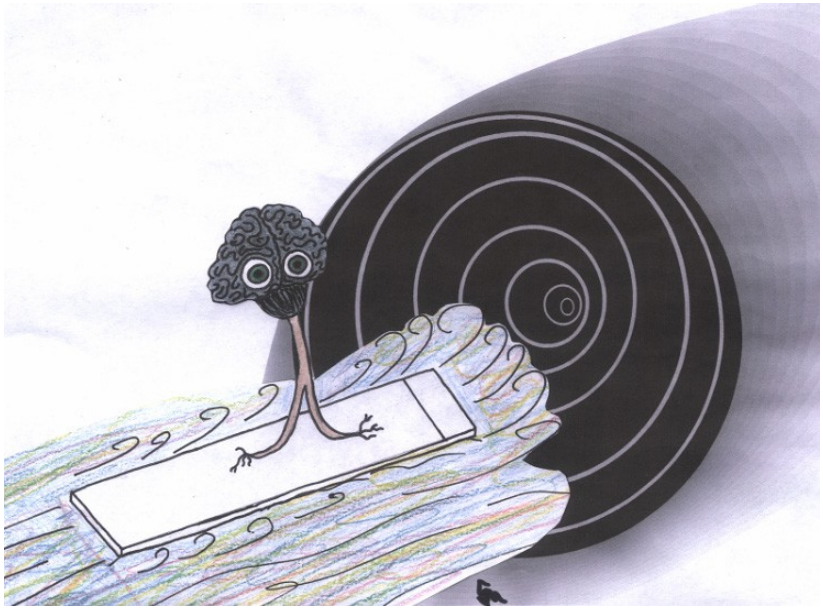
New York State Histotechnological Society

On Stage

Volume 30, Issue 2, Spring 2011

NYSHS ANNUAL SPRING SYMPOSIUM

"SLIDING INTO THE FUTURE"



May 14, 2011
Desmond Hotel and Conference Center
Albany, NY

OnStage is published quarterly by the New York State Histotechnological Society for its membership. Contributions, suggestions and advertisements are welcome. Please visit the NYSHS website for submission information and guidance. Permission to reprint is granted as long as source and author are acknowledged and a copy of the reprint is sent to the editors. Articles without bylines are written by the editors. Please submit manuscripts to the editor-in -chief:

Amy Farnan pita444@yahoo.com

Deadlines for Submission are:

December 1 – Winter

March 1 - Spring

June 1 - Summer

September 1 - Fall

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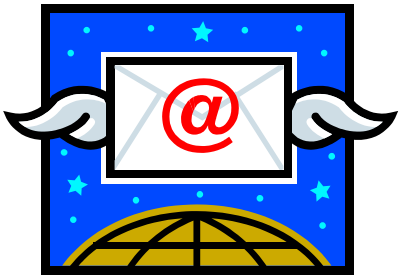
Inside this issue:



From The President

It was with great sadness that we received the news that Charles "Chuck" Churukian passed away late this February. With a career spanning over 50 years, the "guru" of special stains has made significant contributions to our field. A founding member of the National Society for Histotechnology, he had authored or co-authored over 50 manuscripts and lectured nationally and internationally. His *Manual of Special Stains* is on shelves of pathologist offices across the country. He has won numerous national awards and most recently the *Histotechnologist of the Decade* from NSH this past fall. We were so fortunate to have this caring and talented individual as a member of the New York State Histology family, he will be missed by all who knew and loved him.

We have a great educational meeting set for the Desmond in Albany this May. We start with a lecture on Digital Pathology, an area that has been receiving a lot of attention in the media. The government's effort to modernize the nation's health care system makes this an important topic that we all need to stay abreast of. We have other important topics, from Dr. Kari Reiber, the chief ME of Dutchess County talking about the significance of anatomic injury patterns in forensic investigations, to Dr. Joseph Dudek talking about personalized medicine for the treatment of lung cancer, another hot topic as we move toward the molecular medicine era. We also have excellent technical sessions on hard tissue, special stains and solvent recycling. We are trying a new one day meeting format, hopefully a more affordable approach for all. As always, we have a lot of vendors attending so be sure and pay them a visit and check out their new offerings. We have over $1500 in scholarships and awards to give away to help our members get the educational support they need. There is still time to apply. This going to be a jammed packed day of education and networking so we hope to see you all there!

The Society has also been busy with other activities. We are diligently working on creating a new website for the society. We hope to launch the new site shortly after the meeting but still have quite a bit of work ahead of us, so stay tuned for further updates. Our message board continues to grow, with over 200 subscribers, it has become a great resource for news and updates in our field. We also have an election coming-up with multiple positions open. Please consider running for a position, we are always looking for help in managing this great organization. If you can't run for a position, consider volunteering some time, there are plenty of committees that can always use volunteers. As always, if you have questions or concerns, do not hesitate to contact any of the officers or directors. We look forward to seeing you in Albany and warmer weather ahead.

Luis

In Memoriam Charles J. Churukian 1928-2011

Brighton: February 23, 2011 at age 82. Predeceased by his parents, Joseph and Christine Aintablian Churukian, and sister, Sally Churukian Taroni. He is survived by his wife of 41 years, Irene Billings Churukian, and his sister, Rose Churukian Milone as well as sisters-in-law, nieces and nephews. Charles will be sadly missed by family and friends.

Charles served as a heavy machine gunner in World War II, receiving the Army of Occupation Medal and Victory Medal. Teacher, mentor, poet, editor, innovator, "guru of special stains", Charles worked in histology laboratories for 54 years and supervised the Histotechnology Lab at the UR Medical Center for the last 40 years. He was recently presented with the "Histotechnologist of the Decade" Award by the National Society of Histotechnology for his contributions to the laboratory science field having numerous publications, presentations and awards to his credit. He devoted his career looking for ways to modify the art of special stains for the benefit of patient care. In addition to his professional career, Charles gave spiritual guidance to inmates through his jail ministry. In lieu of flowers, donations may be directed to Good News and Jail Ministry of the Rochester Area, AMAA Scholarship Fund (for university students in Armenia), Asbury Outreach Programs (Dining Caring Center, Storehouse) or James P. Wilmot Cancer Center. To share a memory of Charles visit www.anthonychapels.com.

Charles' family would like to thank the staff at the UR Wilmot Cancer Center, and Lifetime Care for their loving, compassionate care.

NYSHS ANNUAL SPRING SYMPOSIUM
May 14, 2011
Desmond Hotel and Conference Center
Albany, NY

The NYSHS has planned a wonderful program for this spring allowing its members to receive 6 CEU's of credit in one day! You will be receiving your programs in the mail very soon but we would like to give you the meeting overview for those that need to submit for funding.

1) Virgil Hernadez CT (ASCP) Digital Pathology Specialist, Ventana Medical Systems
Title: Digital Pathology 101
Abstract: This course will introduce meeting participants to the exciting new world of Digital Pathology. This 1 hour presentation will provide broad overview of basic system hardware and software required for converting prepared slides to whole slide images. Participants will become familiar with key applications of Digital Pathology which include: Telepathology, teleconsultation, web conferencing, IHC analysis, tumor board, and robotic microscopy. Current market trends in Digital Pathology adoption and products will be discussed.

2) Dr. Kari Reiber, Chief Medical Examiner, Dutchess County, NY. **Dutchess County Department of Health**
Title: The role of Histopathology in Forensic Postmortem Investigations
Abstract: The ever increasing popularity of crime fiction has done little to improve the public's understanding of forensic pathology. Fictional dramatizations focus on the forensic sciences rather than on forensic pathology, and often confuse the two. The popularity of "forensics" is having a positive effect, in that many young people are opting for a career in science. Unfortunately the so-called "CSI effect" is having a negative impact in the courtroom as a result of the unrealistic expectations of some jury members. Fictional medical examiners have many unrealistic identities and are portrayed as gun-toting vigilantes, forensic technology wizards, glamorous law enforcement officers, or cranky eccentrics, but almost never with their one essential instrument: the microscope. One forgets that forensic pathologists are actually pathologists specialized in the anatomy of injury and injury patterns. When investigating sudden, unexplained, and violent deaths, the forensic pathologist is mandated by law to perform a postmortem examination which generally consists of an autopsy. A complete forensic autopsy usually requires an external examination, an internal examination, a microscopic examination, and a comprehensive toxicological analysis. The purpose of this presentation is to define forensic pathology and forensic science, to clarify the actual role of the forensic pathologist and to illustrate by way of specific examples the crucial role of histopathology in forensic postmortem investigations.

3) Joseph Dudek, M.D. , US Oncology Incorporated – New York Oncology Hematology.
Title: Personalized Approach for Non-Small Cell Lung Cancer
Abstract: The treatment of non-small cell lung cancer will be reviewed and a discussion of how systemic treatment is determined based on the histology and stage of the tumor. The importance of adenocarcinoma, squamous cell carcinoma and NOS will be discussed in regard to first line and second line systemic treatments. There are definite differences in regard to the choice of chemotherapy and its effectiveness in squamous and non-squamous histologies. We will also discuss EGFR mutations and there can influence on choice of systemic therapy for non-small cell lung cancer. Tyrosine kinase Inhibitors provide an alternative systemic treatment for patients with EGFR mutations. Toxicities of the treatment will be reviewed. Lastly the EML4- ALK mutation will be reviewed and its influence on potential treatments will be discussed.

4) Valantou Grover, HT, HTL(ASCP), PA, MBA, Biosciences Product Line Manager, Polysciences, Inc.
Title: The Right Stain, Troubleshooting Histology Stains
Abstract: When routine stains go wrong, pathologists return slides to the responsible department for restaining: histology (routine and special stains), cytology or hematology. The repeat staining process on the old and/or the

new slides reduces the expected turnaround time. Processes exist far beyond the control of the technician/ technologist, not related to their skill, technique, and/or experience. Inconsistent staining may occur because townships change additives in water supply systems or filtration processes, mistakes in manufacturing processes as simple as water temperature variance, market supply, market demand, quality of the raw materials, availability of raw materials, incorrect shipping department standards, and/or the environment. The presentation allows lab professionals to examine troubleshooting techniques considered "outside the box" or scope of what is routine troubleshooting in the lab. Staff shortages, pressure on pathologists and lab professionals by clinicians, and/or specimen diagnosis quotas allow laboratory validation standards to be completed on a stain or protocol/process developed by another entity other than the end-user. Commercial batches are manufactured in such large quantities, that a reduction in lot to lot variation makes validation more accurate and allows for accurate reproducibility of the stain process, regardless of which end user is performing the staining process: the human and/or the analyzer.

5) Susan Ryan, HTL(ASCP), Genzyme, Inc.

Title: Hard, Harder and Hardest: Choosing the right process for your bone project

Abstract: Processing tissue containing bone and cartilage has challenged histologists throughout the years. It is our responsibility to understand these challenges, know the tissue and cell components and provide the pathologist and/or investigator with quality stained slides. In recent years digital pathology has created new opportunities for routine labs to incorporate different processing methods for bone. In this workshop we will discuss decalcified (paraffin and frozen) and undecalcified (methyl methacrylate and Epon) methods for processing bone that best fits the diagnosis and or analysis. Detailed protocols will be presented pertaining to processing and staining of samples containing bone and cartilage. We will discuss the common problems with both methods and share some of the "tricks of the trade". We will focus on aiding pathologists and/or investigators with understanding diseases such as rheumatoid arthritis, osteoarthritis, renal osteodystrophy and osteoporosis. Upon completion participants will 1) identify tissue components and cells 2) identify which processing procedure best fits the diagnosis or analysis 3) identify the staining differences in each processing methods 4) identify artifacts in each method.

6) Amy Farnan, HT (ASCP), Supervisor, Histology: Albany Memorial Hospital/Samaritan Hospital, North East Health

Talk Title: Formalin Recycling: "Is your lab safe?"

Abstract: The recycler is installed; everyone has been trained on its use and its go time right? Wrong! How many of you that have a recycler had safety training before you started using the recycler? In this seminar learn what measures your lab should have in place to keep your employee's safe and the histology laboratory regulatory compliant.

Participating vendors as of publication date: Neogenomics laboratories, Tech One Biomedical Services, Azer Scientific, Electron Microscopy Sciences, Source Medical Products, Polysciences, Leica Biosystems Richmond, Sakura VWR International, Newcomer Supply

Registration opens at 7:00-10:00 AM
Registration price includes: All sessions and lunch.
$100.00 /member
$135.00/non-member
$60.00/ student

Desmond room rates: $129.00/ night
When booking your room reference group ID# 11O344 (O not a zero)
Booking deadline is April 21, 2011
Desmond contact number: 1-800-448-3500
www.desmondhotelsalbany.com

Hope to see you all there!!

Decalcifying Solutions

Cat#	Description
s169K	Buffered Formic Acid
s170	Decalcifying Solution 5% Nitric Acid
s172	Decalcifying Fixative (HCl-Formic Acid in Formalin)
s171	Decalcifying Solution (Formic-HCl in Distilled Water)
s172D	EDTA Disodium Salt Formalin
s2593	Formic Acid-Formalin
s2516	Decalcifying EDTA pH 7.2 - 7.6

New Tests Help Brain Tumor Patients Get Diagnosis and Bearings

Mahlon Johnson, MD, PhD
University of Rochester Medical Center, Rochester, New York

I'd heard the troubling story of young Ashley Hayes at the Neuro-oncology conference. The five-year-old only child had suddenly taken ill: headaches, vomiting. "Bear", her soft companion, watched helplessly from the bedside rocking chair, "fur" matted by hugs and tears. After a restless night, Ashley's harried Mom took her with Bear, to the Emergency Room of their small town. Maybe it was just a virus. But her Mom worried about dehydration and wanted some medicine. Because the ER Doc found signs of increased intracranial pressure but no fever, he ordered a cranial CT scan. He hoped it would show little. But it revealed an enhancing area in Ashley's brainstem. It was a "brain tumor", the young neurosurgeon said, probably malignant since most enhancing tumors were. Ashley probably had a year, maybe two.

Ashley's future rested on a scheduled stereotactic biopsy. If the tumor was a World Health Organization (WHO) grade I pilocytic astrocytoma or some other low grade glioma, a major resection would be attempted and her long-term prognosis might be good. If it was an infiltrative WHO grade II or III glioma, removing most of it would be difficult since collections of cells grew around vital brainstem areas controlling functions like breathing. The neurosurgeon quietly explained that stereotactic biopsies involved pushing a tiny needle thru a tiny hole in the skull to the site of the "bad area". He told Ashley it wouldn't hurt but Bear, lining bulged out from a break in his stitches, wasn't so sure. What the surgeon didn't say was that the neuroimaging studies used to guide the needle couldn't tell exactly where the needle was. And, as you know, histologically, most tumors show a continuum of abnormalities from edge-associated reactive to low grade or malignant features. So the needle might take tissue from an area with changes reactive to the tumor rather than tumor per se. Usually 2 or 3 rice-grain sized pieces of tissue are removed for processing and staining. What the surgeon didn't say was that while these biopsies cause less harm to the patient, they are often challenging for Pathology since we often have little tissue to stain, study and analyze by immunohistochemistry or fluorescence in situ hybridizarion (FISH).

The biopsy was small. Malignant-looking cells and malignant appearing vascular changes were present. But these could also be seen in grade I pilocytic astrocytomas as well as grade III tumors. That is why pilocytic astrocytomas are often misdiagnosed with catastrophic consequences since the diagnosis of malignancy prompts more toxic treatments that can damage the brain, in the case of a misdiagnosis, needlessly. Fortunately new tissue techniques performed by histotechs may increase diagnostic accuracy.

Ashley's biopsy showed changes in the continuum of a pilocytic astrocytoma or higher grade astrocytoma. Typical immunohistochemical stains such as GFAP and Ki-67 (MIB-1) were not definitive since reactive glia and gliomas can both show similar overlapping immunostaining. But carefully prepared immunohistochemistry showed no IDHR132 immunoreactivity. This information, combined with clinical features, neuroimaging findings and other immunohistochemistry suggested the tumor was a grade I pilocytic. That meant it might be gingerly resected. And any significant recurrence wouldn't happen for years - more time for the brain to finish growing and better treatments to be developed.

The number of new antibodies against abnormal proteins, along with DNA and RNA probes identifying genetic abnormalities is growing and being cautiously certified and used in Histology labs. When performed skillfully, they can facilitate diagnosis and/or predictions about response to therapies or survival. Recent studies have found the World Health Organization (WHO) grade II and III astrocytomas and oligodendrogliomas commonly have a specific mutations in the isocitrate dehydrogenous (IDH) gene that alters the site where isocitrate binds, resulting in an abnormal protein IDH R132. This protein can now be detected in formalin–fixed paraffin embedded tissue sections by immunohistochemistry. Reactive gliosis, (omit comma) that radiographically and microscopically mimics a grade II astrocytoma or oligodendroglioma makes the normal IDH protein which is not detected by the IDHR132 antibody. FISH analysis of the 7q34 band containing the BRAF-KIAA1549 gene fusion product is another new test that will help differentiate gliosis or WHO grade I pilocytic astrocytomas from WHO grade II astrocytomas.

New studies suggest that combining IDH R132 immunohistochemistry with BRAF-KIAA1549 FISH provides the most sensitive and reliable analysis to distinguish between gliosis or pilocytic astrocytoma and grade II or III gliomas. This is important since reactive gliosis is common and occurs in many situations where a tumor might be

There Is still Time…
Apply for a NYSHS Award
Deadline Extended 4/15/2011 !

Recipients are presented their award at the New York State Histotechnological Society annual spring meeting. To be eligible, **please indicate which award your are applying for** and send:

a. A letter from you showing evidence of your commitment to continuing education, specifying the award you are applying for.
b. Two letters of recommendation from supervisor, pathologists, or histotechnologist.
c. Name and address of your current employer or school, and your current address.

This year's awards include

Golf Coast Instrument Company: Two awards are available and offered to histology student who wish to attend a professional meeting. Each $500.00 award is sponsored by Gulf Coast Instrument Company and must be used to defray educational expenses.

Laboratory Product Sales: The award is presented to a histology student or a histotech who wishes to attend a professional meeting. The $200.00 award is sponsored by Laboratory Product Sales and must be used to defray educational expenses.

Leica Microsystems Award: The award is presented to a histology student or a histotech who wishes to attend a professional meeting. The $200.00 award is sponsored by Leica Microsystems and must be used to defray educational expenses.

Sakura: The award is presented to a histology student or a histotech who wishes to attend a professional meeting. The $250.00 award is sponsored by Sakura and must be used to defray educational expenses.

Source Medical Products: The award is presented to a histology student or a histotech who wishes to attend a professional meeting. The $250.00 award is sponsored by Source Medical Products and must be used to defray educational expenses.

A mentor/teaching award will be given annually to an individual dedicated to teaching/mentoring in histotechnology the qualities of a dedicated teacher, sharing their knowledge with others and advancing the growth of the profession of Histotechnology. Nominee's to be included instructors, technician/technologist, or supervisor. The $250.00 award is sponsored by Source Medical Products and must be used to defray educational expenses.

Source Medical Products will also sponsor **2** students registration to NYSHS annual Spring Meeting.

Thermo Fisher Scientific: The award is presented to a histology student or a histotech who wishes to attend a professional meeting. The $200.00 award is sponsored by Thermo Fisher Scientific and must be used to defray educational expenses.

Applications are available on our website, http://www.nyhisto.org, or you may email Sarah Mack directly. We prefer e-mail submissions of applications and letters. Please send documents to:

Sarah Mack
Sarah_Mack@urmc.rochester.edu
Or
Sarah Mack
8162 Quanz Road
Wayland, NY 14572

First Call for Constituent Society HOD

Delegates and Alternates

The annual meeting of the House of Delegates of the National Society for Histotechnology will convene on **September 21, 2011** at 7:00 PM Cincinnati, Ohio. Constituent Societies may seat the President of the society or Presidential alternate, and one (1) delegate or alternate for each fifty (50) NSH members, or any part thereof, in that state. The requirements are

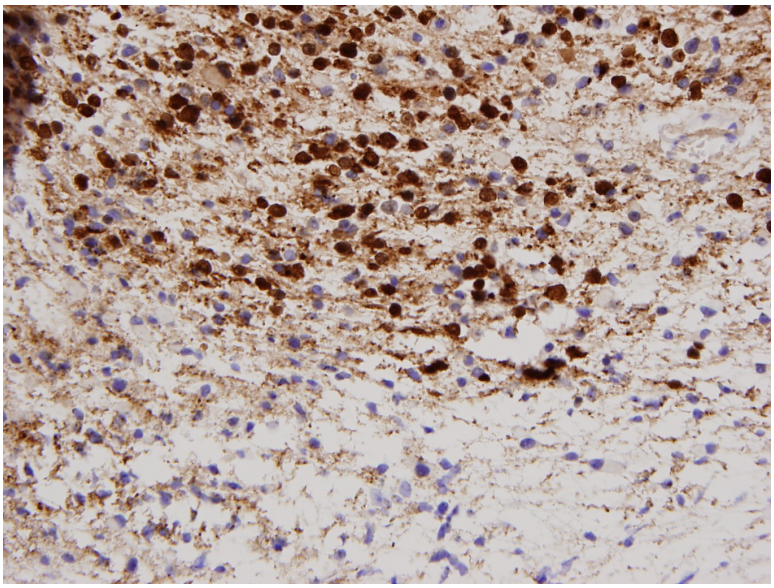
The President of the Society or Presidential alternate and all individuals selected as delegates or alternates must be current active NSH members in good standing for at least one (1) year (this is interpreted as a calendar year) prior to the meeting of the House of Delegates in order to be eligible to serve in the House. Article I, Section 2, Part B of the Bylaws states: ***"Active member in good standing: A member of this Society who has an active membership classification and whose dues are paid in full for the current year and who is not under suspension. Only active members shall be entitled to vote, hold office, act as delegates, or serve on any board or committee."***

Names of the Constituent Society President and/or alternate, all delegates and alternates must be submitted on and received by the committee no later than **July 22, 2011.** (All names must be received at least sixty (60) days prior to the HOD meeting)

If you would like to serve as a delegate, please contact

Luis Chiriboga at:

litepath2000@yahoo.com



IDHR132 immunoreactivity in infiltrating astrocytoma cells on the edge of the tumor

suspected. Reactive gliosis may be seen in many forms of brain injury i.e. epilepsy, trauma, strokes, multiple sclerosis or brain irradiation. It also occurs around most brain tumors. Thus, having ancillary techniques performed in the immunohistochemistry lab is helpful in making a diagnosis.

Tissue analysis of the O-methylguanine-DNA methyltransferase (MGMT) gene encoding a DNA repair enzyme also offers great promise of predicting the response of gliomas to therapies and prognosis. Many chemotherapies intercalate into the DNA of tumor cells producing a DNA mismatch resulting in apoptosis or tumor cell death. Some tumors have high levels of MGMT which blocks the damage of chemotherapies such as temozolomide used for brain tumors. Consequently, patients with high levels of MGMT respond less to chemotherapies that patients with gliomas that have low levels of MGMT. Numerous techniques are being refined to analyze MGMT levels and hopefully the immunohistochemical studies you perform, combined with other techniques, may allow histology labs to identify relative levels and the number of tumor cells expressing high levels of MGMT. Unfortunately, at the moment, current tissue techniques are compromised by technical and interpretative issues. Nonetheless, with improved techniques, this is likely to be another tool, applied by histotechs that will contribute to the care of patients with brain tumors.

Additional immunohistochemistry, such as to INI-1 protein, is also improving diagnostic accuracy in other malignant pediatric tumors. A mutation or deletion in the MSARCB1 (INI1) gene on chromosome 22 is characteristic of an atypical teratoid/rhabdoid tumor (AT/RT) resulting in loss of INI-1 protein. This is a highly malignant tumor of children that closely resembles several other tumors that occur in the same brain regions, such as primitive neuroectodermal tumors (PNETs) and choroid plexus carcinomas which still make the protein. In the past many ATRTs were misdiagnosed as these entities and sometimes treated suboptimally.

Certainly, histotechs will be offering even more new immunostains that facilitate diagnosis and provide prognostic information. These will give histotechs more opportunities to contribute to the treatment and life planning for those afflicted with brain tumors.

Ashley, her mom and the exhausted Bear huddled anxiously in the Neurosurgery Clinic exam room. It had been four days since the biopsy and they'd been warned that the results might take a week. Bear stood on Ashley's leg, hugging her as best he could with his short arms. Mom whispered, stroking the bandage on Bear's head. As the neurosurgeon entered, he paused and then explained, "The pathologists and lab people did some special new tests called immunohistochemistry and FISH. From these, its clear that the tumor was grade one - benign. I didn't want to tell you 'til I was sure." He said he'd have to try and get it all out now. But it could have been much worse ..... (or even a nondiagnostic biopsy without the help of the histotechs).

Now it was up to the neurosurgeon …and Bear.

References:

Korshunov A, Meyer J, Capper D et al. Combined molecular analysis of BRAF and IDH1 distinguishes pilocytic astrocytoma from diffuse astrocytoma. Acta Neuropathol 1118:401-405, 2009

Camelo-Piragua S, Jansen M, Ganguly A et al. A sensitive and specific diagnostic panel to distinguish diffuse astrocytoma from astrocytosis: Chromosome 7 gain with mutant isocitrate dehydrogenase 1 and p53. J Neuropathol Exp Neurol 70:110-115 2010

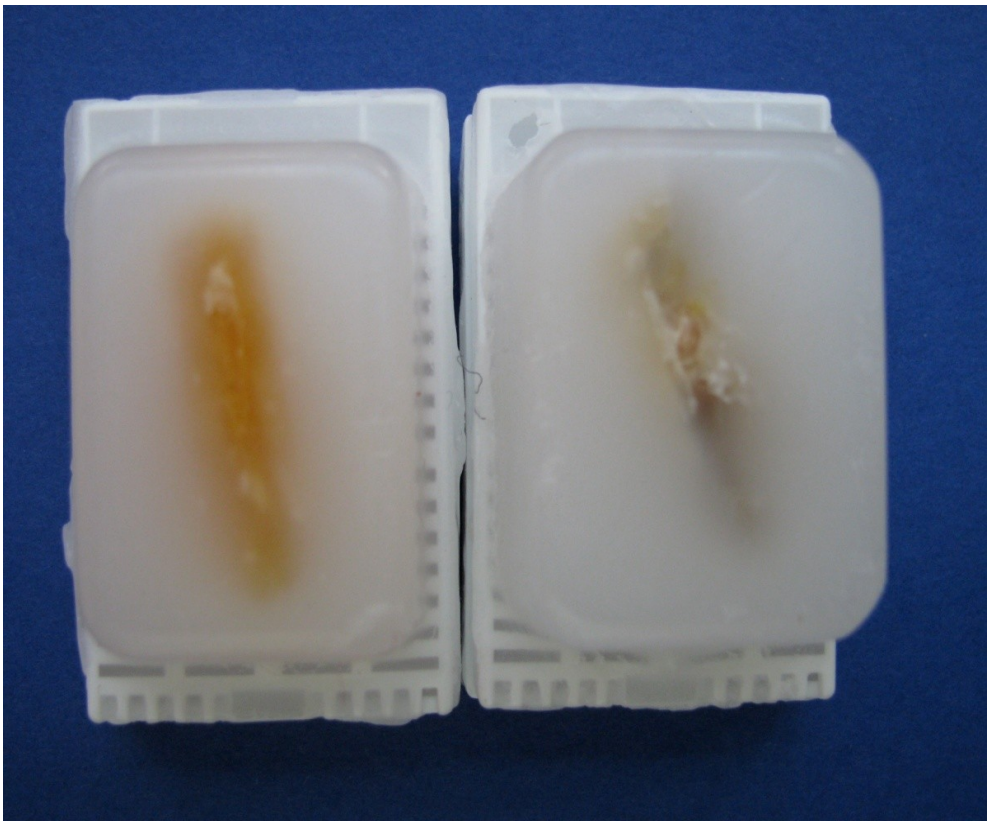
von Deimling A, Korshunov A, Hartmann C. The next generation of glioma biomarkers:MGMT methylation, BRAF fusions and IDH mutations. Brain Pathol 21: 74-87, 2001

Proper Processor Maintenance Will Keep Your Good Tissue from Going Bad

By Sarah Mack

Working in the field of histology, whether in a clinical or a research lab, we all know the importance of accurate record keeping. The tissue processor is a vital part of the histology lab, as is the processor log. Included in this article is some information that should be kept in a processor log, to ensure your good tissue won't go bad.

Figure 1: Example of well (left) and poorly (right) processed tissue blocks



Both of the blocks in Figure 1 are rat spine, and were processed on the same day, during the same run. Note that the block on the left was properly infiltrated with paraffin; while the one on the right was not. The paraffin in the last processor station was not full enough to cover all of the tissue. The cassettes at the front of the retort (A) were covered with paraffin, while the cassettes to the rear were not (B). Because the retort did not fill with the required volume of paraffin, the retort temperature became too high, causing the tissue to become hard. Therefore, the tissue in cassette B was not properly infiltrated with paraffin. Accurate records documenting paraffin changes and maintenance could have prevented the "Good Tissue Gone Bad."

If tissues are left in paraffin or in a high concentration of alcohol too long, the tissues can become dried out. Figure 2 below shows an example of processing times, allowing you to choose the optimal program for your tissue, ensuring proper processing and infiltration.

NYSHS 2011 ELECTIONS

The Nominations Chairperson is accepting nominations for:

Vice-President
Treasurer
Three Members of the Board of Directors

To be nominated, he/she must be a member of NYSHS for at least one year and currently in good standing. They should have expressed a willingness to serve the society. If you would like to nominate someone, please fill in the nomination form below.

I _____ nominate

_____ for the NYSHS office of:

_____

He/She has been a member of NYSHS for at least one year and is currently in good standing. He/She has also expressed a willingness to serve the society.

Nominator's Signature_____

This Form may be used to submit a Nominee
NOMINATIONS MUST BE RECEIVED NO LATER THAN

SATURDAY MAY 15TH

Please return completed forms to:
Kathleen Caleri
57 Azalea Drive
West Seneca, NY 14224

Figure 2: Suggested Processing Schedules

			#1 Adult Bone		#2 Cell Pellet		#3 Embryo	
Station	Reagent	Temp.	p/v	Infiltration	p/v	Infiltration	p/v	Infiltration
1	70% etoh	35	no	5 min	no	0 min	no	5 min
2	70 % etoh	35	no	5 min	no	0 min	no	5 min
3	70 % etoh	35	no	30 min	no	5 min	no	15 min
4	80% etoh	35	no	30 min	no	5 min	no	15 min
5	95% etoh	35	no	40 min	no	8 min	no	15 min
6	95% etoh	35	no	40 min	no	8 min	no	15 min
7	100% etoh	35	no	40 min	no	10 min	no	15 min
8	100%etoh	35	no	40 min	no	10 min	no	15 min
9	xylene	35	no	45 min	no	15 min	no	15 min
10	xylene	35	yes	30 min	yes	10 min	yes	15 min
11	paraffin	60	yes	30 min	yes	15 min	yes	15 min
12	paraffin	60	yes	30 min	yes	15 min	yes	15 min
13	paraffin	60	yes	30 min	yes	15 min	yes	15 min
14	paraffin	60	yes	30 min	yes	0 min	yes	15 min
15	Wax Drain							
16	Cleaning Xylene							
17	Cleaning ETOH							
18	Condensate							
Total Run time			7 hours 5 min		1 hour 56 min		3 hours 10 min	

Each setting above: reagent, temperature, pressure/vacuum, and infiltration, all play an important roll in processing. If one of these is incorrect it will have a negative affect on the processing of the tissue. When the concentration of alcohol is too high, it will over-dehydrate the specimen causing it to dry out, especially biopsy tissues. With a low alcohol concentration the tissue will not be dehydrated enough. Improperly dehydrated tissue leaves unbound water in the tissue causing insufficient, or lack of, paraffin infiltration resulting in under-processed tissue. If the temperature of the alcohol is too high the tissues will shrink and become brittle. Pressure and vacuum are used during the paraffin steps to ensure proper infiltration of the paraffin into the tissues. Without this option, the impregnation may not be complete and the tissues can be mushy thus distorting the morphology.

These issues demonstrate the importance of diligent record keeping of processing and paraffin temperatures, and monitoring the quality and quantity of solutions available. To maintain cell morphology, it is imperative to monitor alcohol concentrations and to verify that temperatures are maintained, thus ensuring proper fixation, dehydration and infiltration.

Figure 3 below is an example of a usage log. This may be utilized to record any errors that may occur during a run. This also allows you to compare samples run on the same date to one another if issues arise.

Figure 3: Example of processor log

Date	Experiment #	User	Type of Tissue	# cassette	program #	Comments

When your solutions are not changed often enough, your tissue will not be infiltrated/penetrated well, causing it to be brittle, dry and very difficult to cut. The figure below can help to ensure optimal proc-

New York State Histotechnological Society
Incorporated in 1972

NYSHS GENERAL MEMBERSHIP MEETING MINUTES:
Buffalo, NY
May 15th, 2010

President Mary Georger called the meeting to order at 12:13 PM. Mary welcomed all the members and the minutes from the April 25th, 2009 meeting were read.

Treasurer: Michelle Fuller reported that the ending fund balance for the period April 1st-March 31st 10 was $14,753.37. The ending fund balance for the period Oct 1st- March 31 '10 was $14,753.37.

Membership Report: Linda Chen reported that there are 224 members in good standing with 5 student members.

Newsletter Report: Amy Farnan reported that June is the next issue for new members. She is working on a "student highlight" for when students graduate so please give her some information. If any of the vendors are interested in placing ads please see Amy and if any members are not receiving their newsletter please contact Amy and she will update your information.

Awards: Amy reported for the committee, there were four awards this year. The Dominic Europa, which will go to Laurie Marien. 2 from Gulf Coast, which are $500 each and will go to: Carrie Lindberg and Dominique Colbert. The Thermo Scientific award, which is also $500, will go to Loralie Schad. The LEICA Microsystems award, which is $200 will go to Jenna Van Der Volgen. The student winners are not here because it is graduation weekend; they will be notified after the meeting.

Nominations: Mary Georger reported that the current seats up for election are: President, Membership and Corresponding Secretary and 3 Board of Directors seats.

Region I Director: Angela Fogg reported that this year was our first Histotechnology Day and she will be getting additional information on making this an official day.

Future Meetings: Mary Georger reported
In 2011- we will be in Albany,
2012- Long Island
2013- there will be no state meeting because the NSH meeting will be in Region I

Mary wanted to thank Kate Caleri and Sandy Mendel for chairing the meeting; it was a great program and venue. She also wanted to thank the vendors for their continued support.

We will be planning on having two meeting in 2011. The second meeting in the Fall would be a strictly educational meeting with no vendor participation and we hope to have it in a different location than the Spring meeting in Albany.

The meeting adjourned at 12:27PM.

essing. When solutions are changed or rotated, initial and date the boxes.

Figure 4: Tracking log for solution exchange

C= changed solution		R = rotated solution	
Solution	Station #		C or R
70% etoh	1		
80%etoh	2		
95% etoh	3		
95% etoh	4		
100% etoh	5		
100% etoh	6		
100% etoh	7		
Xylene	8		
Xylene	9		
Xylene	10		
Paraffin	11		
Paraffin	12		
Paraffin	13		
Paraffin	14		
Flush Xylene	15		
Flush etoh 16	16		
Flush h20	17		
Waste	18		
Fume h20	19		

Good record keeping is essential to proper processing and processor maintenance. When your tissue is not cutting or staining well, you can look at your processor log to help you troubleshoot. Your log book can also provide useful information when you are changing solutions, including solution order as well as a changing schedule. Poor processing will change the cell morphology, making tinctorial stains and immunohistochemistry tricky or even impossible to perform with consistent results. Record keeping is the best way to avoid "Good Tissue Gone Bad."

KUDOS TO OUR MEMBERS!

The following members are recent SUNY Cobleskill graduates that have successfully passed their ASCP Certification Exam. Congratulations to the new members of our Histology Profession!

Jenna Van Der Volgen: Histotechnician, Laboratory Alliance of Central New York: Liverpool, NY

Loralie Shad: Histotechnician, Southern NH Medical Center: Nashua, NH

Michael Holcomb, Histotechnician, Norfolk General Hospital, Sentara Healthcare: Northfolk, VA

NSH Quick Facts: Contact Hour Certificates

- NSH reconciles and maintains contact hours for NSH members AND non-members for each approved meeting (state, regional and national)

- NSH does not authorize or assign credit until the meeting sign-in sheets are returned to the NSH office

- NSH members will receive an email notifying them that their contact hour certificates are available online for immediate download through their *My NSH* account

- Non-NSH member attendees of the meeting will be mailed a certificate within approximately four weeks of receipt of completed meeting paperwork

- If an attendee loses their certificate:
  - Members may reprint from their *My NSH* account at any time
  - Non-members can request a new copy from NSH but there is a transcript fee

- Questions? contact NSH by email at histo@NSH.org or call 443- 535-4060

NYSHS Calendar of Upcoming Events

April 2011 Printable View

Add Event - Add Task

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 14	28 [Add] 12p Histochemistry 2011 Annual Meeting	29 [Add] 12p Histochemistry 2011 Annual Meeting	30 [Add] 12p Histochemistry 2011 Annual Meeting	31 [Add] 12p Histochemistry 2011 Annual Meeting	1 [Add] 12p Histochemistry 2011 Annual Meeting 12p NSH 37th Annual Symposium/Convention: Early Registration Opens 12p REMINDER: National Medical Laboratory Professionals Week 12p CLMA: Registration Deadline forThinkLab '11	2 [Add] 12p Histochemistry 2011 Annual Meeting	3 [Add] 12p Histochemistry 2011 Annual Meeting
Week 15	4 [Add] 12p Histochemistry 2011 Annual Meeting	5 [Add]	6 [Add]	7 [Add] 9a CLMA Seminar	8 [Add]	9 [Add]	10 [Add]
Week 16	11 [Add]	12 [Add]	13 [Add]	14 [Add] 7a Leica Microsystems 2nd Annual Educational Symposium	15 [Add]	16 [Add]	17 [Add]
Week 17	18 [Add]	19 [Add]	20 [Add]	21 [Add]	22 [Add]	23 [Add]	24 [Add] 12p National Medical Laboratory Professionals Week
Week 18	25 [Add] 12p National Medical Laboratory Professionals Week	26 [Add] 12p National Medical Laboratory Professionals Week 2p Safety in the Histology Laboratory: Free Webinar	27 [Add] 12p National Medical Laboratory Professionals Week 1p NSH 2011 Teleconfrence: THE EFFECT OF PRE-ANALYTICAL FACTORS ON IHC QUALITY	28 [Add] 12p National Medical Laboratory Professionals Week	29 [Add] 12p National Medical Laboratory Professionals Week	30 [Add] 12p National Medical Laboratory Professionals Week	1 [Add] 8a NYSHS Elections!

Previous Month | Next Month

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Advertising space is always available

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nyshsadcoordinator@yahoo.com
for more information

May 2011

Printable View

Add Event - Add Task

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 18	25 [Add] 12p National Medical Laboratory Professionals Week	26 [Add] 12p National Medical Laboratory Professionals Week 2p Safety in the Histology Laboratory: Free Webinar	27 [Add] 12p National Medical Laboratory Professionals Week 1p NSH 2011 Teleconfrence: THE EFFECT OF PRE-ANALYTICAL FACTORS ON IHC QUALITY	28 [Add] 12p National Medical Laboratory Professionals Week	29 [Add] 12p National Medical Laboratory Professionals Week	30 [Add] 12p National Medical Laboratory Professionals Week	1 [Add] 8a NYSHS Elections!
Week 19	2 [Add]	3 [Add]	4 [Add]	5 [Add]	6 [Add]	7 [Add]	8 [Add]
Week 20	9 [Add]	10 [Add]	11 [Add]	12 [Add]	13 [Add] 12p 2011 NYSHS Annual Symposium	14 [Add] 12p 2011 NYSHS Annual Symposium	15 [Add]
Week 21	16 [Add]	17 [Add]	18 [Add]	19 [Add] 12p 2011 Region 1 Conference & Symposium	20 [Add] 12p 2011 Region 1 Conference & Symposium	21 [Add] 12p 2011 Region 1 Conference & Symposium	22 [Add] 12p CLMA annual meeting, ThinkLab '11
Week 22	23 [Add] 12p CLMA annual meeting, ThinkLab '11	24 [Add] 12p CLMA annual meeting, ThinkLab '11	25 [Add] 12p CLMA annual meeting, ThinkLab '11 1p NSH 2011 Teleconfrence: WHAT'S SO "BIG" ABOUT MACROSECTIONS IN HISTOLOGY	26 [Add]	27 [Add]	28 [Add]	29 [Add]
Week 23	30 [Add]	31 [Add]	1 [Add] 12a Deadline for Submission: Onstage Summer Issue	2 [Add]	3 [Add]	4 [Add]	5 [Add]

Join The NYSHS Message Board

Want the latest news and info from the histotechnology field?
Join the New York State Histotechnology Society Message Board.
visit the message board website at
http://tech.groups.yahoo.com/group/ NYSHS1972/

Maine Society of Histotechnology

Topics Will Include:

-Immunostaining for p16: HPV, Cervix & Beyond
-Moving from Microtomy to Management:
You're in Charge, Now What?
-Emerging Molecular Technologies in Cancer Diagnostics
-Basic Instrument Maintenance in the Histology Lab
-Special Stains
-Research Histopathology
-LEAN Histology

Save This Date!!

May 19-21, 2011
Region 1 Histotechnology
Conference and Symposium
Hilton Garden Inn
Bangor, ME

www.mainesocietyofhistotechnology.org