**URL:** <http://www.utoledo.edu/med/depts/micro/cyto/>

**Director**: Andrea L. Kalinoski, Ph.D. David A. Weaver, D.D.S, Ph.D.

*Associate Professor Assistant Professor*

419.383.4205 Office Phone 419.383.3402 Office Phone

419.383.6230 Fax 419.383.6230 Fax

[andrea.kalinoski@utoledo.edu](mailto:andrea.kalinoski@utoledo.edu) [david.weaver@utoledo.edu](mailto:david.weaver@utoledo.edu)

**Description**

*Square Footage*: 150 square feet

*Facility Location*: Health Science Campus, Health Education Building, Room 233A

As one of The University of Toledo's core laboratories, the Flow Cytometry Core Facility provides access to instrumentation, assistance, and guidance, and offers information on current cytometric methods and applications as well as on dyes, cytometric bead arrays, multi-color panel kits, and other reagents. This facility welcomes UToledo investigators from all campuses, and industrial researchers, technicians, and students from the surrounding community.

**Major Equipment**

* **BD Biosciences FACSCalibur** features 2 lasers: an Argon Blue (488nm Excitation) and a Red Diode (635nm Excitation).  The unit has 6 detectors: FSC – 488/10, SSC – 488/10, FL-1 – 530/30, FL-2 – 585/42, FL-4 – 661/16, FL-3 – 670LP and is capable of aggregate discrimination by the BD Doublet Discrimination Module.  Researchers are trained by the Flow Cytometry Core staff to use the machine for cell population(s) analysis at their convenience.
* **BD FACSAriaIIu High-Speed Cell Sorter** is equipped with 3 lasers: a Violet (407nm Excitation), an Argon Blue (488nm Excitation) and a Helium Neon Red (633nm Excitation).  The unit has 12 detectors.  For the 488nm Excitation, detectors available are FSC – 488/10, SSC – 488/10, 530/30 (515 – 545nm), 575/26 (562 – 588nm), 610/20 (600 – 620nm), 695/40 (675 – 715nm), 780/60 (750 – 810nm).  For the 633nm Excitation, detectors available are 660/20 (650 – 670nm), 730/45 (707 – 752nm), 780/60 (750 – 810nm). For the 407nm Excitation, detectors available are 450/40 (430 – 470nm), 530/30 (515 – 545nm).  The FACSAriaIIu is capable of a High-Speed Sort Rate up to ~25,000 events(cells)/second and is capable of aggregate discrimination by the BD Doublet Discrimination Module.  The unit has temperature controlled sample and sorting

receptacles and a multi-well plate sorter with an Aerosol Management System to evacuate aerosolized particles from the sort chamber protecting the operator during routine sorting procedures.   This system can be used to isolate/separate cell types (or vesicular bodies), rare populations, as well as specific clones (post-transfection) for further cell culture or analysis/experimentation—if a population can be labeled, distinguished, and gated, it can be sorted.