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

Cellular Imaging Core Newsletter

October 2003 **http://swehsc.pharmacy.arizona.edu/exppath/**

What is a tissue microarray?

Tissue microarrays look much like a gene microarray, except that each "dot" is a small piece of tissue. The "dots" are cores taken from selected paraffin blocks to represent a range of either gene or protein expression. The cores are assembled into a single paraffin block. Cancer researchers use these microarrays to look at gene expression in tumors.

http://www.nhgri.nih.gov/DIR/CGB/TMA/

The Histology facility does not have all the equipment necessary to build and section large arrays, but the facility could build a small array for interested investigators. A small array could be used for gene expression analysis or as a control tissue for immunostains *(DAB or fluorescence)*.

Additional information: http://www.yalepath.org/DEPT/research/YCCTMA/tisarray.htm

SWEHSC competitive renewal reminder:

The NIEHS searches the literature looking for our grant number. This is because we are required to acknowledge NIEHS support in publications. If you have used the histology lab, the EM facility (AHSC or main campus), the confocal microscope, the deconvolution microscope, the ARL flow cytometry facility (main campus) or the image analysis workstations then the SWEHSC grant needs to be acknowledged. Even if your lab personnel didn't work directly with the Cellular Imaging Core personnel, please be aware that we have provided and continue to provide a great deal of technical support to all of these facilities. The SWEHSC has also been a financial contributor to the purchase of several of these instruments. The SWEHSC grant number is **NIEHS ES06694.**

Immuno-histochemistry/fluorescence workshop planned for January 2004:

We've recognized that labs regularly run into problems with immunohistochemistry/immunofluorescence experiments. We are currently working out the details for a workshop on these topics for early January. We will supply more details via the SWEHSC email list.

Core web site redesign:

We are actively working on a redesign of the SWEHSC web site. Our Core is interested in user's comments or suggestions on how we can improve the usefulness of our web site. Are we missing information that you would like to see? Is there information that's hard to find? Please take a few minutes to visit our current site *(URL at the top of this page)* and send your comments to Doug Cromey.

It's not a bother...

We regularly encounter staff or students who are concerned that they might be "bothering" us with their questions. We are here as a resource for SWEHSC investigators and members of their labs. Please allow us to assist you in planning experiments, answering technical questions, troubleshooting problems, providing instrument-specific training, assisting in the interpretation of results and reviewing pertinent sections of grant proposals and manuscripts. We would be happy to attend your lab meetings, that way your staff can get to know us. We would be willing to give a brief presentation or just be available to informally answer questions.

Long-term storage in aldehyde fixatives:

Please do not store tissues for longer than a week in aldehyde fixatives *(paraformaldehyde solutions, formalin, formaldehyde, glutaraldehyde)*. If you are not sure what you will do with the tissue next, please consider having the tissue embedded *(Histology or EM)* for long term storage. Embedded tissue won't suffer from over-fixation artifacts that can cause problems for immuno-labeling experiments.

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