COMING IN 2010:

Spectral Confocal Microscope System

The Flow Cytometry and Confocal Microscopy Facility is purchasing a new confocal microscope following the successful Major Equipment Competition proposal submitted by Dr. David Knecht. This microscopy system will offer significant improvements over the 10-year-old Leica SP2 currently in the Facility. Features of the new system include:

- Additional/improved excitation wavelengths including a violet laser for DAPI imaging
- Detectors with higher light efficiency
- A 32-channel spectral detector to facilitate separation of signals from probes with overlapping emission curves
- FRET (Förster Resonance Energy Transfer)
- FRAP (Fluorescence Recovery After Photobleach)
- Photoactivation and photoconversion capabilities
- A computer-controlled x-y stage and a controlled-atmosphere stage insert for long-term imaging of mammalian cells

Additionally, this system will be upgradeable to perform FRET-FLIM (Fluorescence Lifetime Imaging Microscopy) and FCS (Fluorescence Correlation Spectroscopy) when additional funds become available.

Anticipated availability date is Summer 2010.