Center for Toxicology, Southwest Environmental Health Sciences Center (an NIEHS Center, ES06694)

Cellular Imaging Core Newsletter

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Replacing and discarding of microscope bulbs

Users should be aware that when they need to replace a burned out microscope lamp, the old bulb can still be **very hot!** It is always best to wait until the bulb has cooled before removing it. Handling a hot bulb requires heat-resistant gloves and eye protection, especially since Mercury and Xenon bulbs can explode when hot. After they have cooled, Mercury bulbs should be placed in a zip-lock bag, tagged for UA Risk management, and they will be collected when your lab has its regular HazMat pick-up.

Install any type of new microscope bulb by handling the bulb with cotton gloves, a kimwipe or powder-free gloves to avoid depositing finger oils on the lamp surface, which can weaken the glass. Arc lamps *(e.g., for fluorescence)* often have a preferred orientation in the housing. To be sure you install the arc lamp bulb correctly, check the documentation, or ask your vendor's sales representative to show you how to install/align the bulb. If you need to replace a bulb immediately and you don't have the necessary information, try to install the bulb in the exact same orientation as the old bulb *(this assumes that the last person to replace the bulb installed it correctly).*

Don't lose your USB flash drive!

USB flash drives are handy ways to transfer and back up data. They are so small that it's difficult to write your name on the outside of the device. Here's a suggestion; create a folder on your drive and name it OWNER INFORMATION. In that folder save a text, PDF, or MS Word formatted file with your contact information *(name, phone number with area code, email, etc.).* Just like finding a lost wallet, the first thing someone who finds your flash drive is likely to do is look inside to see if they can figure out who it belongs to. Some other advice;

- It is a violation of federal privacy regulations (HIPAA) to transfer unencrypted, identifiable patient information with a flash drive or other removable storage devices.
- Flash drives are a bit of security risk, simply because they are so small and easy to misplace. Don't put anything on your drive *(e.g., financial data, lists of passwords or credit card numbers, etc.)* that you need to keep private. If you must use the drive for sensitive information, consider using the encryption tools that come with many of the drives.
- Please don't use flash drives as the only backup method for important files. You wouldn't want to lose the only copy of your valuable research data.
- Pulling the flash drive out of a computer without stopping or ejecting the drive is an invitation to data loss. You might get away with it once, or dozens of times, but eventually the drive will fail. The failure is usually due to the drive not completing a write process. Since it is not a hardware failure, the drive can be re-formatted and used again.

On-line for 10 years

In February 1996, when the WWW was only 5 years old, we posted the first three web pages for the Cellular Imaging Core *(then the Experimental Pathology Core).* What began as a way for Doug Cromey to share his growing collection of microscopy-related bookmarks has become 60 pages of links, information, and user resources. Here are some useful starting points within the Core's web site:

- Information about the Cellular Imaging Core - http://swehsc.pharmacy.arizona.edu/exppath/core/
- Microscopy & Imaging Resources on the WWW - http://swehsc.pharmacy.arizona.edu/exppath/micro/
- Educational Resources - http://swehsc.pharmacy.arizona.edu/exppath/resources/
- Quick Links *(on-line instrument scheduling, newsletter, handouts & tutorials, other information...)* - http://swehsc.pharmacy.arizona.edu/exppath/core/quicklinks.html

Protocol resource

Invitrogen *(Molecular Probes, QuantumDots)* has made available on their web site selected protocols from the John Wiley & Sons Current Protocols methods series. See: http://www.invitrogen.com/iProtocol

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