As you may recall, a couple of months ago, the AAPA sent out the membership needs survey. The survey is one of the major communication conduits between you, the membership, and AAPA leadership. The survey results (over 180 pages of raw data with individual member comments) were forwarded to each Board member and committee chair, as well as the Executive Director and the Central Office. We truly value your feedback, and although there was an exhaustive amount of data to sift through, each leader was extremely efficient in analyzing the data–reinforcing our commitment to keep your needs at the forefront of our activities.

As we examined the trends within the membership needs survey, multiple objectives and goals were proposed. These become a part of our strategic plan. At present, the ambitious plan has five clear objectives with an average of four goals under each objective. In the interest of being transparent, we want to share the plan with you, the member (see page 3). Here, I'd like to provide some examples of how YOUR responses are driving our ACTIONS.
LETTER FROM THE EDITOR IN CHIEF

First, a thank you for the positive feedback I have received about the first edition of THE CUTTING EDGE. Everyone involved in the process worked very hard, and I appreciate their efforts as well.

The next step is establishing a peer review process. Once this is complete, authors of articles that appear in our journal are eligible for CME credit. I have a few peer reviewers in place already, however, more are required. If you have expertise in a specific subject, and would like to participate in this process, please contact me at journal@pathassist.org for more details.

This issue features information about some of the activities at the upcoming conference in San Francisco (see pages 8 through 11). Also you will find an update on the AAPA Strategic Plan. In addition to the regular columns, we have two submitted articles in this issue. If you are interested in submitting an article of your own, please see the AAPA website for submission instructions.

I would also like to thank Michelle Proctor for some of the photographs that appear in this issue.
First, the membership needs survey respondents (that is YOU), cited concern over the sustainability of what has been a very good pathologists' assistant job market. The multifaceted, corresponding ACTION plan includes a dramatic adjustment to the Public Relations Committee. We have always sent the AAPA booth to several national conferences. Henceforth, the booth will be appearing at more pathology related conferences. The booth will be redesigned with a higher level interactive interface so that we can customize the message we want to convey to the target audience. Our primary audience of choice is employers. This action expands our exposure and we hope to put you, our members, in front of more potential employers. As we present you to these potential employers, we will make sure that our presentation is reflective of the professionalism that this association represents. This is just one example of how we will address your concerns related to job market sustainability.

Second, the membership needs survey respondents (again, that is YOU) stated a desire for online continuing medical education and continuing medical education tracking. We reviewed available options thinking perhaps one of our partnering associations had a program, which we could endorse and participate with. However, in review the various offerings, we found little that specifically targeted you, the member. Moreover, we found gaps in the professional components of the reviewed offerings that contradicted the core values of the AAPA. Consequently, in response to your needs and our desire to promote the professionalism of pathologists' assistants, the corresponding ACTION plan includes developing and implementing our own online continuing medical education program with continuing medical education tracking. You can anticipate that the program will have you, the individual pathologists' assistant in mind because frankly, the AAPA does not serve anyone else!

In conclusion, please remember, this Association revolves around you as pathologists' assistants and your profession. Your needs become the needs of this association. Although we may not be able to address every individual need, we will do our best to address the needs brought forward. We are here to work as an association, on your behalf, to provide the tools and resources to expand what you do and your influence as an individual professional. We are your service provider. We are your representative.

### 2011 AAPA Strategic Plan

**Goal #1**

**Assess Needs of Regional Meeting Provider**

Board member oversight by Mike Sovocool

- Objective #1: Assess needs of regional meeting provider
- Objective #2: Explore/expand online PACE CME activities
- Objective #3: Foster/encourage CME provided by AAPA members
- Objective #4: Research feasibility of creating an AAPA Gross Surgical Pathology Procedure Manual

**Goal #2**

**Technology**

Board member oversight by Jon Bakst

- Objective #1: Webinar pilot
- Objective #2: Monitor conference attendance
- Objective #3: Rename Newsletter Committee and establish a process to create a peer reviewed journal
- Objective #4: PowerPoint Template
- Objective #5: Student Page

**Goal #3**

**Workforce/Vacancies**

Board member oversight by Bryan Radosavcev

- Objective #1: Value Added
- Objective #2: Expansion of the job market
- Objective #3: Target areas

**Goal #4**

**Licensure/Certification**

Board member oversight by Tom Reilly

- Objective #1: Licensure relevance and certification
- Objective #2: Job Hotline
- Objectives #3 & #4: Existing/current licensure issues

**Goal #5**

**Membership**

Board member oversight by Karen Riviello

- Objective #1: Enhance member communications
- Objective #2: Board presence at Quinnipiac training program
- Objective #3: Retention and tracking – inactive
- Objective #4: Retention and tracking – students and other active membership categories
- Objective #5: Biostatistician utilization
- Objective #6: International presence
Lymphangioleiomyomatosis (LAM):
Increasing Our Awareness of a Very Rare Exclusive Women's Condition During Their Reproductive Years
by Edgar B. Masmila

Introduction:
Lymphangioleiomyomatosis (LAM) [lim-FAN-je-o-LI-o-MI-o-ma-TO-sis] is a member of a family of tumors characterized by the presence of perivascular epithelioid cells that can be distinctly identified histologically, and can be confirmed radiologically and immunohistologically. This family of tumors also includes: renal and external angiomyolipoma (AML), clear cell “sugar” tumor of the lungs (CCST), and a number of extrapulmonary spindle and epithelioid neoplasms, which include primary extrapulmonary sugar tumor (PEST), clear cell myomelanocytic tumor, and abdominopelvic sarcoma of perivascular epithelioid cells. The proliferation of perivascular epithelioid cells are seen around the lymphatics and lymph nodes of the mediastinum, retroperitoneum, and the pulmonary interstitium; localized lesions are referred to as lymphangiomas, whereas extensive lesions involving large segments of the lymphatic chain, with or without pulmonary involvement, are designated lymphangioleiomyomatosis (Weiss and Goldblum, 2008). This article will focus its discussion on lymphangioleiomyomatosis (LAM).

Etiology/Pathogenesis:
Lymphangioleiomyomatosis (LAM) is a rare progressive multisystem condition associated with the loss of the genetic allele TSC2 gene. It is characterized by a proliferation of cells with smooth muscle differentiation. Although considered benign, this abnormal growth can result in dysfunction of the lungs, kidneys and axial lymphatics. Pulmonary dysfunction is progressive and is induced by cystic destruction of the lung tissue causing obstruction of small airways. It has a predilection for women in their child-bearing age, from twenty to forty years old. Researchers suggest a link of this condition to female sex hormones because the condition is worsened by pregnancy, menstruation, use of estrogen (ER), and during hormone replacement therapy for menopausal women. This notion is still not proven. Men with genetically acquired tuberous sclerosis complex can also develop LAM. There is no racial predilection. The two main types of LAM are: sporadic type, which is manifested without known reason, and the one with tuberous sclerosis (TS), which is a rare inherited disease.

Clinical features:
The disease occurs almost exclusively in women during their reproductive years. Patients with LAM usually present with progressive dyspnea, cough, hemoptysis and sometimes pneumothorax. The average time between the onset of symptoms and the definitive diagnosis of LAM is five to six years (Taveira-DaSilva, 2006). Less common manifestations are characterized by chest pain, chylothorax, chyluria, pericardial effusion, pneumoperitoneum, lymphedema and chylous ascites. Again, symptoms become more prominent or worst during pregnancy, menstruation and with estrogen (ER) use. Physical examination results are mostly normal, but less commonly would reveal clubbing, crackles, wheezing, pleural effusion, pneumothorax and ascites. Physical examination results are mostly normal, but less commonly would reveal clubbing, crackles, wheezing, pleural effusion, pneumothorax and ascites. Signs of tuberous sclerosis are sometimes identified, such as: facial angiofibromas, ungual fibromas, hypomelanotic macules, shagreen patches of collagen bundles in the skin, usually of the back and retinal hamartoma. Studies showed that one out of three women develop angiomyolipomas (AMLs) of the kidney.

Differential diagnosis:
Patients with progressive dyspnea are often diagnosed with asthma. Radiologic lung findings could lead to the diagnosis of spontaneous pneumothorax, emphysema or tuberous sclerosis. Other radiologic lung findings would show cysts, honeycombing or an interstitial pattern that could be diagnosed as: (1) interstitial pulmonary fibrosis, which is ruled out by the presence of decreased lung volume on pulmonary function tests; (2) eosinophilic granuloma, which is ruled out by the thicker cyst walls on radiology; and (3) bronchiolitis. Lymphatic disorders are also...
considered including diffuse pulmonary lymphangiomatosis, lymphangiomas, and pulmonary lymphangiectasis. Some smooth muscle conditions are also considered such as: leiomyosarcoma, smooth-muscle proliferation in the lung and benign metastasizing leiomyoma. All of these disorders show a negative immunohistochemistry stain for HMB-45.

Laboratory, radiologic, and pulmonary function test findings: Laboratory blood test results consist of: elevated serum level of cancer antigen 125 with concomitant chylous ascites and/or pleural effusion and elevated levels of vascular endothelial growth factor-D (VEGF-D), which is not found in other cystic lung diseases. Radiologic findings are very helpful in the diagnosis of LAM; they include: (1) fine reticular or reticulonodular interstitial infiltrate without reduction of lung volume; (2) when the lung parenchyma is diffusely replaced by thin-walled 2-20 mm cysts, with delicate honeycombing, it is indicative of advanced disease; (3) additional radiologic findings include pleural effusions and pneumothorax. Lymphangiography shows obstruction of the major lymphatic ducts with resulting markedly visible distal lymph vessels. The architecture of the lymph node is often not discernable. High resolution CT scan confirms the presence of the diffuse thin-walled cysts, which is the significant radiologic confirmatory feature of LAM. Other CT scan findings are: normal intervening parenchyma, adenopathy, thoracic duct dilatation, pleural effusion, pneumothorax, ground-glass opacities that would indicate pulmonary hemorrhage and pericardial effusion. Angiomyolipoma and benign tumors that contain abnormal growths of smooth muscle are common findings in abdominal imaging. Retroperitoneal adenopathy is also expected. Other test results include pulmonary function tests with decreased diffusing capacity for carbon monoxide and hypoxemia at rest which gets worse during exercise. Airflow obstruction is noted during spirometry. Pulmonary function tests show an increase in total lung capacity and an increase in residual volume to total lung capacity (TLC) ratio.

Pathology: Open or thoracoscopic lung biopsies or transbronchial biopsies (TBB) are performed for histologic diagnosis. The biopsy specimens are taken from the lung, retroperitoneal and pelvic lymph nodes, and thoracic duct. Grossly, the lung tissue shows cysts that are evenly distributed. Weiss and Goldblum called it “a honeycomb appearance with formation of numerous blebs and bullae” (2008). According to Moss and Kelly, the pelvic lymph nodes appear pale and spongy and the thoracic duct appears large, spongy, and sausage-like (2010). Microscopic findings that were described by Weiss and Goldblum in 2010 are as follows: the lymph nodes show red to gray spongy masses, the lung shows proliferation of neoplastic LAM cells (spindle-shaped cells with small nuclei, larger epithelioid cells with clear cytoplasm and round nuclei) having a smooth muscle phenotype, there is loss of alveoli with cyst formation, LAM cells are present on the walls of the cystic spaces, there was smooth muscle proliferation in bronchial walls causing airway narrowing, thickened arterial walls with venous occlusion and hemosiderosis and the involved lymph nodes and thoracic duct showed interlacing bundles of LAM cells invading the wall of the lymphatics.

Staging has prognostic importance using the LAM Histology Score (LHS), which is determined by the percentage of lung tissue that is involved by cystic lesions and LAM nodules: LHS-1=<25%; LHS-2=25% to 50%; and LHS-3=>50%.

Immunohistochemical staining includes: reactive anti-alpha-smooth actin antibodies for smooth muscle differentiation, positive ER and Progesterone receptors, positive trichrome and smooth muscle actin, positive monoclonal antibody HMB-45, which confirms the histologic diagnosis of LAM. HMB-45 antibody generally binds to antigen present in the cytoplasm of neoplastic melanocytic cells (Tanaka, 1995). The reaction of LAM to HMB-45 as explained by Hironaka and Fukuyama is due to the following: the LAM lesion consists of diffuse proliferation of clear cells with intralysosomal glycogen granules and human melanin black causing the immunoreaction with HMB-45 (1999).

Treatment: Treatment of patients with LAM includes symptomatic treatment, hormonal manipulation, experimental drug therapies and also (Cont. on Page 6)
surgical intervention. Symptomatic care includes the management of pleural effusions and by reducing the flow of chyle, which are treated respectively by chemical pleurodesis and lipid-free diet; paracentesis is performed to manage ascites; pulmonary dysfunction is managed by bronchodilators with supplemental oxygen, oftentimes pulmonary rehabilitation is recommended. Bronchodilators are used since patients have reversible airflow obstruction. The use of Gonadotropin-releasing hormone agonists has been useful in some cases, but it remains inconclusive in other studies. The use of Medroxyprogesterone, Tamoxifen and surgical oophorectomy are not recommended and are not proven effective by recent studies. New experimental drug therapies are now being explored that include Rapamycin, Doxycycline and Octreotide. Surgical interventions include excision of lung lesions; lung transplant surgery should be considered for patients with end stage pulmonary disease, although recurrence in lung transplant patients has been reported. Single or double lung transplantation could be performed although double lung transplant showed superior functional results.

Prognosis:
Prognosis of patients with LAM is variable, from a few years to decades. Localized surgical excision of the lesion is helpful for a possible longer survival period. Double lung transplant resulted in a 50% five year survival rate. Progressive pulmonary involvement has approximately a 30-70% ten year survival rate. In 1995, a study was performed by the NIH of four hundred two (402) patients with LAM. Twenty two (22) died, eight (8) of which had a lung transplant. From the remaining three hundred eighty (380), thirty eight (38) had had lung transplants; these 380 patients had more than ten (10) years of survival.

Conclusion:
Lymphangioleiomyomatosis, a multisystem, non-malignant proliferation of epithelioid cells of smooth muscle origin and included by some in the family of so called “perivascular epithelioid cell tumors” is a rare disease that affects mostly women of child-bearing age. Female hormones have been implicated in the pathogenesis of LAM. It has distinct characteristic features that differentiate it from other lung and spindle cell conditions. These features are seen radiologically, histologically and confirmed by immunohistochemistry. Diffuse thin-walled cysts on radiology, and elevated serum level of cancer antigen 125 and VEGF-D will confirm the clinical diagnosis of LAM. Microscopic findings include proliferation of smooth muscle-derived epithelioid cells with smooth muscle actin and HMB-45 staining. Progressive lung involvement can worsen the condition of LAM. There is no known treatment, although some drugs are useful. Experimental drug studies are ongoing to battle this rare condition. Lung transplantation is also recommended. The prognosis is poor and most patients showed five (5) to ten (10) years survival with or without lung transplant.
Education Committee

This is a very busy time of the year for the Education Committee! The Student Scholarship Essay Contest is underway, and we are expecting a large number of essay submissions! We would very much like to thank Surgipath, for their continued support towards the pathologists’ assistant students. This has all been well coordinated by James Edwards.

_Beyond the Bench_ has been a huge success! We thank you for your participation, both as purchasers and as contributors! It is an ongoing process, however. April Reineke is always welcoming new ideas and all related articles that continue to contribute to the overall success of this section.

The annual conference in San Francisco is fast approaching. The lecture lineup and the scheduled workshops are confirmed and we are confident that you will enjoy the topics this year. Skip Winters has been busy learning the ropes from Rich Pucci. I am sure Rich has taught him well!!! Beth Obertino Norwood will be conducting an Exam Study Course in San Francisco. Beth does a fantastic job of reviewing/revising/editing the study materials on a yearly basis.

We are also looking forward to successful poster display session(s) again this year. Jennifer Davidson has done a great job in growing the number of poster submissions from our membership, including PA training program students. As usual, Barb Dufour has done an excellent job in providing us with journal CME articles and affiliated quizzes. She was also very helpful in preparing quizzes for the _Beyond the Bench_ section. Finally, Kathy Washington continues to do an extremely efficient job in managing all of our CME related credits! We kindly thank her for her stellar organizational skills and for being able to resolve any of the CME related concerns. I look forward to seeing you in San Francisco!

Public Relations Committee

As you read this article, the Public Relations Committee is in the middle of updating the marketing strategy of the AAPA. Keeping in line with the BOT’s strategic plan and our members’ needs, the PR Committee has set out on an ambitious plan to create a well-rounded marketing campaign that targets our key customers: AAPA membership, pathologists and laboratories, employers (HR departments and administrators), and general pathologists’ assistant recruitment.

_How is the PR Committee planning to accomplish this?_ We will achieve this goal along many fronts:
- New exhibit booth – eye-catching, AAPA branded with the incorporation of targeted digital signage
- Updated literature, handouts, and brochures – multiple publications, each with a specific purpose and each geared toward a specific target audience
- Increased use of social media
- Expansion of current AAPA branding

The PR Committee is working under tight time restraints with the goal of having these materials in place for our membership to provide feedback by the upcoming AAPA Annual Continuing Education & Business Conference. As always, the PR Committee is looking for new and innovative ways to promote the AAPA and the pathologists’ assistants profession. If you have any ideas, please do not hesitate to contact either Cherie Germain, Vice Chair, or me.

Administration Committee

Well, it’s that time of year. Time for BOT elections. Three seats are up for election, and we need to fill them with members who you feel are ready to lead. The deadline for nominations was May 21st.

The Administration Committee is currently contacting those who were nominated. Election ballots will be released soon. Thanks and have a great year.

Chief Financial Officer's Update

During the recent Board of Trustees Retreat at the AAPA Central Office in St. Paul, Minnesota, the Board voted and approved a Fiscal Plan and a Financial Plan for our Association. The Fiscal Plan documents the following activities: Annual Budget, Financial Reporting and Distribution, Taxes, Audit Policy, and Profit Management. The Financial Plan outlines three investment tiers and how each tier is managed: Liquid Operating Capital, Cash Reserves, and Long-Term Reserves. I am confident that going forward, these documented plans will give us greater continuity with regard to management of our Association’s long-term finances. Please contact me if you have any questions or feedback about the Association’s finances.
Wine Tours
San Francisco Conference Fun Event

Hey wine lovers, and those of you who are interested in learning about wines, the fun activities for the San Francisco Conference will include two tours to California's most famous wine country – Napa and Sonoma counties. Below is a snapshot of each tour.

Saturday, August 27
Napa County Wine Tour
www.winecountrytourshuttle.com
9 am to 5 pm
40 passenger mini bus
(tour limited to 40 people)
$10 lunch voucher
3 wineries with tastings and tours
• V. Sattui
  (includes a picnic lunch)
The other 2 wineries could be either
• Domaine Chandon
• Franciscan
• Whitthall

Sunday, August 28
Sonoma County Wine Tour
www.californiawinetours.com
9 am to 5:30 pm
47 passenger mini bus
(tour limited to 47 people)
4 wineries with tastings:
• Jacuzzi
  (includes an olive oil tasting)
• Kunde
  (plus cave tour)
• Chateau St. Jean
  (tour, reserve tasting, and picnic lunch)
• Benziger

Since space is limited on these wine country tours, please register early!

Winchester Mystery House Tour
Thursday, September 1
12:45 pm - 6:00 pm

The Winchester Mystery House is a mansion which is surrounded by mystery and reported strange occurrences. Located in California's San Jose area, the mansion which now serves as a tourist attraction was once the personal residence of Sarah Winchester, the widow of gun mogul William Winchester. After the deaths of her infant daughter in 1866, and husband in 1881, Mrs. Winchester reportedly sought council from a Medium who advised her that the deaths of her husband and daughter were the result of unhappy spirits of those who had been killed by Winchester rifles. In order to appease the spirits and not become the next victim herself, Mrs. Winchester was advised to move west and build a great house for these spirits. As long as construction of the house was never finished, Mrs. Winchester was assured that she would not die and possibly even live forever.

The mansion was continuously under construction for 38 years until the time of Sarah's death in 1922. Before the earthquake of 1906 the house had been seven stories high. Today it is only four stories, but still packed with strange, unique and at times impractical design elements. The miles of twisting hallways are made even more intriguing by secret passageways in the walls. There are doors and stairways that lead nowhere and spider webs and the number 13 are prevalent in decor throughout the house. Also, every Friday the 13th the large bell on the property is rung 13 times at 1 o'clock p.m. (13:00), in tribute to Winchester.

The notion of a house built either to confound the spirits or to house them, depending on whom you ask, seems so full of spooky potential. Since 1923, when the house opened to the public, the people who work in the mansion have described strange experiences. By themselves, these stories of creaking floorboards and rattling doorknobs don't always seem like much, but over time they paint a portrait of a house with a spirit, or spirits, and of mischief.

To read more about the Winchester Mystery House, its previous occupant and strange sightings, visit their website at www.winchestermysteryhouse.com.
Golden Gate Bridge Three Hour Bike Tour

On Sunday, August 28, a bike tour of the Golden Gate Bridge is scheduled. Explore the city up close and personal during this three hour bike tour. The tour will begin at Fisherman’s Wharf where we will pick up our fully equipped, well-maintained bicycles. The knowledgeable, experienced tour guide will take us around the Bay and across the Golden Gate Bridge along a wide bike path with awesome views. We will then coast two miles downhill into sunny Sausalito. A ferry will return us to the Wharf at the end of our tour.

Take Me Out to the Ballgame (or Two!)

The 2011 AAPA Conference will offer us the opportunity to see two exciting Major League Baseball games!

The first game will be San Francisco Giants vs. Chicago Cubs on Monday, August 29, 2011 at 7:15 pm. These great seats will include a view of McCovey Cove from AT&T Park.

Our second game will be Oakland Athletics vs. Seattle Mariners on Friday, September 2, 2011 at 7:15 pm in Oakland. The second venue will include a private terrace, catered with an all-you-can-eat BBQ meal included with your paid attendance.

See you at the ballpark!

Conference Dinner at Yank Sing

Join us Thursday evening September 1, for the conference dinner being held at Yank Sing, a traditional and contemporary deem sum restaurant.

Deem Sum literally translated means “to touch the heart.” Yank Sing not only serves the traditional hors d’oeuvre sized dumplings, but has created a much wider array of smaller dishes to entice any palate.

This will be a catered meal with many deem sum options served family style at each table. Wonderful vegetarian options are also available.
Conference Committee

I consider myself extremely blessed to chair one of the largest and most actively involved committees, the Conference Committee. In organizing this year’s conference in San Francisco, a number of my committee members, both new and old, have stepped up to the plate and taken on an even more involved role in the planning process. This has been so helpful and such a relief, since my regular job has kept me quite busy as of late. I know that our conference attendees will notice the impact that these committee members have made and appreciate the diversity each personality contributed to the program.

Larry Marquis, Travis Rinehart, Beth Felicelli, and Rebecca Karpa have worked extremely hard as the new and very fabulous Fun Subcommittee! Together they have organized a number of activities, which will offer something for everyone. Travis organized baseball outings for both San Francisco and Oakland. Larry, whose appreciation for and knowledge of wine which barely takes a second seat to his interest in golf, has put together tours of both Napa and Sonoma vineyards. Beth has been busy planning an exciting bike trip across the Golden Gate Bridge and the Thursday evening conference dinner, and Rebecca researched and organized a tour of Winchester House that sounds intriguing! Check out the tour descriptions the Fun Subcommittee put together for these and additional activities and make sure to register early, as space is limited for some of the excursions.

Tara Mann, our new Career Fair Subcommittee Chair, has been hard at work sketching out the details and schedule for our first ever Career Fair, which will be held on Monday and Tuesday at the conference. Tara has managed to recruit a number of experienced PAs to help with mock interviews, and is now busy recruiting companies wishing to conduct real interviews on-site in San Francisco to fill vacant pathologists’ assistant positions.

Members of the new Conference Student Travel Scholarship Subcommittee took on the task of reviewing 26 essay submissions from students vying for the nine $300 travel scholarships we will be awarding to 2nd year students taking part in the 3rd Annual Conference Student Program. Lei Wang, who took part in our first Conference Student Program in Baltimore and graduated from the Drexel training program in 2009, has agreed to chair this important program going forward. Lei’s enthusiasm for our association and willingness to become involved is very gratifying for me personally. It is also proof positive of the success of the Conference Student Program, which is helping to get the students involved in their association at a very early stage in their careers.

Check out the other articles from various conference subcommittee members for more detailed information, and log onto the new AAPA website on a regular basis for up-to-date information on the San Francisco conference. We are planning an extra special Welcome Party that you will not want to miss!

SCHOLARSHIP WINNERS:

Sarah Gardner, Drexel University
Leslieann Gilbert, Indiana University
Lucy Giraldo, Indiana University
Sara Greenlee, Duke University
Erin Medley, University of Maryland
Nancy Mendoza, Quinnipiac University

Kristin Motz, Drexel University
Susan Noh, Rosalind Franklin University
Kara Pridey, West Virginia University
Kara Satterfield, West Virginia University
Kathryn Schwancke, University of Maryland
Nicole St. Pierre, Quinnipiac University

Career Fair Subcommittee

As most of you know, the Conference Committee is going to offer a Career Fair this year in San Francisco. We hope to benefit both new graduates and students as well as experienced PAs who may be jumping back into a job search. We will have companies set up just outside the main lecture hall where members can speak with them between lectures. Members will be able to submit their resume and set up private interviews with these potential employers on-site. We will also be offering mock interviews where experienced PAs will offer constructive feedback on the interview process and the participant’s resume. There will be mock phone interviews for those of you who are not able to attend the conference in San Francisco. A roundtable discussion is also in the works where “seasoned” PAs can answer questions from participants about anything from the job interview to experiences in our field of work.

We would like to thank those of you who have volunteered to help with this new endeavor. We would be unable to make this happen without you!

If you know of a company that may be interested in participating in this new program, please have them contact me at tmannrx4@yahoo.com. Hope to see you soon in San Francisco!
Conference Student Program Subcommittee

Spring has finally arrived and hopefully these tips will help students get the most out of an email cover letter. This may be your only chance to make a great first impression. Have an appropriate professional email address. Make sure your resume attachment looks professional. Email the document to yourself and open the attachment. Scan from the bottom to the top to catch grammatical or typographical errors. Have a friend or mentor review.

Don't waste the subject line. Make it specific to the position wanted with more than just job posting number. For example, “New graduate seeks pathologists' assistant position.”

Do use standard cover letter protocol with your letter as the body of an email. Include the correct salutation of the person, whether a MD or HR personnel. Close with “Sincerely” or “Warm Regards.” Leave a blank line between paragraphs. In your signature line include all the information you would have on your business card, including your home address, phone number and email address. Keep your letter short and dynamic. Managers and recruiters are busy. They want your best pitch in 150 words or less. The first paragraph is crucial in hooking the reader by selling your abilities. Use short paragraphs and short sentences to give a very brief bio on who you are and what you can do for them. Wrap it up in a second paragraph. One free way to keep it simple is to go to www.FormatIt.com. Drop in your text and the free service will format your emails for you. This will strip away excess formatting and ensure that your cover letter does not arrive in pieces. Do not get cute with emoticons, abbreviations, wild colors or fonts, which are all distractions.

Be specific and use key words that identify skill sets you have, which the employer wants:

* Look at the current ads out there for the job title you are looking for; read the ads and look for keywords they use in the ads.
* Create a master keywords list; edit your resume to include those keywords in your current/past job descriptions.
* Use the same keywords in your cover letter and social-media profiles.

Play by the rules. Make sure you apply following the company's guidelines for submitting resumes. Most companies list their requirements on their website.

Finally, check it again. Thoroughly spell-check and proofread your email letter. Your spell checker will not catch grammatical errors, so send it to a friend to check for content and style. Put yourself in the mindset of an employer when you re-read your cover letter.

Thank you to the second year students who took the time to write an essay in order to win a $300 travel scholarship for the 37th Annual AAPA Continuing Education & Business Conference in San Francisco. Winners from each program were notified and announced in May. The student program portion of the conference is expanding with a Career Fair, which will include mock interviews, and real interviews by on-site companies, and of course my Facts of Life presentation. This year we are opening these programs to all pathologists' assistants who may be thinking of changing positions. I look forward to meeting second year students and finding out how well previous students have succeeded in negotiating their first positions. As always, if students have a specific question, please contact me at nchimara@comcast.net.

Fun Run Subcommittee

San Francisco is proving to be a challenging venue for our fun run and walk. I don't see many non-traffic areas around the hotel using the online maps. The safety of our participants is a top priority, and there is something about dodging traffic that doesn't seem fun. As I mentioned before, we might get creative this year and try something different - maybe a stair climb or obstacle course. I will be in San Francisco a few days early to plan for the event, but if anyone in the area has local information, please contact me. Thanks.
It is the turn of the century circa 1900 in America, more than three decades after the civil war. Since the 1870s, serious epidemics of smallpox are uncommon, but that does not temper the fears attached to the disease. Americans are more likely to die from diphtheria, influenza, scarlet fever, typhoid fever, or consumption. Still, nothing strikes fear into the hearts of folks like smallpox.

In his new book, POX: An American History, historian Michael Willrich recounts a period of history—the late 19th to early 20th centuries—when health officials and politicians still had to worry about outbreaks of smallpox. It had been a century since the English physician Edward Jenner published his first paper concerning his experiments with smallpox vaccination. The new science of vaccination was widely embraced around the world as a weapon to the “vile destroyer” known as smallpox.

Experience taught local health officials that when smallpox broke out, time was of the essence. The person or persons infected must be quarantined and the population vaccinated in haste. This, unfortunately, at times required compulsory vaccination. It is this compulsory vaccination and the public’s reaction to it, that are the central story of Willrich’s book. It is a story about the conflict between the government’s duty to protect its citizens via vaccination, and the freedom of citizens to control what goes into their own bodies.

Sure, citizens have always harbored a healthy mistrust of their government, federal and state. But a significant number of citizens at the turn of the 19th century would make today’s Libertarians and Tea Partiers look like dyed-in-the-wool Socialists. With the possible exception of protecting them from sometimes the vaccine could be downright hazardous to one’s health. The hazards ranged from one helluva sore arm on the one side, to a canoe trip across the River Styx on the other.

In Chapter 2, The Mild Type, Willrich explains one of the reasons fidelity to vaccination fell off, especially in the South. He tells us of a peculiar form of smallpox that invaded communities across the American South the last three years of the nineteenth century. This mild type of smallpox was not as malignant as your regular smallpox. For every hundred infected, only one or two died. Its symptoms could even be mistaken for chicken pox or measles. Most who were infected recovered without the telltale pock marks. Knowing this, why would people make the extra effort to vaccinate themselves and their children? Why would town and county officials spend money on vaccination since it may not even be necessary? (It should be noted that if a rip-roaring smallpox infection of the malignant type spread through a town, then most of the citizens couldn’t roll up their sleeves fast enough).

To further complicate matters, at this time there was widespread belief that smallpox infection was largely spread by bad hygiene and poor sanitary living conditions. This was code for saying that smallpox was spread by people of modest means including immigrants, people of color, and poor people of no particular color. Upper class white society was all too eager to cast blame on these groups of people, thereby insulating themselves as if they—the clean and moral—were, if not exactly immune to smallpox, then at least less susceptible to it. Bolstering the white man’s self-assurance was that immigrants and African Americans often did harbor infectious diseases due to the abysmal close quarters they were forced to live in. Also, many were itinerant workers, moving from job to job and town to town looking for work and so were more likely to spread the disease, if indeed they did have it. They were also
distrustful of the medical establishment, which is not to say that they had easy access to it.

However, while benighted men may discriminate based on race, smallpox does not. It is decidedly egalitarian. Addressing a white Mississippi audience in the early twentieth century, Booker T. Washington told his audience that, “the destiny of the Southern white race,” was, “largely dependent on the negro”. He continued, “You can’t have smallpox in the negro’s home and nowhere else...You need to see that the cabin is clean or disease will invade the mansion. Disease draws no color line.”

The poor and unfortunates who were found to be infected were promptly quarantined by the authorities and put into “pesthouses”. These pesthouses were more often than not filthy holes with poor sanitation. During an outbreak the authorities, including police, would canvas the neighborhoods house to house, checking to see if everyone had been vaccinated. If they had not, they would be vaccinated on the spot, forcefully if need be. If they were found to be infected—telltale pock marks, etc.—they would be sent to the pesthouse. Sure, the fetid pesthouses did their job of separating the infected from those not, but the pesthouses were often more deleterious than salubrious to those imprisoned in them. When the authorities knocked on doors people would often hide or go on the lam, whether or not they were infected, so distrustful were they of the police.

What about the infected members of the upper classes? Were they taken to the pesthouses? No, they were often allowed to convalesce at home. The authorities felt their houses were usually big enough to effectively isolate those infected. No surprise that those who received the best bedside care along with proper nutrition often fared better than those who did not.

Looking at the situation with a 21st century eye, it is somewhat heartening to read that health officials—local, state and federal—were so pro-vaccine. Whether in the North or the South, health officials, physicians, politicians and newspaper editors embraced the science of vaccination. And although health officials were mistaken in assuming that the mild type smallpox could turn into the malignant type, they were correct that the mild type could still kill. On top of that, the unvaccinated were still not protected from malignant smallpox which could set the table for a potential horrific epidemic.

As noted, there were some legitimate claims the anti-vaccinationists held. What were some of the risks of vaccination? Of course, even today vaccinations have risks, although contamination is extremely low. The drug companies or “big pharma” would not last long in business if it were otherwise. Nevertheless, we know that a certain percentage of recipients will have reactions, ranging from mild to severe. Federal funds are in place to help the unfortunate and their families. This is the best we can do in an imperfect world. We fear more lives will be lost without vaccination.

But in the late 19th century there was no such thing as “big pharma,” let alone federal funds for those who suffered adverse reactions to vaccines. No, the vaccine industry at this time was in its infancy and—hard to believe—virtually anyone was allowed to make and sell their own vaccine. You have a friend with a barn and a few cows? Sounds like a plan. Needless to say, these bovine vaccines were often produced under less than sterile conditions. “Vaccine farms” sprouted up around the country. Vaccines produced under unsterile conditions led to contamination, which led to adverse patient reactions, which led to public mistrust of vaccines. (Smallpox vaccine was originally made directly from human sources. This led to occasional infections causing human diseases such as syphilis. Bovine vaccines were a big improvement and—if I may go out on a limb—saved quite a few marriages).

In Chapter 5, Willrich writes of an unfortunate incident that happened in Camden, New Jersey, that highlights the fear of the era. Eight-year-old Pearl Ludwick took ill with smallpox, followed by her father and all seven of her brothers and sisters. Her father, perhaps dizzy with fever, knocked over a lamp and it burned their house to the ground. All safely escaped, but hundreds of neighbors gathered and were exposed to smallpox. And so commenced the Camden smallpox epidemic of 1901-02.

Camden had seen only a few cases of smallpox the past sixteen years, and vaccination had fallen out of practice. Complacency, a virus’s best friend, crept in. But in 1901 smallpox was on a comeback, causing trouble everywhere in the United States. New Jersey officials wanted everyone vaccinated. For safety, they stressed that they would use only the glycerinized vaccine which acted as a preservative and killed bacteria.

(Cont. on Page 14)
In early November, word spread that a sixteen-year-old boy had come down with tetanus that led to lockjaw. Contractions spread to all muscles of his body. His mother said, “Never again shall I have one of my children vaccinated.” He had been vaccinated 19 days earlier.

More children came down with tetanus, many of whom had earlier been vaccinated. Parents’ suspicions morphed into panic. The head of the board of health made a statement that attributed the tetanus cases to a period of unusually dry and dusty weather. “I am satisfied that none of them have been caused by vaccination,” But another local authority, Dr. Dowling Benjamin, considered a local authority on tetanus said, “This talk of germs being in the air is all absurd. If that were so there would be more lockjaw than there now is. I think it is highly probable the tetanus germs were in the vaccine tubes before they were sealed.”

More children’s deaths followed. The tetanus outbreak now weighed more on the parents’ minds than the continuing smallpox epidemic. The parents may not have been up on the science, but they knew one thing: all of the children had been healthy until they were vaccinated. For the parents this was not only correlation, but causation. Roughly three weeks after vaccination each child fell ill with lockjaw. Now six children were dead. To bolster their case, most of the vaccine used in Camden came from a single firm. Elsewhere reports of isolated post vaccination tetanus deaths surfaced in Atlantic City, Bristol, PA, and Philadelphia. The New York Times, a champion of compulsory vaccination, said of Camden, “Vaccination has been far more fatal here than smallpox.”

Officials assured the public that vaccines were safer than ever and that the preparation of glycerinized vaccine lymph had been brought to perfection. But in Camden the board of health had no choice but to order physicians to cease vaccination until further notice. The authorities initiated an investigation into the vaccine company that had supplied most of the suspected tainted vaccine. The lead investigator was a physician who once worked for the company being investigated. (An acceptable and not uncommon practice in that day Willrich tells us).

In the end the company was exonerated, at least on paper. The official blame was put on atmospheric and environmental factors. The children’s vaccination site, the reasoning went, became infected through the atmosphere or environment. It had nothing to do with the vaccine itself. Their report said that, “It was highly unfortunate that a period of prevalence of tetanus germs should have coincided with a period of vaccination.”

This prompted W.R. Inge Dalton, a physician and a professor, to write, “In Camden, the manufacturer and the medical men have cooperated in exonerating themselves, and have thrown all the blame on the children.” If tetanus bacilli were simply “in the air,” it was remarkable that they had a “selective predilection for sores produced by particular kinds of vaccine virus”.

Other researchers found an inconsistency in the quality of vaccine on the market and felt that there was too much faith in the germicidal powers of glycerin. In their haste to meet the high demand for vaccine during epidemics, manufacturers had not given the glycerin sufficient time to work. And critics of vaccination pointed out the huge profits the vaccine producers were making, accusing them of creating an artificial demand for their product and referring to them as the “cowpox syndicate.”

But there was some good that came out of the tragedy in Camden and elsewhere. In 1902, Theodore Roosevelt signed the bill now known as the Biologics Control Act. It established a system of licensing and inspection for all biologics sold in interstate commerce or imported from abroad. All makers of vaccine, antitoxins, sera, and toxins in the US would need to seek a federal license to continue to trade in biologics. Even those citizens and politicians who were against federal government regulation in any shape or form did not complain.

Vaccine quality increased dramatically. Between 1902 and 1915, laboratory staff routinely tested smallpox vaccine for tetanus bacilli; none were found. The vaccine crisis was defused and the public confidence returned.

Willrich tells us that America’s last confirmed smallpox outbreak happened in Texas in 1949. The discovery of the polio vaccine and the ensuing national vaccination campaign during the 1950s changed everything, turning compulsory immunization from a political liability into a popular cause.

Today, vaccination still has its detractors and controversies. The controversies range from the thoroughly disproven link between vaccination and autism, to controversies over conscientious or religious reasons. But those are different books.
Quiz

1. In looking at the gross image above, the following are included in your differential diagnosis:
   a. Mucocele
   b. Mucinous adenocarcinoma
   c. Mucinous cystadenoma
   d. None of the Above

2. This type of cancer arises within a mucinous cystadenoma and invades through the muscularis mucosa into the submucosa:
   a. Mucinous adenocarcinoma
   b. Pseudomyxoma peritonei
   c. Mucinosis
   d. Tubulovillous adenoma

3. When there is mucin present in the peritoneal cavity and on the surface of the appendix, with no cells present in the mucin, the condition is referred to as:
   a. Mucinous adenocarcinoma
   b. Mucinosis
   c. Pseudomyxoma peritonei
   d. None of the Above

(A answers on Page 23)
The Winchester Mystery House is a mansion which is surrounded by mystery and reported strange occurrences. Located in California’s San Jose area, the mansion which now serves as a tourist attraction was once the personal residence of Sarah Winchester, the widow of gun mogul William Winchester. After the deaths of her infant daughter in 1866, and husband in 1881, Mrs. Winchester reportedly sought council from a medium who advised her that the deaths of her husband and daughter were the result of unhappy spirits of those who had been killed by Winchester rifles. In order to appease the spirits and not become the next victim herself, Mrs. Winchester was advised to move west and build a great house for these spirits. As long as construction of the house was never finished, Mrs. Winchester was assured that she would not die and possibly even live forever.

The mansion was continuously under construction for 38 years until the time of Sarah’s death in 1922. Before the earthquake of 1906 the house had been seven stories high. Today it is only four stories, but still packed with strange, unique and at times impractical design elements. The miles of twisting hallways are made even more intriguing by secret passageways in the walls. There are doors and stairways that lead nowhere and spider webs and the number 13 are prevalent in decor throughout the house. Also, every Friday the 13th the large bell on the property is rung 13 times at 1 o’clock p.m. (13:00), in tribute to Winchester.

The notion of a house built either to confound the spirits or to house them, depending on whom you ask, seems so full of spooky potential. Since 1923, when the house opened to the public, the people who work in the mansion have described strange experiences. By themselves, these stories of creaking floorboards and rattling doorknobs don’t always seem like much, but over time they paint a portrait of a house with a spirit, or spirits, and of mischief.

To read more about the Winchester Mystery House, its previous occupant and strange sightings, visit their website at www.winchestermysteryhouse.com.
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Fixation of Large Specimens and Identifying Suspicious Areas for Later Exam

There are various methods for properly fixing the many large specimens that we receive. Some of the specimens are simply opened by bi-valving or by bread-loafing. Some can be packed with gauze or some other absorbent material to draw the fixative into the interior of the specimen, and other specimens can be pinned to a piece of cork or foam and laid out in a large container.

For large GI resections, many of the aforementioned methods have been routinely used by many PAs. Recently, I learned of another method that bore mentioning in this column. As shown in the images at right, the bowel segment is opened as usual along its' length and then 'log-rolled' inside–out loosely (to allow for fixation) around a cloth or a paper towel as demonstrated below.

This method has several advantages. First, the specimen can usually be maintained in a smaller container than would be needed to lay the entire specimen out. Also, by rolling out the specimen this way, the bowel segment fixes in a flat open position, making sectioning much easier than the typical firm tubular shape achieved by simply 'packing' the lumen with absorbent towels.

A second technique demonstrated in these images addresses locating small lesions or polyps in colorectal specimens.

Oftentimes, these lesions are difficult to relocate when grossing the fixed specimen. In the fresh state, these are more readily identified and can be marked (as shown) with safety pins for description and sectioning later. By placing a pin in the area of each polyp or lesion at the time of opening, the grossing PA, which may be different than the PA who opened the specimen, will have an easier time documenting and counting the lesions present in the specimen. Typically, the pins can be saved in a sealable container and used again for other specimens.

Side Note: Safety pins can also be valuable in marking the true edges of a margin in specimens such as partial gastrectomy specimens, where there will be multiple edges once the specimen is opened for fixation or for grossing. For example: after removing the resection margin staple line, two safety pins can be placed at the edge where the greater curvature meets this resection line. By cutting between these pins and along the greater curvature, you are later able to re-approximate the pins to identify the edges of the actual resection margin.

Do you have a special tip or technique that has helped you with your workday? Do you care to share it with your fellow PAs? Members can email their suggestions to me at tipsandtricks@pathassist.org. If photos will help the clarity or the briefness of your tip, please include these with your message. Remember...a picture is worth a thousand words.
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We recently had a multicystic dysplastic kidney on the surgical bench followed two days later by another dysplastic kidney. In comparing and contrasting them for the rotating medical students and residents, I thought it might be interesting to look at renal dysplasia and cysts.

Renal dysplasia is a disorder of metanephric differentiation in which a structurally disorganized kidney contains primitive ducts and metaplastic cartilage (metanephric elements). The primitive ducts derive from the branching collecting ducts and are present in both cortex and medulla. They often become cystic. The metaplastic cartilage derives from metanephric blastema forming small bars or islands in the outer cortices or the interlobar fissures. There is lobar disorganization. This architectural developmental abnormality is associated with incomplete formation of calices and fornices. A pattern of dysplasia is evident as multicystic or obstructive dysplasia.

Multicystic dysplastic kidneys (MCDK) and aplastic kidneys differ only in the degree of cyst formation. The aplastic kidney is small, solid or minutely cystic and barely recognizable as a kidney. The kidney in MCDK is enlarged, irregularly cystic, and often has lost its reniform shape. They are associated with pyelocaliceal occlusion and ureteral atresia. There is often ureteral loss (rather than agenesis). MCDK results in a non-functioning kidney and no urine is excreted. Kidneys with atretic ureters rarely become infected.

In the recent past, MCDK was one of the most common causes of abdominal mass as discovered by physical examination. Due to the vast improvement over the years, prenatal ultrasound currently discovers most of these cases. The incidence is about 1 in 4300 live births. Most are unilateral, on the left, with an almost equal distribution between genders and a predominance in Caucasians. Most cases appear to be sporadic, with negative family histories and a very low risk of recurrence.

Bilateral MCDK is incompatible with life (no urine, oligohydramnios, hypoplastic lungs).

Before all the imaging studies were available (US, CT, MRI) these kidneys were surgically removed to be certain that the palpable mass was not a tumor. Now, most are followed by radiology. The size of the cysts may fluctuate a bit, but the kidneys eventually shrink, involute and may even disappear [Figure 1].

Renal dysplasia may also be associated with congenital urinary obstruction (hydronephrosis). Generally, the more severe the obstruction, the more severe the dysplasia [Figure 2]. Subcapsular cystic dysplasia can be seen with many causes of hydronephrosis including: posterior urethral valves, anterior urethral diverticulum, urethral atresia, ureteropelvic obstruction, ureterocele, neurogenic bladder, vesicoureteral reflex and prune belly syndrome [Figure 3]. The cystic dysplasia which develops is different from the multicystic dysplasia because of the dilated pelvis and calices. There is usually a thin rim of parenchyma in the periphery compressed by the cysts. The medullary pyramid is generally absent. Still, microscopically, nodules of metaplastic cartilage and blastema are seen.
Autosomal Recessive Polycystic Kidney Disease (ARPKD), also called Infantile Polycystic Kidney Disease, ranges from diffuse renal cystic disease and early death in infancy, through variable renal and hepatic involvement in older children and rarely in adults. ARPKD is associated with congenital hepatic fibrosis, a variable degree of portal fibrosis and bile ducts which appear to have an arrested development at the cisternal stage, before the creation of discrete tubules. The classic form of ARPKD is usually seen in stillborns or infants who die in the neonatal period from pulmonary hypoplasia. Both kidneys are enlarged, but with a reniform shape with fetal lobulations. The cut surface shows innumerable cysts, 1 – 2 mm in diameter, which replace both the cortex and medulla (Figure 4). The cortical cysts are fusiform and radially oriented. The medullary cysts are more rounded. Renal transplantation in the infantile and childhood varieties extends life; however, those that die after transplantation usually die from complications of the associated congenital hepatic fibrosis.

CMEs Demystified
by Kathy Washington

The AAPA is an approved provider of continuing education programs through ASCLS P.A.C.E.®.

There are two (2) different CME systems: AAPA and ASCP. The AAPA/P.A.C.E.® CME documentation runs on a calendar year from January 1st through December 31st. P.A.C.E awards one (1) CME credit for at least 50 minutes of lecture activity—basically a 1 hour-1 credit system. The ASCP Certification Maintenance Program (CMP) runs in three-year cycles starting with the date of your initial certification. The AAPA program is optional while the ASCP program is mandatory to maintain ASCP certification.

AAPA CME record keeping/tracking is an AAPA member benefit and is entirely optional. If you send documentation of your CME activity to me (AAPA) throughout the course of the CME year, I will keep track of it, record it on your AAPA web page profile for your access, and then send you a Year-End P.A.C.E.® Certificate outlining your CME credits for the year. All of your CME credits are in one place—the P.A.C.E.® certificate(s)—and easy to put your hands on if ASCP should audit your renewal. If you choose not to record your CME with the AAPA, your CME activity is still valid for ASCP purposes.

Participation in the ASCP Certification Maintenance Program (CMP) is mandatory to remain certified through ASCP. ASCP requires 45 CMP points for every three-year period of certification, to include at least one point in safety and twenty points in anatomic pathology. An ASCP CMP renewal form must be sent to ASCP two months prior to the end of each three-year period. A percentage of renewals will be audited, at which time you must provide documentation of the ASCP points you have earned. ASCP also requires 45 more credits for the new, optional (but required) Renewal Certification Program. If you choose not to track your CME credits, you must record evidence of your CME activity to the satisfaction of your institution's central 'CME Office' that keeps track of employee's CME activities.

The AAPA CME deadline is December 31st annually. AAPA CME submissions should be postmarked no later than December 31st annually.

The take home message of all of this is, whether or not you submit your CME activity to me (AAPA), make sure you have reproducible documentation of your CME activity that meets ASCP’s requirements!!

Participation in CME through the AAPA is not required to maintain AAPA membership. It is not a requirement to send in your CME documentation to me. HOWEVER!!!! The AAPA is an approved provider of CME credits by ASCLS P.A.C.E.®. By sending me documentation of your CME activity, I will in turn provide you with an AAPA P.A.C.E.® Certificate itemizing your activities in a consolidated format.

ASCP will accept P.A.C.E credits. All you will have to do (if audited) is to send in to ASCP copies of those P.A.C.E® certificates rather than hunting down all your various different CME activities. It is up to you.

CME record keeping is a benefit of maintaining AAPA membership. The AAPA P.A.C.E® certificates will be crucial if you are chosen to be audited by ASCP. It is up to each member to keep them in a safe place.

Finally, I cannot accept credits that have been approved by other P.A.C.E® providers. I cannot add their credits to an AAPA P.A.C.E® Certificate; it is considered a double entry. You will have to keep other P.A.C.E® providers’ certificates/documentation separate.

[Figure 4] ARPKD in a 3 Month Old (Autopsy)
Combined Kidneys Weight 320 g; Expected 42 g ± 12 g

The AAPA does not report CME activity to ASCP—that is each individual’s responsibility when they send in their ASCP certification renewal application. The AAPA tracks and records your CME activity as a benefit of being a member. The AAPA automatically supplies P.A.C.E.® Certificates for any approved AAPA regional or national meeting attended. The AAPA also supplies a year-end P.A.C.E.® Certificate for other credits that you have submitted separately on the AAPA CME worksheet to include hospital based activities for which you have provided documentation of attendance. AAPA Journal quiz responses are also automatically recorded. Any ASCP credits you might earn do not need to be recorded with the AAPA unless you want them to be included on the year-end P.A.C.E.® Certificate.

Additionally, if you submit/earn 40 credits in the AAPA CME calendar year, you receive an AAPA Certificate of Award suitable for framing! These certificates are a pat on the back from the AAPA but should not be used for documentation of CME activity with your employer or ASCP.

It is too late to get P.A.C.E.® Certificates for credits earned prior to 2011. The P.A.C.E.® Certificates for 2010 were already distributed in late January 2011. Data for 2011 is currently being recorded throughout the course of the year. After the December 31st, 2011 deadline, I will tally the data for each member and generate a 2011 Year-End P.A.C.E.® Certificate. The 2011 AAPA P.A.C.E.® Certificates will be distributed late January 2012.
Ameloblastoma

The patient is a 28 year old Haitian male with biopsy proven ameloblastoma.

He was first diagnosed and treated as a young male with several unsuccessful curettage procedures. These left him with quite a bit of pain, and he subsequently had significant recurrence of disease and progressive growth of the mass. He met one of our oral surgeons who was on a missionary trip to Haiti. His overall health was unremarkable, and he had no other health concerns.

At the preoperative physical exam there was a large anterior mandibular mass that had destroyed the majority of the dentition. The mass extended to 2 cm anterior to the left mandibular angle and 1 cm anterior to the right. A total mandiblectomy was scheduled with grafting from the tibial bone.

The specimen was received intact and consisted of a 9.0 x 8.0 6.8cm mandible with overlying pink purple dusky mucosa [Figure 1]. Nine intact teeth were identified, some enveloped within the mass. Several surfaces were disrupted with exposed underlying bone. Cut sections displayed diffuse cystic bony surfaces (9.0 x 7.0 x 6.5cm) with no normal appearing bone [Figures 2 & 3].

Microscopic findings were significant for focal anastamosing irregular islands and nests of basaloid peripheral cells and squamoid central cells [Figures 4 -6]. There were pleomorphic and hyperchromatic nuclei. There was marked associated bone destruction as well as bone formation. The superior lingual margin was focally positive.

The patient did well following surgery, and at time of discharge was able to speak, drink and eat a soft diet. He was noted to have trouble ambulating as a result of the bone graft from his leg. He was also encouraged to quit smoking.

Ameloblastoma is a rare tumor of the jaw and usually arises in the tissues that develop into teeth (odontoblasts). Occasionally the tissue around the jaw, mainly the eye sockets and sinuses, become involved. Malignancy is rare, as are metastases; however there is a high rate of local reoccurrence. These tumors are slow growing and do not usually present until a large tumor size is achieved. By this time there is usually displaced bone, teeth and roots. The average age at presentation is 33 years and it seen most often in Caucasians, African Americans and Asians (Chinese mostly). Resection is the treatment of choice due to the local reoccurrence.
Gross Photo Tutorial
Mucinous Cystadenoma

When receiving a firm, distended appendix, many things are considered at the gross bench. Could there be a fecalith; is there a carcinoid tumor; or could the appendix have a mucocele? The serosa is carefully evaluated for sludging or presence of exudate and/or mucin. Upon sectioning, tenacious mucus is present. This is when careful sectioning is performed, closely looking at the appendiceal wall. Is the wall atrophic? Is the mucosa flattened or denuded? Are diverticula present?

Microscopically, benign mucinous cystadenomas exhibit a neoplastic mucinous epithelium comprised of a single layer of tall, crowded columnar cells with basally located, hyperchromatic, pseudostratified nuclei and clear to eosinophilic cytoplasm. It is important to look for increased mitotic activity and atypia because the probability of an invasive carcinoma increases with the degree of dysplasia. Most mucinous cystadenomas have low grade mitotic activity. Mucinous adenocarcinomas have high grade dysplasia with invasive cells infiltrating through the muscularis mucosa into the submucosa, surrounded by a desmoplastic response, with the appearance of a thickened appendiceal wall.

If mucin is noted on the surface of the appendix, but histologically has no cells within the mucin, this condition is known as mucinosis. When the mucin contains neoplastic cells similar to a low or high-grade adenoma, the tumor is classified as a low-grade peritoneal mucinous tumor, and when the mucin has malignant cells, the tumor is classified as a mucinous peritoneal adenocarcinoma. Mucinous cystadenomas arise in both males and females with the average age of patients being 53 years old. The tumors are usually sporadic, and patients may develop acute appendicitis following obstruction of the lumen with mucin. In women, sometimes the tumors are mistaken for metastatic ovarian tumors.

PANE Meeting Recap by Wendy Peloquin

Our annual PANE meeting took place at historic Hotel Northampton in MA, on April 30-May 1. Attended by roughly 35 participants, it was good to see old friends as well as new faces, including students currently in their second year rotations! Eight CME credits were available over the 2 day course.

Eight different speakers (pathologists, surgeon, PA, clinical research assistant) were as interesting as the topics they presented. Many speakers touched upon a common theme: The best ways to handle specimens given the latest advances in molecular/genetic research, technology, and medicine today, that render targeted therapy for individualized care of patients, predicting the course of their disease to achieve a better outcome.

The role of the pathologists’ assistant was emphasized repeatedly. Particularly impressive was each speaker’s ability to take some very complicated material and articulate it in understandable terms. Throw in a little humor here and there, and we had a captivated audience, who followed up with some engaging and intelligent questions at the end of each lecture.

Many thanks to the coordinators: Rocky Ackroyd, Lori Marinini, Liz Regal and Sue Cowan for all their efforts in making this year’s PANE meeting such a success!

PANE and MAPA are discussing the possibility of a 2012 joint meeting in the Berkshires in Massachusetts (late February - early March 2012). Stay tuned for details!
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Susan Morgan
Chief Financial Officer
Jonathan Bakst
Larry Marquis
Bryan Radosavcev
Tom Reilly
Karen Riviello
Michael Sovocool