

2010 TRI-STATE WORKSHOP DESCRIPTIONS

April 28-April 30, 2010, West Des Moines Marriott Hotel, West Des Moines, Iowa

Main Speaker: Sectioning Artifacts: Causes and Cures

Peggy Wenk, BA, BS, HTL (ASCP) SLS

Why are my sections coming off thick and thin? What's causing the microchatter in the GI biopsies? Is it better to cut skin through the epidermis first, or through the connective tissue? Why does the pathologist complain about folds in the cervix or skin sections, but never in the liver or lung sections? Why can I never cut with this company's disposable blades? What are these unidentified objects on top of the tissue, and where did they come from? Why are my frozen sections shattering/chattering/curling? The causes often lie, not just with the microtome, but in all the previous steps of fixation, processing and embedding. Causes and cures to these questions, and many more, will be discussed in this 3 hour workshop, and demonstrated with the use of photos.

#1. Prostate Cancer and Prostate Cancer Immunohistochemistry Markers, Traditional and New

Traci DeGeer, BS, HT(ASCP), HTL, QIHC

(Sponsored by Ventana Medical Systems)

Prostate cancer is the most common form of cancer detected in men. The introduction of the biomarker PSA and an aging population have led to an increased number of biopsies to assist in diagnosis. The histology laboratory plays a vital role in determining benign from malignant lesions after biopsy. The importance of knowing the basic anatomy of the prostate and what factors could effect staining is a necessity. The fact that most needle biopsies are taken with needles and provide very small amounts of tissue to work with have made it increasingly important that the immunohistochemistry section of the laboratory stay up to date with the latest markers available to provide the most accurate and earliest diagnosis with the smallest amount of tissue.

#2. Leading LEAN

Janice Mahoney, HT (ASCP)

Many people have attempted to implement LEAN practices in their laboratories. Many lab directors and managers have read about or seen the astounding impact LEAN can have on eliminating waste, reducing inventory, reducing TAT, increasing productivity and the reduction of errors. These same Lab Directors and Managers often give directives to supervisors and team leaders to implement LEAN. How do you go about doing it? What do you do first? How do you address the resistance of the techs doing the daily work? How do you know if you have done all you can? How do you measure your improvements? How do you "maintain the gains" of implementing LEAN? It is difficult to make new habits and to break the old ones. It is human nature to want to revert to old, comfortable way of doing things when we are stressed or overworked. Knowing that leading a LEAN team is different than leading a traditional team is half the battle. This workshop will assume a basic understanding of LEAN and will go into depth about how to lead a LEAN team and how to maintain the gains. Participants will learn the value of continuous improvement of LEAN processes and the involvement of the whole team.

#3. Fixation and How it Effects Staining

Monty Hyten, HT (ASCP)

This presentation will provide different types of fixatives, some of their properties and comparative photomicrographs. Some basic information on fixatives and how they work. Photomicrographs of H&E stained sections, special stains and IHC slides will be provided. All tissues are from animal tissues but are very comparable to human.

#4. Mohs at a Glance (Note: this workshop will have limited attendance)

Gina Rodriguez, HT (ASCP)

(Sponsored by Leica-Biosystems Division)

This course consists of, the history of Mohs Surgery and understanding the methodology behind this surgical procedure. Why is there a need for Mohs Surgery cosmetically and its functional importance. The determining who is the right candidate for Mohs Surgery. Choosing from the various techniques, mapping, inking and troubleshooting. Proper staining and special stains essential for optimal slide interpretation. The troubles experienced when performing Mohs. What options are available when clear margins are not attainable. Proper documentation and instruction needed for CLIA and OSHA inspections.

#5. Panel Approach to Immunohistochemistry

Leslie Apa,

(Sponsored by Cell Marque Corporation)

This workshop will discuss the purpose of panels and their importance as related to understanding antibodies and their applications. The majority of the workshop will cover specific panels either presented as an immunophenotypic algorithm, flowchart algorithm, or grid. Within the panels I will point out important markers and the reasoning behind why laboratories should be running them as a panel.

#6. Basic H & E and Special Stains Theory

Peggy Wenk, BA, BS, HTL (ASCP) SLS

Histology staining is all based on the chemistry of the dyes and the other reagents in the solutions, along with the biochemistry of the tissue and disease being stained. When a stain is working right, there's usually no need to understand the chemistry of the procedure. However, when the stain isn't working – that's when the knowledge of the theory of staining is helpful, and helps to separate the competency of the histotechs doing the staining. This talk will start with very basic chemistry, and slowly build participants' knowledge of staining theory, so that they can begin to troubleshoot and problem-solve staining errors. Stains to be discussed include common histology stains, such as the H&E, Gram stains, carbol-fuchsin, PASH, trichromes. Prussian blue (iron) and oil red O.

#7. How to Become a Specialist in Laboratory Safety, Even if You Don't Take the Exam

Konnie Zeitner, HT (ASCP) HTL, SLS

Have you considered taking the ASCP Board of Registry certification examination for Specialist in Laboratory Safety (SLS) but aren't sure what you need to know? Most Histology professionals already have a good background in laboratory safety. With some extra information on all those lab safety regulations regarding chemical safety and spill control, fire safety, waste management, biohazard control, ventilation and many more, you would have the resources to study for that certification. Additionally you would have the information needed to create a safe laboratory workplace. Although this workshop is based upon the content outline for the SLS examination, it is also meant for anyone who needs a general review of laboratory safety. A comprehensive list of resource materials will be provided. Therefore the goal of this workshop is two fold: to provide you with the resources to become a Specialist in Laboratory Safety and to help you create and maintain a safe work environment.

2010 TRI-STATE SEMINAR DESCRIPTIONS

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Please Note: Seminars are open to all attendees. Pre-registration for individual seminars is not required. Seminars will be held on Wednesday mid-afternoon with 2 seminar talks running simultaneously.

Wednesday, April 28th: 4:00 – 5:00 pm

Our Slice of the Green at the National Centers for Animal Health

H. Joel Hutcheson, PhD and Chris Rasmusson

In 1995, the USDA's National Centers for Animal Health organized a group of employees to promote the recycling of office paper that became known as the Green Team. Since then, this group of 21 volunteers has expanded into recycling all paper products, metals, plastics, glass, wooden pallets, and equipment. We have also become active in environmental awareness, conservation, and landscaping projects. For example, from October 2008 through September 2009, we helped to divert more than 64 tons of materials from landfills -- an amount that represents approximately 171 lbs. per employee. This presentation will provide an overview of our accomplishments, challenges, and ongoing projects; and will outline our current practices in reducing, reusing, and recycling materials associated with histological preparation, sectioning, and staining.

Wednesday, April 28th: 4:00 – 5:00 pm

Developing a New IHC Assay From A to Z

Traci DeGeer, BS, HT(ASCP), HTL, QIHC

(Sponsored by Ventana Medical Systems)

The objectives of this lecture are to discuss how to choose controls for assays, when to use blockers and the types of blockers available, and amplification. The lecture introduces a flow chart with a first pass to decide if the antibody is a good antibody for the lab to use. The second flow chart shows how to optimize the antibody if the lab decides it is one that will work for them. After the antibody is optimized it is up to the lab to establish their validation.

Wednesday, April 28th: 5:00 – 6:00 pm

Lab Math Madness

David Cavanaugh, HT (ASCP) HTL

This lecture will discuss all aspects of laboratory mathematics in the histopathology laboratory. This would include percent solutions, normal and molar solutions, solution dilutions, temperature conversions, and buffer solutions. Practical examples of each category will be given as a short quiz. Upon completion the participant will be able to perform basic lab mathematics in their laboratory setting.

Wednesday, April 28th: 5:00 – 7:00 pm

Background and Morphology Solutions for Researchers

Linda Dean

(Sponsored by Biocare Medical)

I will briefly discuss various tools to lessen or eliminate standard problems with background. These will include: correct antibody titration, serum blocks, casine blocks, peroxidase blocks, non peroxide peroxidase blocks, avidin biotin blocks, fewer steps less time avidin blocks, levamisole blocks. Standard problems with morphology including: post fixation, variable temperature and timings on HIER determined by tissue type and fat content, digestion variables and considerations. Animal tissue background solutions especially; IgG blockers, biotinylation of primary antibody, novel antibody clean-up. Animal tissue morphology considerations focusing primarily on species specific HIER, tissue type specific HIER, post fixation and a floating tissue overview. Fluorescent antofluorescence solutions: especially Sudan Black, wavelength consideration.

Wednesday, April 28th: 6:00 – 7:00 pm

Waste Management for the Histology Lab

James Taylor

(Sponsored by B/R Instruments Corporation)

All histology labs use organic solvents such as xylene, xylene substitutes, alcohols, and formalin. Some of these solvents are expensive to purchase and fluctuate with the price of energy needs. The costs for the disposal of these solvents have become more expensive than the purchase costs. This seminar will provide instruction on how to identify and collect solvents for recycling from the processor and stain lines. The attendee will learn what solvents can be recycled. They will also learn the why some solvent mixtures should never be recycled. They will also learn QC procedures for the laboratory. This seminar will provide the fundamentals for starting a solvent recycling program in a pathology department. The attendees will become educated in the different recycling processes and will be able to make informed decisions when purchasing recyclers.

