

TRUDEAU INSTITUTE

Flow Cytometry Core Facility

Analytic Instrumentation: The FACS facility at Trudeau houses six analytical instruments:

- Two dual-laser (four color) BD FACSCaliburs
- A single-laser (three color) BD FACScan
- A dual-laser (five color) modified BD FACScan
- A three-laser (eight color) BD FACSCanto II
- A four-laser (14 color) BD LSR II

Individual staff members may operate these instruments after appropriate training in their use. The lab is available for use 24 hours a day, seven days a week, although anyone using the lab must schedule instrument use in advance, and record their time used.

In addition to the six analyzers located within the FACS facility, the BSL3 suite on the third floor also houses a dual-laser (four color) BD FACSCalibur that is directly overseen by the FACS Core Facility.

Preparative Instrumentation: The Flow Cytometry Core Facility also has a three-laser (488 nm, 633nm, and 405 nm), eight color, BD FACSVantage SE w/DiVa option high speed cell sorter. This instrument is capable of bulk sorting up to four distinct populations simultaneously into tubes or plates, at rates of up to 25,000 cells per second. The FACSVantage is equipped with a bio-containment hood, observed to successfully contain phage particles at 2×10^9 PFU/mL under normal conditions and under conditions where the sort stream was purposefully misdirected. This allows researchers, following safety committee and core manager approval, to sort cells from infected sources. Operation of the FACSVantage is performed solely by members of the Core Facility staff and must be scheduled through the facility manager.

Flow Cytometry Charges: Chargeback for instrument use attempts to pay for the cost of service contracts, Core Facility employee salaries, consumables, and repairs.

FACScans	\$25/Hr
FACSCaliburs	\$35/Hr
FACSVantage	\$50/Hr
FACSCanto II	\$40/Hr
LSR II	\$50/Hr

Data Archiving: An enormous amount of data is generated in the Flow Facility. For the older instruments (The FACScans and FACSCaliburs, and as needed, the FACSVantage), the facility manager backs up and stores data on DVD at the end of every month. The amount of data generated by our newest instruments (The FACSCanto II and the LSR II) makes this impossible, so users are responsible for immediately backing up all data generated. In either case, individual investigators are strongly encouraged to archive all of their own data.