

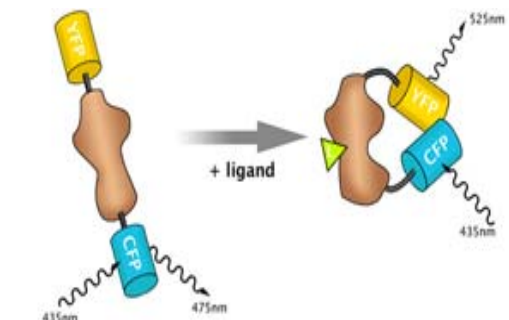


New assay for Cytometry lab

In late September, the Cytometry Core Facility tested a multiplexed bead assay from BD Biosciences. The new Cytometric Bead Array Flex Set System uses particles with different and discrete fluorescence intensities to detect multiple soluble analytes from a single sample of serum, plasma or culture media supernatant. By combining antibody coated capture beads with the broad dynamic range of fluorescence detection by flow cytometry, fewer dilutions are necessary to determine the concentration of the protein of interest. This system is reliable, reproducible and takes less time than the ELISA. Results are expressed as pg/ml, and the amazing flexibility of the bead based reagents allows you set up your own array, or use an already prepared kit. In theory, up to 72 proteins can be analyzed with a single sample. Please visit <http://www.bdbiosciences.com/flexsets> for more information about the kits. Please contact Barb Carolus at 621-2047 or <carolus@email.arizona.edu> if you have any questions, or would like to set up time to run your samples on the FACSARIA.

FRET (fluorescence resonant energy transfer) Techniques

The Core has been collaborating with CBA graduate student Matthew Salanga, M.S. to work out the details for demonstrating FRET techniques in cultured cells using the Zeiss multiphoton/confocal microscope. Matt has considerable experience with FRET from his previous position of running a confocal core facility at the Children's Hospital at Harvard University. We have been using a Nitric Oxide reporter construct that Dr. Lantz obtained from a colleague at the University of Pittsburgh Medical Center. The construct consists of an ion chelator with two fluorescent proteins attached (*eCFP* and *eYFP*). When the construct is in the presence of ions (e.g., zinc), the two fluorescent proteins are very close together. In the close configuration, some of the resonant energy that is created when the *eCFP* is excited is transferred directly to the *eYFP* molecule, which reduces the expected fluorescence of the *eCFP* molecule. This change can be measured. When nitric oxide is present, the configuration of the chelator is changed and the two fluorescent proteins are moved far enough apart that the transfer of energy can no longer happen between the two fluorescent proteins.



Modified from: <http://www.mekentosj.com/science/er/fret.html>

DPI, RGB, TIFF, EPS...help!

The Core has considerable experience with digital imaging, including laying out image figures for publication in Adobe Photoshop. We would be happy to provide individualized training for SWEHSC-affiliated faculty, staff or students that are interested.

New version for Zeiss LSM Image Browser software

Version 3.5 of the LSM Image Browser is not a major upgrade, but might be worthwhile if you are using a version older than 3.2 (*run the program and select HELP | ABOUT to check on the version number*). The Core's PDF handout for installing the software has been updated to reflect the changes in the new software version, it can be downloaded at: <http://swehsc.pharmacy.arizona.edu/exppath/core/equip/handouts/>

Personnel News

- Andrea Grantham (CBA Histology Service Lab) received the prestigious McCormick award at the 2005 National Society for Histotechnology meeting in Ft. Lauderdale last month. Kayla Chastain, a Pima Community College student working in the Histology Service Lab, submitted sample slides to a staining contest and won two first place awards at the 2005 NSH meeting in Ft. Lauderdale.
- Doug Cromey was promoted to Assistant Scientific Investigator. The IAB recently voted to give Mr. Cromey the status of key personnel on the SWEHSC grant.