85/hr for cell sorting and the ImageStream, $75/hr for assisted analysis services and $40/hr for unassisted Gallios use. For more details see: <http://flowcytometry.lunenfeld.ca/?page=Rates%20and%20Services>

**To get started as a new flow cytometry user, please complete these steps:**

1. **User registration form.** Download and complete the form with all signatures and submit it to [parsons@lunenfeld.ca](mailto:parsons@lunenfeld.ca) and [bang@lunenfeld.ca](mailto:bang@lunenfeld.ca):

<http://flowcytometry.lunenfeld.ca/files/file/flow%20core%20registration%20form%20261110.pdf>

2. **LTRI Shared Resource Scheduler.** We have an online interactive calendar. Once your user registration has been received you will be assigned a login username and password, then you can make your own bookings on the various instruments, depending on your level of training.

3. Prior to Scheduling flow theory session with Michael it would be useful to view an introductory flow cytometry video <https://www.youtube.com/watch?v=sfWWxFBltpQ>

For more flow cytometry theory, I'd recommend some videos on this Thermo website:

<https://www.thermofisher.com/ca/en/home/life-science/cell-analysis/flow-cytometry/flow-cytometry-learning-center/flow-cytometry-resource-library/flow-cytometry-educational-videos-webinars.html>

Type in "tutorial video" in the "Search all videos" field. Watch the 5 videos in this order:

1. Introduction to Fluorescence

2. Anatomy of Fluorescence Spectra

3. Overview of Filters and Light Sources

4. Introduction to Flow Cytometry

5. Analyzing Flow Cytometry Data

You can also search for these two longer webinars in the same resource list:

Basics of Flow Cytometry, Part I: Gating and data analysis

Basics of Flow Cytometry, Part II: Compensation

There are actually many very good videos on various topics in flow cytometry, from general to application specific. Just hours of good information! Our web site also has lots of useful links and information under resources and training.<flowcytometry.lunenfeld.ca>

If you prefer written material over video, here's a good place to start:

<https://www.thermofisher.com/ca/en/home/life-science/cell-analysis/cell-analysis-learning-center/molecular-probes-school-of-fluorescence/flow-cytometry-basics.html>

4. **Instrument Configurations.** Want to know what kind of fluorophores you can use on the instruments? The Gallios configuration and example fluorophores are attached here. Find out the details about the other instrument configurations: <http://flowcytometry.lunenfeld.ca/?page=Instruments>

5. **General lab biosafety.** Please read <http://flowcytometry.lunenfeld.ca/DEFAULT.ASP?page=Biosafety>