



# DHVI Flow Cytometry Facility

## Mission

- The DHVI Flow Cytometry Facility serves the flow cytometric needs of the Duke Human Vaccine Institute and researchers throughout the Duke Community.
- DHVI Flow offers support over the full range of a flow cytometry experiment, from instrument training, to panel design, to data analysis and presentation.

## Leadership / Experience

- **Director:** Derek W. Cain, PhD, CCy
- **Flow Engineer:** Patrice McDermott, CCy
- **Flow Engineer:** Steven Slater, CCy
- **Research Technician:** Ariel Arus
- Scientific Advisors:**
  - Gregory Sempowski, PhD
  - M. Anthony Moody, MD

## Services

- **Flow cytometric analysis:** Independent use, 24/7
- **Flow cytometric sorting:** Operator-assisted
- **Instrument Training for independent use**
- **Consultation:** Experiment design, analysis, and presentation
- **FlowJo® Site License**
- **Fluorofinder® Partnership**
  - Build an antibody panel using the configuration of our cytometers.
  - Access our panel repository through Fluorofinder® Groups feature.

## Instruments

### BD LSRFortessa ("F01")

- Independent Use, 24/7
- 2 Lasers (488, 640 nm)
- 2 scatter parameters, 8 fluorescent parameters



### BD LSRII (L01 and L02)

- Independent Use, 24/7
- 4 Lasers (405, 488, 532, 639 nm)
- 2 scatter parameters, 18 fluorescent parameters
- High Throughput Sampler



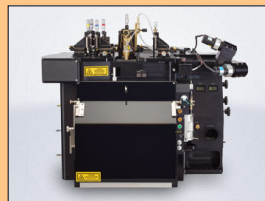
### BD FACS Aria II (A01, A02)

- Operator-assisted sorter
- 4 Lasers (405, 488, 532, 639 nm)
- 2 scatter parameters, 18 fluorescent parameters
- 4-way sorting, Plate Sorting, Index Sorting
- BSL2, 2+, 3



### BD Influx (N01)

- Operator-assisted sorter
- 5 Lasers (355, 405, 488, 532, 639 nm)
- 2 scatter parameters, 23 fluorescent parameters
- 6-way sorting, Plate Sorting, Index Sorting



## Recent Projects / Publications

- K.O. Saunders *et al.*, *Vaccine Elicitation of High Mannose-Dependent Neutralizing Antibodies against the V3-Glycan Broadly Neutralizing Epitope in Nonhuman Primates*, Cell Reports 2017, vol 18
- L.D. Williams *et al.*, *Potent and broad HIV-neutralizing antibodies in memory B cells and plasma*, Science Immunology 2017, vol. 2
- Q. Han *et al.*, *HIV DNA-Adenovirus Multiclude Envelope Vaccine Induces gp41 Antibody Immunodominance in Rhesus Macaques*, Journal of Virology 2017, vol. 13
- M. Moody *et al.*, *Immune perturbations in HIV-1-infected individuals who make broadly neutralizing antibodies*, Science Immunology 2016, vol. 1

## Reservations / Service Requests

- Instrument Reservations can be made on our online calendar through [CoreResearch@Duke](mailto:CoreResearch@Duke)
- Training requests can be made through our website (see "Contact Us" below)
- Consultation: Email us for assistance with experiment design, analysis, and/or presentation ([dhviflo@dm.duke.edu](mailto:dhviflo@dm.duke.edu))

## Contact Us

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**E-mail:** [dhviflo@dm.duke.edu](mailto:dhviflo@dm.duke.edu)

**Website:** [shared-resources.dhvi.duke.edu/dhvi-core-facilities/dhvi-flow-cytometry](http://shared-resources.dhvi.duke.edu/dhvi-core-facilities/dhvi-flow-cytometry)

**Location:** MSRBII 2045