United States & Canadian Academy of Pathology
Leading Pathology Educational Excellence

REGISTRATION BOOKLET
101st ANNUAL MEETING

Vancouver, BC, Canada
March 17-23, 2012
Vancouver Convention Centre

Advance Registration Deadline: March 14, 2012
Join us for the 101st Annual Meeting in Vancouver

Dear Colleagues,

Please accept our warmest personal invitation to join us at the largest meeting of physician-pathologists in the world. The United States and Canadian Academy of Pathology will begin an exciting second century of educational excellence with our historic 101st Annual Meeting to be held March 17 - 23, 2012 in Vancouver, British Columbia, Canada, and we sincerely hope that you will be among our highly valued meeting participants.

In addition to the wonderful opportunity to explore the sheer natural beauty of coastal British Columbia and the world-class city of Vancouver, your appointed leadership and expert faculty have planned an impressive week of educational opportunities.

The 101st Annual Meeting will provide the opportunity to greatly enhance your Continuing Medical Education Portfolio by earning up to 62.25 AMA PRA Category 1 Credit(s)™ and 60.25 SAM credit hours to satisfy the American Board of Pathology requirements for Maintenance of Certification and state requirements for Maintenance of Licensure.

Educational offerings include 60 short courses covering 24 organ systems and subspecialty areas, six special courses of which three cover Molecular Pathology topics ranging from basic skills to advanced knowledge, and an exciting new resident workshop designed to help our pathology trainees assume leadership roles throughout their careers. 28 Companion Societies, most of which are organ-based, will be represented, and 19 case-based specialty conferences will be conducted in addition to an excellent Long Course which this year will focus on Malignant Lymphomas. Attendees will be addressed by prominent scholars who will deliver the prestigious Maude Abbott and Nathan Kaufman lectures. Moreover, we anticipate more than 1,900 on-site scientific abstract presentations again this year!

For collegial fellowship, we will again hold our popular Tuesday evening reception, benefiting the USCAP Foundation, as well as the 2nd Annual 5k Run/Walk, which will benefit the Canadian Cancer Society.

All of these activities are, of course, in addition to the thousands of warm personal encounters that will occur everywhere in the hallways, hotel lobbies, exhibit hall, and convention center thoroughfares - wherever there is an audience greater than one. This will truly be a “Coming Home” for our vast community of friends and colleagues, and we encourage you to register early and make the most of your time with us.

We also thank our many vendors and exhibitors who support this event by keeping us up to date on the latest technology and equipment to optimize our efforts in teaching, clinical diagnosis and, ultimately, treating the patients we serve.

Registration is now open at www.uscap.org, and we encourage you to register today!

With our traditionally low registration fees, the 101st USCAP Annual Meeting is a remarkable value.

See you in Vancouver!

With warmest regards,

Gregory N. Fuller, M.D., Ph.D.
The University of Texas M. D. Anderson Cancer Center President, USCAP

Bruce R. Smoller, M.D.
Executive Vice President, USCAP
Our eLibrary offers a variety of convenient ways to obtain CME/SAM credit hours from the comfort of your home or office.

Access the most current information and CME/SAM credits of meeting content online – WHEN and HOW you need it. These seminars were captured live during the USCAP continuing educational sessions and are available to you via the USCAP eLibrary.

You can view and participate in select sessions – as they were presented – captured as true multimedia re-creations with synchronized slides.

Log in now to the eAcademy at www.uscap.org to purchase any of the available courses and obtain your CME/SAM credits!

NOW AVAILABLE ONLINE!

2011 Practical Pathology Seminars (PPS) to include:
(A maximum of 12 CME/SAM credits are available for PPS)

• Breast Pathology
• Genitourinary Pathology
• Gynecologic Pathology
• Gastrointestinal Pathology

This coursework was designed to provide updated, pragmatic, problem-solving information for practicing anatomic pathologists. It will focus on the resolution of diagnostic pitfalls in an array of five difficult areas of surgical pathology.

These activities have been approved for AMA PRA Category 1 Credit™

EDUCATION ON DEMAND

Visit www.uscap.org for more information.

United States & Canadian Academy of Pathology
LEADING PATHOLOGY EDUCATIONAL EXCELLENCE

3643 Walton Way Extension | Augusta, GA 30909 | (706) 733-7550 | www.uscap.org
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USCAP OFFICE STAFF

The Academy wishes to be of service to its members. Please feel free to contact any of the USCAP staff listed below. We are available to assist you.

Bruce R. Smoller, M.D.
Executive Vice President
bruce@uscap.org

Kerry Crockett, MBA, CMP
Executive Director
kerry@uscap.org

Annette Dixon
Educational Program Coordinator
annette@uscap.org

Victoria Hann, CFRE
Director of Marketing & Development
victoria@uscap.org

Carolyn Lane
Director of Membership Services
carolyn@uscap.org

Richard Matthews, C.P.A.
Accountant
richard@uscap.org

Sally Miglionico
Membership Services Assistant
sally@uscap.org

Candace Spradley
Director of Education
candace@uscap.org

Brenden Taylor
Associate Editor, eAcademy
brenden@uscap.org

Janice Wallace
Educational Program Assistant
janice@uscap.org

Nancy West
Membership Services Assistant
nancy@uscap.org
Advance Group has been designated as the Official Housing Bureau for USCAP 2012. The Official Meeting hotels were chosen for the numerous benefits they offer attendees and we request your assistance and support by booking your hotel accommodation at one of the Official Meeting hotels. Accommodation reserved outside the Official Meeting hotel room blocks exposes the USCAP 2012 to financial penalties. Your loyalty and cooperation are greatly appreciated!

Be sure to take advantage of the special hotel rates available only to USCAP 2012 attendees at the hotels listed on our website.

**Hotel Reservations**

Official Meeting hotels will not accept reservations directly. Reservations must be made on-line through Advance Group’s secure website for instant confirmation.

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**Important Information**

The deadline for reservations is 9am PST Friday, February 11, 2012. Requests received after this date will be forwarded direct to the specific official hotels.

All hotel prices are quoted in Canadian Dollars, per night, per room. Rates are subject to an additional 12% HST, 2% Hotel Tax and 1.5% Destination Marketing Fee per night, per room. Taxes are subject to change without notice.

If you have questions, please contact Advance Group at the coordinates below:

**USCAP 2012 Housing**
c/o Advance Group Conference Management
Suite 101 -1444 Alberni Street
Vancouver, BC, Canada V6G 2Z4
Phone: 1-604-661-4925
Fax: 1-604-685-3521
E-mail: USCAP2012@advance-group.com

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**Recommended airport:** Vancouver International Airport (YVR)

**Delta Airlines**

Delta Airlines is offering discounted airfares for attendees traveling to our meeting. For assistance with reservations contact Delta Airlines Meeting Services Desk at 1-800-328-1111. Be sure to use our File Number: NG4SJ

**American Airlines Travel Discount**

American Airlines has partnered with USCAP to offer discounted airfares to those attending this meeting. Reservations can be made by calling 1-800-433-1790 or via the internet at www.AA.com. Please be sure to refer to our Discount Code, 4932BC, when making all reservations.

**Air Canada**

To book a flight on Air Canada with USCAP’s promotion code, log on to www.aircanada.com and enter 4QMMW6X1 in the search panel.

**Transportation from the Vancouver International Airport to Downtown**

The Vancouver International Airport (YVR) is approximately 11 miles from downtown. An efficient airport transfer service called Canada Line transports delegates from the airport to all the downtown hotels at a cost of approximately $8.50 each way. The airport has a new bus shuttle service in place for $15.50 one way or $25 round trip. These small airport busses leave every hour on the hour and the transfer into the city is approximately 55 minutes. Taxi fares are roughly $27 and private limousine service is $43 one-way, plus gratuity. All of these services accept credit cards, and all amounts are quoted in Canadian dollars. For all the transfer options from the Airport to Downtown, click [here](#).

City Centre Hotel Guests should get off at the Vancouver City Centre stop if you are staying at the Fairmont Hotel Vancouver or the Hyatt Regency Hotel or a hotel located in the city centre area of Vancouver.

Waterfront area hotel guests should get off at the Canada Line Waterfront Stop if you are staying at any of the hotels on the water, i.e. Pan Pacific Hotel, and Fairmont Waterfront Hotel, the Renaissance Vancouver and the Marriott Pinnacle Hotel. For schedule, click [here](#).

**Avis Car Rental**

Avis is offering discounted car rentals for attendees during our meeting. The Avis Worldwide Discount (AWD) Number is D005275. To book your reservation online, please click [here](#) or call toll free to 1-800-331-1600 and use the above discount number. The group discount is 25% and is available from 7 days before until 7 days after the event dates with unlimited free mileage.
All meeting registrations must be submitted ONLINE through the USCAP website: www.uscap.org.

General Registration Fee is required for admittance to any function at the meeting. This one fee allows you to attend all scientific abstract presentations (platforms and posters on Monday, Tuesday, and Wednesday); all the evening Specialty Conferences, the plenary lectures, exhibits, and the USCAP Foundation Benefit Reception on Tuesday evening. Additional fees are required for the Long Course, Special Courses, Resident's Workshop, and Short Courses. The Companion Meetings on Saturday and Sunday are available to persons who select one of the passes which include the General Registration and Companion Meetings as well as the passes for Companion Meetings only. The Society for Pediatric Pathology (SPP) has its own separate registration; visit the SPP website at www.spponline.org for more information.

Save $$$ - Discounted fees for Early Pre-Registration will be in effect until midnight EST January 12, 2012. Standard fees will be applied from January 13 through midnight EST on March 14, 2012. Increased fees will begin on Thursday, March 15 and continue through the On-Site Registration at the meeting.

**USCAP CANCELLATION POLICY**

Cancellations of entire registration: For cancellations received on or before January 25, 2012, a $50 administrative charge will be due. After January 25, 2012, full cancellations will be assessed an administrative charge of 25% of the total registration fee.

For individual course cancellations: An administrative charge of $25 will be made in order to process the refund.

There will be no refunds for cancellations after the start of the meeting - March 17, 2012.

**BADGE/TICKET REPLACEMENT CHARGE**

In the event of a lost name badge or tickets, there will be a $25 replacement fee for reprints. Name badges are required for admittance into course sessions and the exhibit hall.

### 2012 ANNUAL MEETING REGISTRATION FEES

#### EARLY REGISTRATION FEES — THROUGH JANUARY 12TH

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<th>Membership Type</th>
<th>General Registration Only</th>
<th>Companion Meetings Only</th>
<th>Resident's Workshop - Leadership</th>
<th>Long Course - Malignant Lymphomas</th>
<th>Short Courses per half-day</th>
<th>Special Courses: Practical Guide to Molecular Testing in Cancer</th>
<th>Special Courses: Advanced Molecular Pathology</th>
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<th>Special Courses: Careers in Investigative Pathology</th>
<th>Special Courses: Navigating the Academic Waters</th>
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#### REGISTRATION FEES — JANUARY 13TH THROUGH MARCH 14TH

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Accreditation Statement
The United States and Canadian Academy of Pathology (USCAP) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA Credit Designation Statement
The USCAP designates this live activity for a maximum of approximately 62.25 AMA PRA Category 1 Credit(s)™. Physicians should only claim the credit commensurate with the extent of their participation in the activity.

International Physicians
The American Medical Association has determined that physicians not licensed in the US who participate in this CME activity are eligible for AMA PRA Category 1 Credit(s)™.

Health Professionals
Health Professional participants (including residents and fellows-in-training) may claim hours to receive a Certificate of Participation for an activity designated for AMA PRA Category 1 Credit(s)™.

The USCAP also jointly sponsors the programs of the following Companion Societies whose programs have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the USCAP and these societies. There are two new Companion Societies that will be providing programs during this year’s Annual Meeting – the American College of Veterinary Pathology and the Association for Pathology Informatics.

Companion Symposia, which are offering SAM credits at this meeting, are indicated by an asterisk *:

- American Association of Neuropathologists *
- American Association of Ophthalmic Oncologists and Pathologists *
- American College of Veterinary Pathology
- American Society for Clinical Pathology *
- American Society for Cytopathology *
- American Society of Dermatopathology *
- American Society for Investigative Pathology
- Arthur Purdy Stout Society of Surgical Pathologists *
- Association for Molecular Pathology *
- Binford-Dammin Society of Infectious Disease Pathologists *
- Association for Pathology Informatics *
- College of American Pathologists
- Endocrine Pathology Society *
- Hans Popper Hepatopathology Society *
- History of Pathology Society
- International Society of Bone and Soft Tissue Pathology *
- International Society of Breast Pathology *
- International Society of Gynecological Pathologists *
- International Society of Urological Pathologists *
- North American Society of Head and Neck Pathology *
- Paleopathology Club
- Papanicolaou Society of Cytopathology *
- Pulmonary Pathology Society *
- Renal Pathology Society *
- Rodger C. Haggitt Gastrointestinal Pathology Society *
- Society for Cardiovascular Pathology *
- Society for Hematopathology *
- Society for Ultrastructural Pathology

CME Credits
Certificates of continuing medical education AMA PRA Category 1 Credit(s)™ will be issued through the USCAP. CME credits will only be awarded after completion of an online evaluation form.

Self-Assessment Module Credits
The USCAP is accredited by the American Board of Pathology to offer Self-Assessment Module (SAM) credits for the purpose of meeting the American Board of Pathology requirements for Maintenance of Certification. Registrants must take and pass the post-test in order to claim SAMs credit(s). The number of SAM credits has increased again this year with the addition of SAM credit hours for the Special Courses and the Long Course. There will be more than 315 SAM credits offered during this year’s meeting. Since many of these offerings are presented in overlapping time slots, an individual may earn a maximum of approximately 60.25 SAM credit hours during the Annual Meeting.
ANNUAL MEETING SCIENTIFIC PROGRAM SUMMARY

Saturday, March 17
** NEW Resident Workshop
Leadership, Collaboration, and Change in Health Care: A Residents Workshop for Essential Skills

Evening Companion Meetings
American Association of Neuropathologists, American Association of Ophthalmic Oncologists and Pathologists, "NEW* American College of Veterinary Pathologists, "NEW* Association for Pathology Informatics, Endocrine Pathology Society, International Society of Urological Pathology, Papanicolaou Society of Cytopathology in Coordination with American Society of Cytopathology, Pulmonary Pathology Society

Sunday, March 18
Morning:

Companion Meetings
Arthur Purdy Stout Society of Surgical Pathologists, Binford-Dammin Society of Infectious Disease Pathologists Joint Session with Society for Ultrastructural Pathology, College of American Pathologists, Hans Popper Hepatopathology Society, Renal Pathology Society, Society of Cardiovascular Pathology

Afternoon:
American Society of Dermatopathology, American Society for Investigative Pathology in Coordination with Association for Molecular Pathology and the Joint Session with American Society for Clinical Pathology, History of Pathology Society, International Society of Bone and Soft Tissue Pathology, International Society of Gynecological Pathologists, North American Society of Head & Neck Pathology, Paleopathology Club, Rodger C. Haggitt Gastrointestinal Pathology Society, Society for Hematopathology

Evening:
American Society of Cytopathology in Coordination with Papanicolaou Society of Cytopathology, Association for Molecular Pathology Joint Session with American Society for Clinical Pathology in Coordination with American Society for Investigative Pathology, International Society of Breast Pathology

Housestaff Fellowship Fair
5:30 - 7:30 pm

Evening Specialty Conferences:
Gynecologic Pathology, Housestaff, Ophthalmic Pathology, Pediatric Pathology, Pulmonary Pathology, and Renal Pathology

Monday, March 19
Proffered Papers | Poster Sessions | Technical Exhibits
Special Course
Introduction to Molecular Pathology for the Practicing Pathologist: Technology, Assay Interpretation, and Pitfalls

Special Course
A Practical Guide to Molecular Testing in Cancer

Special Course
Careers in Pathology Investigation: Prepare to Launch

Nathan Kaufman Timely Topics Lecture
The Cancer Genome: A Step Towards Personalized Therapy.
Dr. Bogdan A. Czerniak

Evening Specialty Conferences:
Cardiovascular Pathology, Infectious Disease Pathology, and Surgical Pathology

Tuesday, March 20
Proffered Papers | Poster Sessions | Technical Exhibits
Special Course
Basic Principles in Cytology

Special Course
Advanced Molecular Pathology

Special Course
Navigating the Academic Waters: A Survival Guide for Residents and Junior Faculty

Business Meeting and Awards Presentations
Castleman Award, Ramzi Corran Young Investigator Award, Stowell-Oribson Awards, Autopsy and Surgical Pathology Awards for Pathologists-in-Training, Harvey Goldman Mentor Award, F. Stephen Vogel Award

F.K. Mostofi Award Recipient
Dr. Celeste N. Powers

Distinguished Pathologist Award Recipient
Dr. Steven G. Silverberg

Maude Abbott Lecture
Dr. Robert J. Kurman

Evening Specialty Conferences:
Bone and Soft Tissue Pathology, Genitourinary Pathology, Head & Neck/Endocrine Pathology and Liver Pathology

Wednesday, March 21
Poster Sessions | Short Courses (16) | Technical Exhibits
Long Course
Malignant Lymphomas – Building On the Past, Moving to the Future
Drs. Steven Swerdlow and Elias Campo

Evening Specialty Conferences:
Cytopathology, Hematopathology and Neuropathology

Thursday, March 22
Short Courses (26)

Evening Specialty Conferences:
Breast Pathology, Dermatopathology and Gastrointestinal Pathology

Friday, March 23
Short Courses (18)
COMPANION SOCIETY MEETINGS

SATURDAY, MARCH 17, 2012 | 7:00 P.M.
The Academy is pleased to jointly sponsor the following Companion Society Programs

AMERICAN ASSOCIATION OF NEUROPATHOLOGISTS
Saturday, March 17, 2012 - 7:00 p.m.

CONTEMPORARY SURGICAL NEUROPATHOLOGY: NEW MODELS AND MOLECULAR DIAGNOSTICS
Moderators: M. Beatriz Lopes, University of Virginia, Charlottesville, VA and Tim-Rasmus Kiehl, University Health Network, Toronto, ON, Canada

Opening Remarks: The Historic 101st Annual Meeting:
Gregory Fuller, MD Anderson Cancer Center, Houston, TX

Virtual Diagnostics in Surgical Pathology
Sylvia Asa, University Health Network, Toronto, ON, Canada

Molecular Diagnosis of Diffuse Gliomas
Craig Horbinski, University of Kentucky, Lexington, KY

Recent Advances in Medulloblastoma and Pilocytic Astrocytoma
Charles Eberhart, Johns Hopkins University, Baltimore, MD

Surgical and Molecular Diagnosis of Peripheral Nerve Sheath Tumors
Arie Perry, University of California San Francisco, San Francisco, CA

AMERICAN ASSOCIATION OF OPHTHALMIC ONCOLOGISTS AND PATHOLOGISTS
Saturday, March 17, 2012 - 7:00 p.m.

UPDATE ON MOLECULAR MECHANISMS RELEVANT TO ORBITAL PATHOLOGY
Moderator: Valerie A. White, Vancouver General Hospital, Vancouver, BC, Canada

Introduction
Valerie A. White, Vancouver General Hospital, Vancouver, BC, Canada

Update on Inflammatory Mechanisms Pertinent to Orbital Disease
Victor Elner, University of Michigan-Kellogg Eye Center, Ann Arbor, MI

Update on Molecular Pathology of Ocular Adnexal Lymphomas
Graham Slack, British Columbia Cancer Agency, Vancouver, BC, Canada

Update on Molecular Mechanisms in Sarcomas That Occur in the Orbit
Tatyana Milman, The New York Eye and Ear Infirmary, New York, NY

Update on Molecular Pathology in Lacrimal/Salivary Gland Tumors
Valerie A. White, Vancouver General Hospital, Vancouver, BC, Canada

Update on Molecular Pathology of Optic Nerve Tumors
Fausto J. Rodriguez, Johns Hopkins University, Baltimore, MD

AMERICAN COLLEGE OF VETERINARY PATHOLOGISTS
Saturday, March 17, 2012 – 7:00 p.m.

VETERINARY NEOPLASIA: ONE MEDICINE AT THE DIAGNOSTIC LEVEL
Moderator: John M. Cullen, North Carolina State University, Raleigh, NC

Lymphoma and the One Health Paradigm
Luke Borst, North Carolina State University College of Veterinary Medicine, Raleigh, NC

Diverse Presentations of Papillomavirus Infections in Animals
Keith Linder, North Carolina State University College of Veterinary Medicine, Raleigh, NC

Advances in Molecular Pathology for the Diagnosis and Prognosis of Canine-Cancer—a Comparative View
Matti Kiupel, Michigan State University, Lansing, MI

ASSOCIATION FOR PATHOLOGY INFORMATICS
Saturday, March 17, 2012 – 7:00 p.m.

PATHOLOGY INFORMATICS: AN EVOLVING SUB-SPECIALTY WITH DIRECT IMPACT ON THE CONTINUUM OF PATIENT CARE
Moderator: John Gilbertson, Massachusetts General Hospital, Boston, MA

Introduction
John Gilbertson, Massachusetts General Hospital, Boston, MA

Automating Anatomic Pathology
Mark Tuthill, Henry Ford Hospital, Detroit, MI

Digital Pathology and Patient Care
Ulysses J. Balis, University of Michigan Health System, Ann Arbor, MI

Identifying our Patients before We Diagnose or Treat Them
Ray Aller, University of Southern California, Vista, CA

Utility of Synoptic Data Entry for Molecular, Cytogenetics and FISH Laboratories
Alexis Carter, Emory University Hospital, Atlanta, GA

Pathology Informatics Curriculum for Pathology Residents – The Association of Pathology Informatics Model
Ronald S. Weinstein, The Arizona Health Sciences Center, Tucson, AZ
 ENDOCRINE PATHOLOGY SOCIETY
Saturday, March 17, 2012 - 7:00 p.m.

MINIMIZING GRAY ZONES IN DIAGNOSIS OF ENDOCRINE LESIONS
Moderators: George Kontogeorgos, Athens General Hospital, Athens, Greece and Vania Nose, University of Miami School of Medicine, Miami, FL

Diagnostic Dilemmas in Adrenal Hyperplasia / Adenoma / Carcinoma
Anne Marie McNicol, UQCCR, Royal Brisbane and Women's Hospital, Herston, Brisbane, Australia

Interphase Among Normal, Hyperplastic and Neoplastic Parathyroids – A Modern Approach
Virginia LiVolsi, University of Pennsylvania, Philadelphia, PA

Overlapping of Neuroendocrine Hyperplasia / Tumor / Carcinoma
Günter Kloppel, Technische Universität München, Klinikum rechts der Isar, München, Deutschland

Morphologic and Molecular Gray Zones in Thyroid Proliferative Disorders
Sylvia L. Asa, University of Toronto, Toronto, Ontario, Canada

INTERNATIONAL SOCIETY OF UROLOGICAL PATHOLOGY
Saturday, March 17, 2012 - 7:00 p.m.

2012 UPDATE IN GU PATHOLOGY – WHAT’S NEW AND WHAT’S RELEVANT
Moderators: Cristina Magi-Galluzzi, Cleveland Clinic, Cleveland, OH, and Kiril Trpkov, University of Calgary, Calgary, AB, Canada

Introduction and President’s Remarks:
Rodolfo Montironi, Politecnico University of The Marche Region, School of Medicine, Ancona, Italy

Update on Testis Pathology
Dan Berney, Barts and the London NHS Trust, Barts Cancer Institute, St Bartholomew's Hospital, London, UK

Update on Bladder Pathology
Hema Samaratunga, Aquesta Pathology and University of Queensland, Brisbane, Australia

Update on Prostate Pathology
Adeboye Osunkoya, Emory University School of Medicine, Atlanta, GA

Use of Frozen Section in GU Pathology
Steven Shen, The Methodist Hospital Physician Organization and Weill Cornell Medical College of Cornell University, Houston, TX

PAPANICOLAOU SOCIETY OF CYTOPATHOLOGY IN COORDINATION WITH AMERICAN SOCIETY OF CYTOPATHOLOGY
Saturday, March 17, 2012 – 7:00 p.m.

DIAGNOSING LUNG CARCINOMA IN THE ERA OF PERSONALIZED MEDICINE: CLINICAL, PATHOLOGIC, AND MOLECULAR ASPECTS
Moderator: Matthew A. Zarka, Mayo Clinic Arizona, Scottsdale, AZ

Introduction
Matthew A. Zarka, Mayo Clinic Arizona, Scottsdale, AZ

Clinical Approach to Cytologic and Histologic Sampling in the Patient with Lung Cancer
Robert Viggiano, Mayo Clinic Arizona, Scottsdale, AZ

Practical Approach to the Diagnosis and Management of Nonsmall Cell Lung Cancer Encountered in Limited Biopsy Samples (Transbronchial and Needle Core)
Kevin O. Leslie, Mayo Clinic Arizona, Scottsdale, AZ

Respiratory Tract Cytology: From Basic Morphology to Advanced Molecular Analysis
Kim R. Geisinger, Wake Forest Baptist Medical Center, Winston-Salem, NC

AMP-CAP-IASLC Guidelines for Molecular Testing of Lung Adenocarcinoma
Neal Lindeman, Harvard Medical School, Boston, MA

PULMONARY PATHOLOGY SOCIETY
Saturday, March 17, 2012 - 7:00 p.m.

PULMONARY PATHOLOGY PRACTICE GUIDELINES
Moderators: Andrew Churg, University of British Columbia, Vancouver, BC, Canada; Lucian Chirieac, Brigham & Women's Hospital, Boston, MA and Keith Kerr, Aberdeen University School of Medicine, Aberdeen, Scotland

CAP/IASLC/AMP Guidelines for Lung Carcinoma Molecular Testing
Phillip Cagle, The Methodist Hospital, Houston, TX

ATS/ERS/JRS/ALAT Guidelines for Diagnosis and Management of Idiopathic Pulmonary Fibrosis
Thomas Colby, Mayo Clinic Scottsdale, Scottsdale, AZ

The International Mesothelioma Interest Group Guidelines for Pathologic Diagnosis of Malignant Mesothelioma
Aliya N. Husain, University of Chicago, Chicago, IL
SUNDAY MORNING, MARCH 18, 2012 | 8:30 A.M.

The Academy is pleased to jointly sponsor the following Companion Society Programs

ARTHUR PURDY STOUT SOCIETY OF SURGICAL PATHOLOGISTS
Sunday, March 18, 2012 - 8:30 a.m.

FAMILIAL CANCER SYNDROMES: THE ROLE OF THE SURGICAL PATHOLOGIST
Moderators: Vania Nose, University of Miami Miller School of Medicine, Miami, FL and Jason L. Hornick, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

Introduction
Christopher D. M. Fletcher, Brigham and Women's Hospital, Boston, MA and Vania Nose, University of Miami, Miami, FL and Jason L. Hornick, Brigham and Women's Hospital, Harvard Medical School, Boston, MA

President's Award
Christopher D. M. Fletcher, Brigham and Women's Hospital, Boston, MA

Familial Cancer Syndromes Involving the GI Tract
Joel Greenson, University of Michigan, Ann Arbor, MI

Familial Cancer Syndromes Involving the Breast
Jorge Reis-Filho, Institute of Cancer Research, London, U.K.

Familial Cancer Syndromes Involving the Ovary
Christopher P. Crum, Brigham and Women's Hospital, Boston, MA

Familial Cancer Syndromes Involving the Endocrine System
Sylvia Asa, University of Toronto, Toronto, Canada

Familial Cancer Syndromes Involving the Peripheral Nervous System
Cristina Antonescu, Memorial Sloan-Kettering Cancer Center, New York, NY

Familial Cancer Syndromes Involving the Kidney
Jesse McKenney, Stanford School of Medicine, Stanford, CA

BINFORD-DAMMIN SOCIETY OF INFECTIOUS DISEASE PATHOLOGISTS JOINT MEETING WITH SOCIETY FOR ULTRASTRUCTURAL PATHOLOGY
Sunday, March 18, 2012 - 8:30 a.m.

PITFALLS IN THE DIAGNOSIS OF INFECTIOUS DISEASES: THE CASE FOR A MULTIDISCIPLINARY APPROACH
Moderators: Michael L. Wilson, Denver Health Medical Center, Denver, CO and David N. Howell, Duke University Medical Center, Durham VA Medical Center, Durham, NC

Overview of Diagnostic Approaches to Infectious Diseases
Sebastian B. Lucas, Guy's King's and St. Thomas Hospital, London

Viral Pathogens and Impostors: Who's Who in the Electron Microscope
Sara E. Miller, Duke University Medical Center, Durham, NC

Immunohistochemical Diagnosis of Infections
Danny A. Milner, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

The Role of In Situ Hybridization in the Diagnosis of Infectious Diseases
Kathleen Montone, Hospital of the University of Pennsylvania, Philadelphia, PA

Molecular Diagnosis of Infectious Disorders
Gary Procop, Cleveland Clinic, Cleveland, OH

COLLEGE OF AMERICAN PATHOLOGISTS
Sunday, March 18, 2012 – 8:30 a.m.

BRIDGING THE DIVIDE BETWEEN MOLECULAR AND SURGICAL PATHOLOGY
Moderators: Terence J. Colgan, Mt. Sinai Hospital, Toronto, ON, Canada and Jennifer L. Hunt, University of Arkansas for Medical Sciences, Little Rock, AR

Introduction
Terence J. Colgan, Mt. Sinai Hospital, Toronto, ON, Canada and Jennifer L. Hunt, University of Arkansas Medical Center, Little Rock, AR

Pre-analytic Variables in Molecular Testing
Carolyn C. Compton, National Cancer Institute, Rockville, MD

Carcinoma of Unknown Primary Site – Is Gene Expression Profiling the Way to Go
Federico A. Monzon, Baylor College of Medicine, Houston, TX

Choosing the Right Molecular Test – Lessons from Colorectal Carcinoma
Alyssa M. Krasinskas, University of Pittsburgh Medical Center, Pittsburgh, PA

Genetic Profiling of Tumors for Systemic Therapy – Standard of Care or Passing Fad
Jorge Reis-Filho, The Institute of Cancer Research, London, UK

The Present and Future Avalanche of Molecular Testing – Build it or Buy it?
Jeffrey A. Kant, University of Pittsburgh Medical Center, Pittsburgh, PA

HANS POPPER HEPATOPATHOLOGY SOCIETY
Sunday, March 18, 2012 - 8:30 a.m.

LIVER DISEASE UPDATE, 2012
Moderator: David E. Kleiner, Laboratory of Pathology and National Cancer Institute, Bethesda, MD

Liver Neoplasms–Biology and Classification
Young Nyun Park, Yonsei University College of Medicine, Seoul, South Korea

Update on Liver Transplantation Pathology
Romil Saxena, Indiana University, Indianapolis, IN

Drug-induced Liver Injury–A Clinical Perspective
Robert J. Fontana, University of Michigan Medical Center, Ann Arbor, MI

The Pathology of Acute Liver Injury and Liver Failure
Jay Lefkowitch, Columbia University, New York, NY
SUNDAY MORNING, MARCH 18, 2012 | 8:30 A.M.

The Academy is pleased to jointly sponsor the following Companion Society Programs

RENEAL PATHOLOGY SOCIETY
Sunday, March 18, 2012 - 8:30 a.m.

RENEAL FIBROSIS
Moderators: Luan Truong, The Methodist Hospital, Houston, TX and Cornell University, New York, NY and Sanjay Jain, Washington University, St. Louis, MO

Renal Fibrosis: What? How Much? Why?: Diagnostic/Pathogenetic Features, Quantification and Clinicopathologic Implications
Alton B. Farris III, Emory University, Atlanta, GA

Renal Fibroblasts: Origins, Activation and Their Role in Renal Fibrosis
Youhua Liu, University of Pittsburgh, Pittsburgh, PA

Role of Microcirculation in the Pathogenesis of Kidney Fibrosis
Banu Sis, University of Alberta, Edmonton, Alberta, Canada

Inflammation and Fibrosis-Interactions and Impact on the Kidney
Agnes Fogo, Vanderbilt University, Nashville, TN

SOCIETY OF CARDIOVASCULAR PATHOLOGY
Sunday, March 18, 2012 - 8:30 a.m.

ATHEROESCLEROSIS: NEW INSIGHTS ON AN OLD AND FUTURE SCOURGE
Moderators: John P. Veinot, The Ottawa Hospital, Ottawa, ON, Canada and Richard N. Mitchell, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

Pathobiology of Atherosclerosis
Michael A. Gimbrone, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

Imaging Atherosclerosis in Vivo: the Quest for the Vulnerable Plaque
Brett Bouma, Massachusetts General Hospital, Massachusetts Institute of Technology, Boston, MA

Cardiovascular Risk and Atherosclerosis Prevention
Jiri Frohlich, St. Paul’s Hospital, University of British Columbia, Vancouver, British Columbia, Canada

Atherosclerosis Intervention: Stents and Restenosis
Robert Boone, St. Paul’s Hospital, University of British Columbia, Vancouver, British Columbia, Canada

New Insights into the Puzzling Pathogenesis of Calcific Aortic Stenosis
Avrum Gotlieb, University of Toronto, Toronto, ON, Canada

SUNDAY AFTERNOON, MARCH 18, 2012 | 1:30 P.M.

The Academy is pleased to jointly sponsor the following Companion Society Programs

AMERICAN SOCIETY OF DERMATOPATHOLOGY
Sunday, March 18, 2012 - 1:30 p.m.

WHAT IS NEW IN DERMATOPATHOLOGY? FROM NEOPLASTIC TO INFLAMMATORY CONDITIONS
Moderator: Victor G. Prieto, UT - MD Anderson Cancer Center, Houston, TX

What is New in Cutaneous Lymphomas?
Werner Kempf, Kempf und Pfaltz Histologische Diagnostik, Zurich, Switzerland

New Adjuvant Therapies: Cutaneous Effects (MDACC)
Jonathan L. Curry, UT - MD Anderson Cancer Center, Houston, TX

What is New in Soft Tissue Tumors of the Skin?
Andrew Folpe, Mayo Clinic, Rochester, MN

What is New in Adnexal Tumors of the Skin?
Omar Sangueza, Wake Forest University School of Medicine, Winston-Salem, NC

What is New in Melanocytic Tumors?
Pedram Gerami, Northwestern University, Chicago, IL

AMERICAN SOCIETY FOR INVESTIGATIVE PATHOLOGY IN COORDINATION WITH ASSOCIATION FOR MOLECULAR PATHOLOGY JOINT SESSION WITH AMERICAN SOCIETY FOR CLINICAL PATHOLOGY
Sunday, March 18, 2012 - 1:30 p.m.

GENOMIC PATHOLOGY IN CLINICAL DIAGNOSTICS: PROMISES AND PITFALLS OF NEW TECHNOLOGIES
Moderators: Mark E. Sobel, American Society for Investigative Pathology, Bethesda, MD; George J. Netto, Johns Hopkins Medical Institutions, Baltimore, MD and Karen L. Kaul, NorthShore University Health System, Evanston, IL

Introduction:
Mark E. Sobel, American Society for Investigative Pathology, Bethesda, MD

Keeping Up With the Next Generation: Perspectives on Massively Parallel Sequencing and Other New Technologies in Clinical Diagnostics
Wayne W. Grody, UCLA School of Medicine, Los Angeles, CA

Surgical Pathologists and the Interpretation of Genomic Information in the New Era of Genomic Medicine
Karen L. Kaul, NorthShore University Health System, Evanston, IL
Laying the Groundwork for Personalized Genomic Studies
Madhuri R. Hegde, Emory University School of Medicine, Atlanta, GA

Why Shouldn't Clinical Microbiologists Have Some Wholesome Whole-Genome Sequencing Fun
James M. Musser, The Methodist Hospital Research Institute, Houston, TX

Pancreas Pathology in the Era of Whole Genome Sequencing
Ralph Hruban, Johns Hopkins Medical Institutions, Baltimore, MD

INTERNATIONAL SOCIETY OF BONE AND SOFT TISSUE PATHOLOGY
Sunday, March 18, 2012 - 1:30 p.m.

Molecular Pathology of Ewing's Sarcoma: From Diagnosis and Target to Treatment
Enrique de Alava, University Hospital Salamanca and Cancer Research Center, Salamanca, Spain

Cartilaginous Tumors of Bone: How to Distinguish Benign and Malignant
Eiichi Konishi, Kyoto Prefectural University of Medicine, Kyoto, Japan

Benign (osteo-) Fibrous Tumors of Bone
Carrie Y. Inwards, Mayo Clinic, Rochester, MN

Vascular Tumors of Skeletal System: Current Concepts of Classification and Diagnosis
Judith Bovee, Leiden University Medical Center, Leiden, Netherlands

Giant Cell Tumor of Bone: Molecular Mechanisms
Ramses Forsyth, University Hospital Ghent, Ghent, Belgium

Phosphaturic Mesenchymal Tumor: An Update
Yong-Koo Park, Kyung-Hee University, Seoul Korea

INTERNATIONAL SOCIETY OF GYNECOLOGICAL PATHOLOGISTS
Sunday, March 18, 2012 - 1:30 p.m.

THE ORIGINS OF OVARIAN CANCER PART 1 - SEROUS TUMORS
Moderators: C. Simon Herrington, University of Dundee, Dundee, Scotland, UK, and C. Blake Gilks, Vancouver General Hospital, Vancouver, BC, Canada

Putative Precursor Lesions of Low-grade Ovarian Serous Tumors Including Endosalpingiosis and Noninvasive Implants
Robert Kurman, Johns Hopkins University School of Medicine, Baltimore, MD

Developments in the International Society of Gynecological Pathologists
C. Simon Herrington, University of Dundee, Dundee, Scotland, UK

The Mullerian Origin of Ovarian Tumors
Elvio Silva, University of Texas and M.D. Anderson Cancer Center, Houston, TX

The Clinical Implications of Recent Thinking on the Origin of Pelvic Serous Carcinoma
Dianne Miller, British Columbia Cancer Agency, Vancouver, BC, Canada

NORTH AMERICAN SOCIETY OF HEAD AND NECK PATHOLOGY
Sunday, March 18, 2012 1:30 p.m.

THE CASE THAT TAUGHT ME THE MOST: A PRESIDENTIAL PERSPECTIVE
Moderator: Susan Muller, Emory University, Atlanta, GA

Tribute to Dr. Barnes
Raja Seethala, University of Pittsburgh Medical Center, Pittsburgh, PA

Red Herrings
Samir El-Mofty, Washington University, St. Louis, MO

It's Good to Talk
Margaret Brandwein-Gensler, University of Alabama, Birmingham, AL

Location, Location, Location
Lester D. R. Thompson, Southern California Permanente Medical Group, Woodland Hills, CA

Avoiding the Oil Slick
Douglas Gnepp, Rhode Island Hospital, Providence, RI

A “Hard” Case
E. Leon Barnes, Presbyterian University Hospital, Pittsburgh, PA

Final Words
Bruce M. Wenig, Beth Israel Medical Center, New York, NY
SUNDAY AFTERNOON, MARCH 18, 2012 | 1:30 P.M.
The Academy is pleased to jointly sponsor the following Companion Society Programs

PALEOPATHOLOGY CLUB
Sunday, March 18, 2012 - 1:30 p.m.

PALEOPATHOLOGY OF CANADA
Moderators: Enrique Gerszten, Virginia Commonwealth University, Medical College of Virginia Campus, Richmond, VA and Pedro L. Fernandez, University of Barcelona, Barcelona, Spain

Trauma and Pathology in a Nineteenth Century Ontario Cemetery
Michael W. Spence, University of Western Ontario, London, ON, Canada

The Role of the Sadlermuit Eskimo in Studies of Human Adaptation and Evolution
Andrew Nelson, University of Western Ontario, London, ON, Canada

Skeletal Indicators of Habitual Activities and Pathological Conditions Among Historic Fur Traders in Western Canada
Nancy C. Lovell, University of Alberta, Edmonton, AB, Canada

RODGER C. HAGGITT GASTROINTESTINAL PATHOLOGY SOCIETY
Sunday, March 18, 2012 - 1:30 p.m.

MANIFESTATIONS OF SYSTEMIC DISEASES IN THE GI TRACT
Moderator: Rhonda K. Yantiss, Weill Medical College of Cornell University, New York, NY

Drug-Induced Injury of the GI Tract
David A. Owen, Vancouver General Hospital, Vancouver, BC, Canada

Infections in the Immunocompromised Host
Laura W. Lamps, University of Arkansas Medical Center, Little Rock, AR

Immunodeficiency Syndromes that Mimic Primary GI Disorders
Susan Abraham, MD Anderson Cancer Center, Houston, TX

Gastrointestinal Manifestations of Systemic Vasculitis
John Hart, University of Chicago Hospitals, Chicago, IL

Rodger C. Haggitt Memorial Lecture:
Cutaneous Manifestations of Gastrointestinal Diseases or …
Gastrointestinal Manifestations of Cutaneous Diseases
Bruce Smoller, USCAP

SOCIETY FOR HEMATOPOPATHOLOGY
Sunday, March 18, 2012 - 1:30 p.m.

NOVEL INSIGHTS OF HIGH-THROUGHPUT TECHNOLOGIES IN HEMATOPOIETIC CONDITIONS
Moderators: Daniel A. Arber, Stanford University, Stanford, CA and Kojo Elenitoba-Johnson, University of Michigan, Ann Arbor, MI

High Throughput Sequencing in Malignant Lymphoma
Randy D. Gascoyne, BC Cancer Agency and BC Cancer Research Centre, Vancouver, BC, Canada

Methylomic Profiling in Acute Myeloid Leukemia
Maria E. Figueroa, University of Michigan, Ann Arbor, MI

MicroRNAs in Myelodysplastic Syndromes
Aly Karsan, British Columbia Cancer Research Centre, Vancouver, BC, Canada

Introduction and Overview of Proteomics in Lymphoma
Kojo Elenitoba-Johnson, University of Michigan, Ann Arbor, MI

Practical Use of New Technologies in Hematopathology
Dan Jones, Quest Diagnostics Nichols Institute, Chantilly, VA

HISTORY OF PATHOLOGY SOCIETY
Sunday, March 18, 2012 - 3:30 p.m.

ADJUNCTIVE TECHNOLOGIES IN MORPHOLOGICAL PATHOLOGY: ADVANCES IN THE 20TH CENTURY
Moderator: Mark R. Wick, University of Virginia Hospital, Charlottesville, VA

The Development of Histochemistry in the 20th Century
Mark R. Wick, University of Virginia Hospital, Charlottesville, VA

The History of Electron Microscopy as a Diagnostic Tool
Mark R. Wick, University of Virginia Hospital, Charlottesville, VA

Diagnostic Immunohistochemistry in the 20th Century
Mark R. Wick, University of Virginia Hospital, Charlottesville, VA

In-situ Hybridization in Diagnostic Anatomic Pathology
Mark H. Stoler, University of Virginia Health System, Charlottesville, VA
SUNDAY EVENING, MARCH 18, 2012 | 7:30 P.M.

The Academy is pleased to jointly sponsor the following Companion Society Programs

AMERICAN SOCIETY OF CYTOPATHOLOGY IN COORDINATION WITH PAPANICOLAOU SOCIETY OF CYTOPATHOLOGY

Sunday, March 18, 2012 - 7:30 p.m.

FOUR “Ps” OF PULMONARY CYTOPATHOLOGY: PROCEDURAL, PREDICTIVE, PERSONALIZED AND PARTICIPATORY

Moderator: Syed Z. Ali, The Johns Hopkins Hospital, Baltimore, MD

Introduction of Program and Panelists:
Syed Z. Ali, The Johns Hopkins Hospital, Baltimore, MD

Updates in the Surgical Pathology of Lung Cancer
William D. Travis, Memorial Sloan-Kettering Cancer Center, New York, NY

Cytopathologic and Molecular Marker Analysis of Pulmonary Specimens
Fernando Schmitt, University of Porto, Portugal

Management Guidelines and Targeted Therapies: An Oncologist’s Perspective
Julie R. Brahmer, The Johns Hopkins Hospital, Baltimore, MD

Role of Cytotechnologists in the Diagnosis and Management of Patients with Lung Cancer
Jill L. Caudill, Mayo School of Health Sciences, Rochester, MN

INTERNATIONAL SOCIETY OF BREAST PATHOLOGY

Sunday, March 18, 2012 - 7:30 p.m.

IN SITU BREAST CARCINOMA – WHAT’S NEW? FROM PATHOLOGY TO CLINICAL MANAGEMENT

Moderator: Ayseghul Sahin, University of Texas M. D. Anderson Cancer Center, Houston, TX

Introduction and Award Presentation:
Ann Thor, University of Colorado, Denver, CO

Ductal Carcinoma in Situ: Morphology-Based Knowledge and Molecular Advances
Edi Brogi, Memorial Sloan-Kettering Cancer Center, New York, NY

Lobular Carcinoma in Situ: Past, Present and Future
Timothy W. Jacobs, Virginia Mason Medical Center, Seattle, WA

Clinical Management of High Risk Breast Lesions: What a Medical Oncologist Needs from Pathology
Julie R. Gralow, University of Washington, Seattle, WA

ASSOCIATION FOR MOLECULAR PATHOLOGY JOINT MEETING WITH AMERICAN SOCIETY FOR CLINICAL PATHOLOGY IN COORDINATION WITH AMERICAN SOCIETY FOR INVESTIGATIVE PATHOLOGY

Sunday, March 18, 2012 - 7:30 p.m.

GENOMIC PATHOLOGY IN CLINICAL DIAGNOSTICS: PROMISES AND PITFALLS OF NEW TECHNOLOGIES

Moderators: Karen L. Kaul, NorthShore University Health System, Evanston, IL; George J. Netto, Johns Hopkins Medical Institutions, Baltimore, MD and Mark E. Sobel, American Society for Investigative Pathology, Bethesda, MD

Introduction:
George J. Netto, Johns Hopkins Medical Institutions, Baltimore, MD

Clinical Information Systems to Support Personalized Medicine at the Bedside
Mia Levy, Vanderbilt University School of Medicine, Nashville, TN

Training Residents in Molecular Pathology: Draft AMP Curriculum
Karen L. Kaul, NorthShore University Health System, Evanston, IL

Training Residents in Genomics: The Stanford Approach
Iris Schrijver, Stanford University Medical Center, Stanford, CA

Training Residents in Genomics: The Beth Israel Deaconess Approach
Richard Haspel, Beth Israel Deaconess Medical Center, Boston, MA

Promises and Pitfalls of Genomic Information Technologies: Panel Discussion
Wayne W. Grody, UCLA School of Medicine, Los Angeles, CA; Richard Haspel, Beth Israel Deaconess Medical Center, Boston, MA; E. Blair Holladay, American Society for Clinical Pathology, Chicago, IL; Karen L. Kaul, NorthShore University Health System, Evanston, IL; George J. Netto, Johns Hopkins Medical Institutions, Baltimore, MD; Iris Schrijver, Stanford University Medical Center, Stanford, CA; and Mark E. Sobel, American Society for Investigative Pathology, Bethesda, MD

SUNDAY, MARCH 18, 2012 | 7:30 P.M.

The Academy is pleased to jointly sponsor the following Companion Society Programs
Pre-meeting slides and case histories for the Specialty Conferences will be available on the USCAP website at the beginning of March (www.uscap.org). This will allow you to study the cases to be presented at your leisure before coming to the meeting. Some cases will utilize virtual slides. The morning after each conference, the complete handout and diagnosis for the pre-meeting slides will be posted on the USCAP website.

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<td>Ophthalmic Pathology</td>
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<td>Bone and Soft Tissue Pathology</td>
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The delivery of health care in today's world is increasingly complex. Historically, medical training has centered exclusively on developing clinical and research competence in the medical sciences. However, as healthcare is being delivered more and more by integrated teams and organizations, medical education must teach physicians core competencies of working in and leading healthcare organizations. This workshop is designed to educate residents in leadership, collaboration and communication in healthcare organizations. The course syllabus and bibliography are developed from studies specific to the health care industry that focus on the role of leadership and the functioning of teams within healthcare organizations. Each session will follow a case-based curriculum with a component of didactic lectures on content related to the published literature on leadership in health care organizations. This will be complemented by small and large group experiential learning exercises when time permits. The workshop will serve as an introduction to these concepts and an extensive bibliography for further reading will be provided.

Curriculum Topics: The curriculum will provide an opportunity for residents to undertake a guided exploration of the following areas of study:

- The characteristics of effective leaders in health care
- Emotional intelligence
- Leadership models
- Theories of organizational learning and their practical application in health care
- Basic theories on how to change and improve organizations
- Basic tools to manage conflict

7:30 - 8:00 AM

Session 1 - Registration and Introductions

8:00 - 9:30 AM

Session 2 - Leadership, Collaboration and Health Care: The Tools Physicians Need to Lead
Carol Farver, M.D., M.S., Cleveland Clinic, Cleveland, OH

Objectives:
- Define emotional intelligence and the evidence for its importance in leadership.
- Discuss the important physician competencies needed to lead healthcare organizations.
- Recognize models of leadership from the organizational behavior literature.

9:30 - 10:30 AM

Session 3 - The New Physician Leader: Basic Survival Skills
Phyllis Huettner, M.D., Washington University, St. Louis, MO

Objectives:
- Define models of time management.
- Define effective tools to improve one's own time management.
- Summarize the basic elements of a mentoring network and its importance in career success.

10:30 - 12:00 PM

Session 4 - Building an Effective Health Care Team
James Stoller, M.D., M.S., Cleveland Clinic, Cleveland, OH

Objectives:
- Review the importance of teams in health care.
- Define characteristics of effective health care teams.
- Summarize and reflect on one's own role in a team.
12:00 - 1:00 PM  Working Lunch and Networking Opportunities

1:00 - 2:00 PM  
**Session 5 - How Health Care Organizations 'Learn' and Improve**  
Lisa Yerian, M.D., Cleveland Clinic, Cleveland, OH  

**Objectives:**  
• Define the concept of organizational learning.  
• Discuss how health care organizations learn from their mistakes.  
• Analyze how organizational learning can be used in the participant's organization (residency, department, hospital).  
• Apply continuous improvement concepts to a case in a pathology department.

2:00 - 3:00 PM  
**Session 6 - Making Change in Your Health Care Organization: The Basic Tools**  
Richard Zarbo, M.D., D.M.D., Henry Ford Health System, Detroit, MI  

**Objectives:**  
• Summarize why changing organizations is difficult.  
• Define a set of tools used in changing organizations.  
• Apply these tools to a specific example of implementing change in a laboratory system.

3:00 - 3:15 PM  Break

3:15 - 4:15 PM  
**Session 7 - Identifying and Resolving Conflict: Effective Tools for Tomorrow's Leaders**  
Phyllis Huettner, M.D., Washington University, St. Louis, MO and Carol Farver, M.D., M.S., Cleveland Clinic, Cleveland, OH  

**Objectives:**  
• Review the types of conflict.  
• Complete a standard inventory on how one handles conflict.  
• List tools for conflict resolution.  
• Discuss case scenarios of conflict that residents experience.

4:15 - 5:00 PM  
**Session 8 - Leading Health Care Organizations (Q and A with USCAP Leaders on 'Real World' Experience of Leading Health Organizations)**  
James Crawford, M.D., Ph.D., North Shore-Long Island Jewish Health System, Hempstead, NY
Accumulating discoveries of the biological mechanisms that control cell growth and differentiation, and developments in the clinical management of cancer, continue to expand the role of molecular technology in diagnostic surgical pathology. In this course, the fundamental principles of molecular pathology in cancer and their application to laboratory medicine will be emphasized in a format designed to be practical and straightforward. Specifically, this course is aimed at providing pathologists with a foundation in the practice of oncologic molecular pathology to include: nomenclature, commonly used techniques and their specimen requirements, assay selection and indications, diagnostic and prognostic utility, test turn-around-times, and quality assurance issues. Select cases may be presented to illustrate use in routine practice and serve as useful paradigms. Moreover, specific areas will be highlighted in which major advances can be expected and to which the key principles learned can be applied.

Course Objectives: Upon completion of this course, participants should be able to:

• Summarize the central genetic principles of oncologic molecular tests commonly used in the practice of pathology.
• Identify tests available in oncologic molecular pathology as well as their application and interpretation in screening, diagnosis, monitoring, and treatment of cancer.

Introduction
Julia A. Bridge, M.D., FACMG, University of Nebraska Medical Center, Omaha, NE

Clinical Cytogenetic and Molecular Genetic Testing in Bone and Soft Tissue Tumors
Julia A. Bridge, M.D., FACMG, University of Nebraska Medical Center, Omaha, NE

Upon completion of this presentation, the participant should be able to:

• Review sample requirements and handling for RT-PCF, FISH, and cytogenetic analysis as they pertain to evaluating mesenchymal neoplasms.
• Describe the advantages and limitations of genetic approaches commonly used in the classification of mesenchymal neoplasms to include conventional karyotyping, FISH and RT-PCR.
• Recognize the diagnostic, prognostic, and therapeutic value of molecular markers in mesenchymal neoplasia.

Molecular Testing in the Management of Patients with Breast Cancer: Current Status and Future Directions
Stuart Schnitt, M.D., Beth Israel Deaconess Medical Center, Boston, MA

Upon completion of this presentation, the participant should be able to:

• Explain the molecular classification of breast cancer and its clinical implications.
• Review the uses and limitations of currently available molecular prognostic tests for patients with breast cancer.
• Describe the emerging role of genome sequencing in the management of patients with breast cancer.

Molecular Markers for Targeted Lung Cancer Therapy
John Iafrate, M.D., Ph.D., Massachusetts General Hospital, Boston, MA

Upon completion of this presentation, the participant should be able to:

• State the current genetic landscape of lung tumors.
• Identify the role of genetic testing in guiding targeted therapies in lung cancer.
• Appreciate the importance of advanced technologies in the future of pathologic assessment of tumors.

Clinical Applications of Recent Molecular Advances in Urologic Malignancies: No Longer Chasing a “Mirage”
George J. Netto, M.D., Johns Hopkins University, Baltimore, MD

Upon completion of this presentation, the participant should be able to:

• Review salient “translationally” pertinent advances in our understanding of the molecular pathogenesis of Selected Urologic Malignancies.
• Recognize Upcoming Novel Diagnostic and Prognostic markers and potential targets of Therapy in Selected Urologic Malignancies.
**Molecular Diagnostics of Lymphoma: Assays for Classification, Outcome Prediction and Therapy Response**
Dan Jones, M.D., Ph.D., Quest Diagnostics Nichols Institute, Chantilly, VA

Upon completion of this presentation, the participant should be able to:
- Select the appropriate and most cost-effective molecular and cytogenetic testing for workup of lymphomas and tissue-based leukemic infiltrates of various types.
- Assess the technology, limitations and benefits of next generation mutation, array and transcriptional profiling in lymphomas.

**GIST and Melanoma: The KIT Connection and So Much More**
Alexander Lazar, M.D., Ph.D., University of Texas M. D. Anderson Cancer Center, Houston, TX

Upon completion of this presentation, the participant should be able to:
- Illustrate the techniques and results of molecular testing for gastrointestinal stromal tumor (GIST) and melanoma.
- Recognize the association between histologic and molecular features in GIST and melanoma.
- Interpret the emerging role of molecular diagnostics in patient management for GIST and melanoma.

**Colorectal Cancer: Molecular Testing for the Surgical Pathologist**
Kevin C. Halling, M.D., Ph.D., Mayo Clinic, Rochester, MN

Upon completion of this presentation, the participant should be able to:
- Discuss how MSI and DNA mismatch repair IHC testing and germline DNA mismatch repair gene sequencing are used to identify, diagnose, and manage patients with HNPCC.
- Explain how microsatellite instability testing can be used to assess stage II and III CRC patients’ prognosis and response to 5FU treatment.
- Describe how KRAS and BRAF testing can be used to predict response to anti-EGFR therapies for patients with metastatic colorectal cancer (CRC).

**Molecular Diagnostics of Thyroid Cancer**
Yuri E. Nikiforov, M.D., Ph.D., University of Pittsburgh, UPMC Presbyterian, Pittsburgh, PA

Upon completion of this presentation, the participant should be able to:
- Prepare a summary of the most common molecular alterations in thyroid tumors and their histopathologic correlations.
- Discuss specimen requirements and techniques for molecular testing of thyroid surgical resections and fine needle aspiration (FNA) samples.
- Describe the diagnostic and prognostic application of specific molecular markers in thyroid cancer.

**Question Period and Concluding Remarks**
It is becoming more and more important to go beyond morphology in the pathologic assessment of tumors, with incorporation of molecular testing into our diagnostic algorithms. While much of this testing may be performed in molecular pathology laboratories, surgical pathologists need to be comfortable with their understanding of the technology associated with these tests in order to select adjunctive tests, incorporate molecular results into their interpretive reports, and to lead clinicopathologic correlation. Molecular pathology is a rapidly evolving specialty, with novel technologies and new complex testing being introduced all the time. However, basic technologies, including polymerase chain reaction, in situ hybridization, sequencing, and others, underpin most molecular anatomic pathology tests today. This course will provide an overview to these fundamental molecular technologies at an introductory level. The faculty will use both didactic lectures and case presentations to illustrate the techniques, discuss the interpretation of the results, and highlight some of the pitfalls of the molecular testing. A selection of standard technology, specialized techniques, and emerging assays will be introduced. The course is designed specifically for the practicing pathologist or trainee who wants to gain comfort with currently available molecular anatomic pathology techniques and result interpretation.

Overall Objectives:
Upon completion of this course, participants should be able to:
• Identify diagnostic surgical pathology cases that might benefit from additional molecular testing.
• Select the optimal technology, based on the type of tissue samples available.
• Interpret some common molecular test results.
• Recognize potential pitfalls in molecular testing for commonly applied tests.
• Illustrate the basic techniques that underpin commonly available molecular anatomic pathology assays.
• Outline specialized techniques and potential emerging technologies for molecular anatomic pathology testing.

Introduction to Basic Molecular Pathology Techniques: Fixation, Microdissection, and Polymerase Chain Reaction-based Assays
Jennifer L. Hunt, M.D., M.Ed., University of Arkansas for Medical Sciences, Little Rock, AR

Upon completion of this presentation, participants should be able to:
• Recognize the effects of fixation on nucleic acids and be able to select assays that are appropriate to the tissue material available.
• Describe the phases of a standard polymerase chain reaction.

Loss of Heterozygosity and Microsatellite Instability in Tumors: Mechanisms, Testing, and Clinical Implications
Wade Samowitz, M.D., University of Utah Health Sciences Center, Salt Lake City, UT

Upon completion of this presentation, participants should be able to:
• Define and explain the biologic mechanism behind loss of heterozygosity and microsatellite instability.
• Describe the clinical utility and methods of testing for these molecular alterations.

Applications of Tissue Genotyping in the Routine Practice of Surgical Pathology
Pei Hui, M.D., Ph.D., Yale University School of Medicine, New Haven, CT

Upon completion of this presentation, participants should be able to:
• Comprehend the basic technical aspects of short tandem repeat (STR) genotyping analysis using conventional tissue specimens.
• Describe clinical diagnostic applications of STR genotyping for in surgical pathology.

Copy Number Detection by Chromosomal Microarray Analysis
Long Phi Le, M.D., Ph.D., Massachusetts General Hospital, Boston, MA

Upon completion of this presentation, participants should be able to:
• Describe the role of copy number variation in genetics and disease.
• Characterize the methodology, utility and limitation of chromosomal microarray analysis.
Introduction to In Situ Hybridization Technology, Interpretation, and Pitfalls
Long Phi Le, M.D., Ph.D., Massachusetts General Hospital, Boston, MA
Upon completion of this presentation, participants should be able to:
• Select the appropriate approach for translocation testing in clinical testing.
• Describe the pitfalls in interpretation and scoring of FISH based testing.

HPV Detection: Testing Methodologies and Their Clinical Utility
Jennifer Laudadio, M.D., Wake Forest University Baptist Medical Center, Winston-Salem, NC
Upon completion of this presentation, participants should be able to:
• Explain the role of Human Papillomavirus in oncogenesis.
• Describe the clinical indications, appropriate sample types and available methods for HPV detection.

Principles and Applications of Real-Time Quantitative PCR
Janina Longtine, M.D., Brigham and Women’s Hospital and Harvard Medical School, Boston, MA
Upon completion of this presentation, participants should be able to:
• Explain the basic chemistry of real-time quantitative PCR and distinguish it from end-point PCR.
• Illustrate a clinical application of real-time quantitative PCR.

Sequencing to Detect Oncogene Mutations in Clinical Anatomic Pathology Applications
Jennifer L. Hunt, M.D., M.Ed., University of Arkansas for Medical Sciences, Little Rock, AR
Upon completion of this presentation, participants should be able to:
• Identify the best approach for detecting oncogene mutations in tumor samples.
• Recognize the pitfalls in common approaches for oncogene detection technology.

Questions and Answer
CAREERS IN PATHOLOGY INVESTIGATION: PREPARE TO LAUNCH

MONDAY, MARCH 19, 2012
2:00 – 4:00 P.M.

Course Directors: David M. Berman, M.D., Ph.D.,
Johns Hopkins University School of Medicine,
Baltimore, MD
Massimo Loda, M.D.,
Dana Farber Cancer Institute,
Brigham and Women's and Harvard Medical School,
Boston, MA

If investigative pathology is the “road less travelled,” publishing is the key to traveling this road. Your publications show where you have been and where you are going. In addition, grant funding is essential for the success of an academic laboratory. Finally, alternative career pathways in industry are becoming an attractive alternative to academia while industry increasingly collaborates with university-based pathologists. This course will call on established experts in pathology to guide you in writing and publishing papers as well as successful grant proposals. It will also outline pathology career pathways in industry as well as collaborations between industry and academics.

Introductory Remarks
David M. Berman, M.D., Ph.D., Johns Hopkins University School of Medicine, Baltimore, MD, and Massimo Loda, M.D., Dana Farber Cancer Institute, Harvard Medical School, Boston, MA

Launching a Career in Pathology Investigation
Sylvia Asa, M.D. University Health Network, Toronto, ON, Canada

Upon Completion of this presentation, the participant will be able to:
• Recognize opportunities in pathology investigation as a broad continuum from part-time roles, to lifelong commitments.
• Appreciate the importance of focusing on an important and interesting problem.
• Develop strategies for managing competing commitments between clinical and research roles.
• Determine strategies for maintaining work-life balance.

“Who is Going to Fund Your Research?”
Donna Vogel, M.D., Ph.D., Johns Hopkins Medical Institutions, Baltimore, MD

Upon completion of this presentation, the participant will learn to build relationships with funding agencies, including how to:
• Identify the agency’s mission and what it wants to fund.
• Acquire the funding mechanisms and pick the right one for you.
• Sign up to receive new information.
• Follow the directions.
• Work with a human!

“Collaborating with Industry as an Investigative Pathologist”
Massimo Loda, M.D., Dana Farber Cancer Institute, Harvard Medical School, Boston, MA

Upon completion of this presentation, participants should be able to:
• Compare and contrast investigative pathologists’ roles in academia and industry.
• Describe risks and rewards of academic-industrial research collaborations.

“Getting Your Paper Published: An Editor’s Perspective”
Peter Hall, M.D., Ph.D, FRCPath, King Faisal Specialist Hospital & Research Centre and Alfaisal University College of Medicine, Riyadh, Kingdom of Saudi Arabia

Upon completion of this presentation, by means of 10 simple lessons the problems and pitfalls of getting a manuscript published will be reviewed, and participants should be able to:
• Develop your skills by reading.
• Formulate something to say.
• Prepare the structure of a scientific article.
Use the simple rules of writing.
Select where to send your paper.
Comprehend instructions to authors; the need to worry about detail.
Follow steps after manuscript submission.
Illustrate what editors like.
Recognize what editors do not like!
Prepare to not give up; but do understand the peer review process.

“Investigative Pathology from the Perspective of a Surgical Pathologist”
Christopher Fletcher, M.D., FRCPath, Harvard Medical School and Brigham and Women’s Hospital, Boston, MA

Upon completion of this presentation, participants should be able to:
• Determine the value of surgical pathology in furthering medical research.
• Summarize the rewards and perils of collaborating with academic laboratories.
• Analyze how to choose a research role that fits your background, needs, and interests.

Panel Discussion with Questions from the Audience
Cytology has grown to play a major role in tumor diagnosis. Surgical pathologists who may have had limited or no specialized training in cytology, are increasingly asked to render more definitive diagnoses based on small cytological samples, and/or provide immediate interpretations for radiology-guided FNAs.

This special course emphasizes the essentials and basics of diagnostic cytology, and is intended for surgical pathologists who wish to be introduced or re-introduced to the discipline of cytology, or those who are interested in a "refresher" in general basic cytology. This course is also ideal for residents in training, and those preparing for boards or in-service exams. The faculty is made up of experts in the field, who will cover the most commonly encountered specimen types, including gynecologic, exfoliative, and FNA cytology. They will present detailed diagnostic criteria, adequacy requirements, differential diagnosis, and histopathologic correlation. Potential pitfalls, as well as the value of ancillary studies, including immunohistochemistry and molecular testing, will be discussed when relevant. There will be an ample opportunity for questions and audience participation. This course may also serve as an introduction to other cytology workshops or courses, which often tend to be of an advanced level, and more geared towards pathologists with strong cytology background.

The goal of this course is for the participants to become less intimidated by cytologic samples, and more confidently diagnose commonly encountered lesions, while still recognizing potential limitations and pitfalls. All registrants will receive a detailed text syllabus, in addition to a CD containing the PowerPoint lectures and images.

Objectives of the Course:
Upon completion of this course, participants should be able to:

- Review essentials and basics of diagnostic cytology, including gynecologic, exfoliative, and FNA cytology.
- Review detailed diagnostic criteria, adequacy requirements, and histologic correlation for different organ systems and specimen types, including normal cytology and more commonly encountered lesions.
- Recognize potential limitations, common pitfalls and differential diagnostic considerations.
- Appreciate the value of ancillary studies, including immunohistochemistry and molecular testing in the diagnostic workup.

Introduction
Tarik M. Elsheikh, M.D., Cleveland Clinic, Cleveland, OH

Fundamentals of Cytology
Tarik M. Elsheikh, M.D., Cleveland Clinic, Cleveland, OH

Upon completion of this presentation, participants should be able to:
- Review various cell types commonly encountered in cytologic specimens.
- Review general cytologic features of benign tumors, especially nuclear features.
- Review diagnostic cytologic features of malignancy, including architecture and most importantly nuclear changes.
- Discuss cytology of common specific malignancies such as squamous, adeno, small cell, and undifferentiated carcinoma.
- Recognize common pitfalls and mimickers of malignancy, including reactive/inflammatory and degenerative changes.

Cervical Cytology
Edmund S. Cibas, M.D., Brigham and Women's Hospital and Harvard Medical School, Boston, MA

Upon completion of this presentation, participants should be able to:
- Describe the role of cervical cytology in screening for cervical cancer and its precursors.
- Restate common terminology for reporting Pap test results.
- Identify the criteria for judging specimen adequacy.
- Recognize the commonly encountered infectious organisms.
- Recognize squamous and glandular lesions on a Pap test and their histologic correlates.
Effusion Cytology
Jan F. Silverman, M.D., Allegheny General Hospital and Temple University School of Medicine, Pittsburgh, PA

Upon completion of this presentation, participants should be able to:
• Outline a pattern recognition approach for effusion cytology diagnosis.
• Discuss the appropriate use of ancillary studies in the work up of problematic effusion cytology.
• Describe the value of cytologic and clinical correlation including the importance of age, gender, and site of the effusion for correct diagnosis.

Urine Cytology 101
Eva M. Wojcik, M.D., Loyola University Medical Center, Maywood, IL

Upon completion of this presentation, participants should be able to:
• Present cellular and non-cellular components of normal urine specimens.
• Recognize the pitfalls and limitations of routine urine cytology.
• Explain the limitation of cytology/histology correlation.

Basic Thyroid Cytomorphology
Zubair W. Baloch, M.D., Ph.D., Hospital of the University of Pennsylvania, Philadelphia, PA

Upon completion of this presentation, participants should be able to:
• Discuss and illustrate the basic concepts in thyroid cytomorphology.
• Generate a cytologic differential diagnosis with histologic correlation of commonly encountered thyroid lesions.
• Recognize the overlapping architectural and cytologic features of benign and malignant thyroid lesions.

Basics in Lymph Node Cytopathology
Paul E. Wakely, Jr., M.D., The Ohio State University College of Medicine, Columbus, OH

Upon completion of this presentation, participants should be able to:
• Recognize the cytomorphology of the benign lymph node and the limitations, advantages, and adequacy of this technique.
• Differentiate among the various infectious and other non-neoplastic conditions of an enlarged lymph node.
• Recognize and differentiate the FNA cytopathology of various lymphoproliferative malignancies according to the most recent WHO classification.
• Define the application of ancillary techniques to the cytopathologic diagnosis of malignant lymphoma.
• Identify cytopathologic imitators of malignant lymphoma and various non-lymphoid lesions metastatic to lymph nodes.

Respiratory Cytopathology
Celeste N. Powers, M.D., Ph.D., Virginia Commonwealth University Health System, Richmond, VA

Upon completion of this presentation, participants should be able to:
• Review the basic cytomorphologic criteria for common infectious processes and neoplasms amenable to cytdiagnosis.
• Review the use of the Diff Quik and other special stains in the diagnosis of infectious agents.
• Discuss the pitfalls and mimics associated with primary lung malignancies.
• Review the utility of immunohistochemistry in the diagnosis and subclassification of non small cell lung carcinoma.

FNA Biopsy of Liver
Richard M. DeMay, M.D., The University of Chicago, Chicago, IL

Upon completion of this presentation, participants should be able to:
• Learn normal cytology of the liver.
• Learn key diagnostic features of benign and malignant liver lesions.
• Learn to distinguish hepatocellular carcinoma from metastatic carcin.

Basic Principles of Pancreatic Cytology
Martha Bishop Pittman, M.D., Harvard Medical School and Massachusetts General Hospital, Boston, MA

Upon completion of this presentation, participants should be able to:
• Recognize normal pancreatic acinar and ductal cells.
• Distinguish gastrointestinal contamination from the stomach and duodenum from lesional epithelium.
• Classify the criteria for the common tumors of the pancreas.
• Discuss the benefits and limitations of ancillary testing in diagnosis.

Question and Answer Session
This special course will provide an in-depth consideration of recent advances in molecular biology and genetics that are enhancing the understanding of the pathogenesis of human cancer and other diseases, and impacting on the practice of diagnostic pathology. Topics will be chosen to highlight specific advances in the molecular and cell biology related to disease pathogenesis, with considerations of molecular mechanisms, genetic and cellular signaling pathways, and various methodologic approaches. The program is designed as an update for both practicing pathologists and primary investigators on these specific topics as well as general trends in the field of molecular pathology. In addition to presenting a basic scientific foundation on each topic, these lectures will provide practical information concerning how this information can be applied in diagnostic and therapeutic settings. Therefore, an important overall emphasis of this course will be translational issues that link basic discoveries with the practice of pathology.

Introduction
Frederic G. Barr, M.D., Ph.D., National Cancer Institute, Bethesda, MD

Novel Methods for the Capture and Analysis of Circulating Tumor Cells
Richard J. Cote, M.D., University of Miami Miller School of Medicine, Miami, FL

Translating Mass Spectrometry-based Proteomic Analysis of Lymphoma for Clinical and Research Applications
Megan S. Lim, M.D., Ph.D., University of Michigan, Ann Arbor, MI

Next Generation Sequencing and Anatomic Pathology: From Today’s Discovery Tool to Tomorrow’s Microscope
David G. Huntsman, M.D., University of British Columbia, Vancouver, BC, Canada

Routine Sequencing of Microbial Genomes as a Value-added Enterprise
James M. Musser, M.D., Ph.D., The Methodist Hospital System, Houston, TX

Integrins: Sticky Regulations of Normal Biology and Tumor Progression
Mary M. Zutter, M.D., Vanderbilt University, Nashville, TN

Integrating Large Scale Molecular Data Sets for Genomic-Digital Pathology Studies
Daniel J. Brat, M.D., Ph.D., Emory University School of Medicine, Atlanta, GA
NAVIGATING THE ACADEMIC WATERS:
A SURVIVAL GUIDE FOR RESIDENTS AND JUNIOR FACULTY

TUESDAY, MARCH 20, 2012
2:00 – 4:00 P.M.

Course Directors:  Sharon W. Weiss, M.D.
Emory University School of Medicine
Atlanta, GA

Peter E. Jensen, M.D.
University of Utah School of Medicine
Salt Lake City, UT

Course Description:
This course presents a wide range of topics and information junior faculty require for success in an academic pathology department. Beginning with a description of the organization of the academic medical center and flow of funds, it covers the academic appointment process, negotiating with your chair, selecting and working with a mentor, criteria for promotion, how to organize a promotion packet and curriculum vitae, oral presentations, and general advice on manuscript preparation. The format will consist of didactic segments alternating with interactive, case-based discussions. Registrants will receive case studies for review prior to the course. The course is recommended for senior residents considering an academic career in pathology as well as early career faculty.
MALIGNANT LYMPHOMAS – BUILDING ON THE PAST, MOVING TO THE FUTURE

WEDNESDAY, MARCH 21, 2012
8:00 A.M. – 5:30 P.M.

Course Directors:
Steven H. Swerdlow, M.D.
University of Pittsburgh School of Medicine
Pittsburgh, PA

Elias Campo, M.D.
Hospital Clinic, University of Barcelona
Barcelona, Spain

After a brief review of lymphoma classification and how we evaluate lymphoid proliferations in 2012, each of the major types of lymphomas will be discussed with pragmatic diagnostic issues emphasized, together with newer biologic concepts. The goal of the course is not to simply be a recitation of the 2008 WHO Bluebook, which is now 3 ½ years old, but to assist in the interpretation of what is in the Bluebook; provide updates related to new information published subsequent to the 2008 monograph; review our current standards of practice as they relate to specific lymphomas; and convey the unanswered questions actively being pursued including a glimpse at what one might expect in the future. The course will conclude with the seasoned observations of a clinician who must use the information we provide for the benefit of the patient. The lectures are aimed more at general surgical pathologists, who have an interest in keeping up with hematopathology rather than aimed at expert hematopathologists.

Introduction
Steven H. Swerdlow, M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA

Lymphoma Classification and the Tools of Our Trade
Steven H. Swerdlow, M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA

Upon completion of this presentation, participants should be able to:
• Describe basic philosophy of 2008 WHO lymphoma classification.
• Establish a standard up-to-date protocol for handling lymphoid proliferations.
• Explain the role of ancillary testing in lymphoma diagnosis.

Nodal and Leukemic Small B-Cell Neoplasms
James R. Cook, M.D., Ph.D., Cleveland Clinic, Cleveland, OH

Upon completion of this presentation, participants should be able to:
• Recognize typical examples of nodal and leukemic small B-cell neoplasms including follicular lymphoma, small lymphocytic lymphoma /chronic lymphocytic leukemia, mantle cell lymphoma, nodal marginal zone lymphoma, and lymphoplasmacytic lymphoma.
• Select and interpret ancillary studies including immunohistochemistry, flow cytometry, FISH, and metaphase cytogenetics to address the differential diagnosis of these small B-cell neoplasms.
• Enumerate recent changes to the diagnostic criteria for these entities.

Non-Cutaneous Extranodal and Splenic Small B-Cell Lymphomas
Andrew Wotherspoon, MB, BCh, FRCPath, Royal Marsden Hospital, London, England

Upon completion of this presentation, participants should be able to:
• Distinguish small B-cell lymphomas that are encountered at extranodal sites.
• Identify clinical and pathological differences between extranodal small B-cell lymphomas and their nodal counterparts.
• Describe new/provisional small B-cell entities in the spleen.

Aggressive B-Cell Lymphomas – How Many Categories Do We Need?
Jonathan Said, M.D., University of California, Los Angeles, Los Angeles, CA

Upon completion of this presentation, participants should be able to:
• Articulate new knowledge regarding the origin of mature aggressive B-cell lymphomas provided by histologic, immunohistochemical, and genomic profiling studies.
• Explain the role of the compromised immune system in the pathogenesis of aggressive B-cell lymphomas.
• Recognize unresolved issues including the nature of high grade unclassifiable, double and triple hit lymphomas.
• Identify features most helpful in diagnosing problematic subtypes of aggressive B-cell lymphoma.
The Bridge From Large B-cell Lymphomas to Hodgkin Lymphomas and Their Differential Diagnosis
Nancy Lee Harris, M.D., Massachusetts General Hospital, Boston, MA

Upon completion of this presentation, participants should be able to:
• List the defined categories of Hodgkin lymphomas and their definitions.
• Recognize the “gray zones” between Hodgkin lymphomas and aggressive B-cell lymphomas.
• Describe the use of morphology and immunophenotyping in differential diagnosis and classification.

Nodal and Extranodal T-Cell and NK-Cell Lymphomas
Elaine S. Jaffe, M.D., National Cancer Institute, Bethesda, MD

Upon completion of this presentation, participants should be able to:
• Summarize functional characteristics of T-cell and NK-cell subsets.
• Describe pathological and immunophenotypic criteria for the most common T-cell and NK-cell lymphomas.
• Explain pitfalls in the differential diagnosis of T-cell and NK-cell lymphomas.

Non-Neoplastic Mimics of Malignant Lymphoma
Lawrence M. Weiss, M.D., Clarient, a GE Healthcare Company, Aliso Viejo, CA

Upon completion of this presentation, participants should be able to:
• Identify the best methods for distinguishing reactive follicular hyperplasia from follicular lymphoma.
• Delineate the types of benign hyperplasia that can mimic diffuse lymphoma.
• Discuss the role of special studies in the distinction of hyperplasia from lymphoma at extranodal sites.

Whole Genome Profiling and Other High Throughput Technologies – Current Contributions and Future Hopes
Elias Campo, M.D., Hospital Clinic, University of Barcelona, Barcelona, Spain

Upon completion of this presentation, participants should be able to:
• Interpret the main contributions of genomic studies to the clinical diagnosis and management of lymphoid neoplasms.
• Identify current developments and new perspectives in genomic technologies including next generation sequencing that may have a practical impact over the next 5 years.

The Clinician’s Perspective – A View From the “Receiving” End
Joseph M. Connors, M.D., BC Cancer Agency, Vancouver, BC, Canada

Upon completion of this presentation, participants should be able to:
• State the crucial distinctions – aggressive versus indolent.
• Define the key biological determinants of treatment response.
• Distinguish what is essential from what is just nice to know in the pathology report.

Concluding Remarks
Steven H. Swerdlow, M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA
Upon completion of a short course, participants should be able to:

1. Enhance their spectrum of professional competence.
2. Sharpen their existing expertise and prepare for future responsibilities in practice.
3. Review basic science concepts for procedures and precepts used in practice.
4. Demonstrate current standards, techniques, criteria, classifications, etc.

Short Courses are three hours each in duration and are presented on Wednesday, Thursday and Friday, in the morning and the afternoon.

Wednesday courses are scheduled from 8:00 a.m. - 12:00 p.m. and from 1:30 - 5:30 p.m. An hour break is included in each session to allow for poster viewing.

Thursday and Friday courses are scheduled from 8:00-11:30 a.m. and from 1:00-4:30 p.m. A half hour break is included in each session.

Each course description contains information on the type of study material that will be provided. Some courses have virtual slides or digital images and case histories for advance study. These study sets will be available online before the Annual Meeting. Registrants will receive an email instructing them on how to access the online materials from the USCAP web site. After the meeting, all registrants will be sent an email containing instructions on how to access their short course materials on the USCAP website to view or keep for their future reference.

Most short courses may be used as Self-Assessment Module (SAM) credits toward satisfying the American Board of Pathology requirements for SAM for Maintenance of Certification. Successful completion of a post-test is required to earn SAM credits. Courses which may be used as SAMs will have this indicated at the end of the course description.

In keeping with the short course rotation policy, certain courses will not be offered after the 2012 meeting. This information is noted at the end of the course description of those courses. Courses which are new for 2012 are also identified.

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WEDNESDAY AM SHORT COURSES
8:00 A.M – 12 NOON

03. Common Dilemmas in Breast Pathology
Sunil Badve, M.D., FRCPath, Indiana University, Indianapolis, IN; Jorge S Reis-Filho, M.D., Ph.D., FRCPath, The Breakthrough Breast Cancer Research Centre, London, UK; and Ian O. Ellis, FRCPath, Nottingham City Hospital, Nottingham, UK

The problems in the management of pre-invasive and invasive breast lesions have been highlighted in the scientific media and more recently in the popular press. The need for a refresher course in dealing with diagnostic issues has been highlighted in several of these articles. This course addresses critical issues that impact surgical pathologists as well as those of the lives of women being treated for their breast disease. With the goal of addressing diagnostic issues, our aim is to discuss pre-invasive lesions, especially DCIS, and the assessment of histological parameters that guide the therapeutic decisions for patients with invasive disease, including immunohistochemistry for predictive markers, sentinel node biopsy reporting, and molecular taxonomy. The course is directed at an audience that includes pathologists at all stages from early residents to advanced practitioners and will provide the participants up to date information and current opinions on management of common dilemmas in breast pathology including an overview of the ASCO-CAP guidelines. Lesions to be discussed include the differential diagnoses of DCIS, papillary lesions and luminal and triple negative tumors. The presenters will also address examination of sentinel lymph nodes.

Upon the completion of the course, participants should be able to: 1) Distinguish DCIS from ADH and FEA and compare management and medico-legal issues surrounding this differential diagnosis; 2) Identify pitfalls in the diagnosis of papillary lesions of the breast, the role for special stains in making the diagnosis and treatment options; 3) Apply ASCO-CAP guidelines for ER/PR/HER2 testing; 4) Handle and interpret sentinel lymph node biopsies based upon data from clinical trials; 5) Discuss the role of molecular testing in estrogen receptor positive tumors; and 6) Explain the associations between triple negative breast cancers and heredity, the role of basal markers in making the diagnosis, treatment options for these tumors, and the role of PARP inhibition and other prognostic tests for triple negative tumors.

Virtual images and clinical histories will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus will be distributed to registrants at the meeting. After the meeting, participants will receive web access to the PowerPoint presentations given during the USCAP Annual Meeting along with the text portion of the syllabus. (NEW COURSE) This course may be used for CME credits or SAM credits.

12. Pathology of Blood Vessels: Vasculitides, Vasculopathies and Coagulopathies
J. Charles Jennette, M.D., School of Medicine, University of North Carolina at Chapel Hill, NC

The importance of accurate and rapid recognition of the diseases covered in this Short Course is evidenced by worsened outcomes when diagnosis is imprecise or delayed. In some instances, this results from misinterpretation of the nature of the injury (e.g. diagnosing a thrombotic microangiopathy as a vasculitis) or the misuse of a diagnostic term (e.g. correctly observing necrotizing arteritis but incorrectly diagnosing polyarteritis nodosa rather than microscopic polyangiitis), either of which can result in inappropriate therapy. The 2011 Chapel Hill Consensus Conference Nomenclature System for Vasculitides will be reviewed and explained. In addition, the numerous advances that have occurred in recent years in understanding the pathogenesis and/or treatment of many vascular diseases will be reviewed.

Pathologic processes that will be discussed include infectious vasculitides, giant cell arteritis, Takayasu arteritis, polyarteritis nodosa, Kawasaki disease, pauci-immune small vessel vasculitis (ANCA disease), microscopic polyangiitis, granulomatosis with polyangiitis (Wegener’s granulomatosis), eosinophilic granulomatosis with polyangiitis (Churg-Strauss syndrome), Henoch-Schönlein purpura, cryoglobulinemic vasculitis, hypocomplementemic urticarial vasculitis, primary CNS vasculitis, transplant vasculitis (rejection) and vasculopathy, atherosclerosis and arteriomegaly, diabetic vasculopathy, chronic hypertensive and senile vasculopathy, thrombotic microangiopathies (HUS, TTP, APAS), diffuse intravascular coagulation, thrombo-angiitis obliterans, amyloidosis, monoclonal immunoglobulin deposition disease, fibromuscular dysplasia, and calcific uremic arteriolopathy.

The target audience includes general pathologists, residents, fellows and subspecialist pathologists focusing on organ systems that often are affected by, or are the sites biopsied or resected in patients with vasculitides and vasculopathies, especially dermatopathologists, pulmonary pathologists, and nephropathologists.

Upon the completion of this course, participants should be able to: 1) Recognize the acute, subacute and chronic manifestations of vasculitides, vasculopathies and coagulopathies in biopsy, surgical and autopsy specimens; 2) Formulate and accurately resolve the differential diagnosis of a vasculitis, vasculopathy or coagulopathy observed in a tissue specimen by integrating histopathologic observations with appropriate special pathologic studies, laboratory data and clinical findings; 3) Explain the 2011 Chapel Hill Consensus Conference Nomenclature for Vasculitides; 4) Describe the pathogenetic mechanisms underlying specific forms of vasculitis, vasculopathy and coagulopathy; 5) Discuss the outcomes and appropriate treatment of the diseases covered.

Materials that will be provided for advance study by registrants include clinical case vignettes with clinical summaries, virtual slides, and digital images. A handout containing the PowerPoint presentation used during the short course will be provided to participants at the meeting, and the PowerPoint show will be posted on the USCAP Website to registrants after the meeting. (NEW COURSE) This course may be used for CME credits or SAM credits.

15. Pancreaticobiliary Cytology with Clinical, Endoscopic and Histologic Correlation
Helen H. Wang, M.D., Ph.D., and Tyler M. Berzin, M.D., M.S., Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA

Pancreaticobiliary cytology is one of the most challenging areas in cytology and plays a pivotal role in patient management. Both false-negative and false-positive diagnoses carry grave consequences. The interpretive errors arise from difficulties in recognizing special tumor types (such as mucinous and papillary carcinoma), and underestimating the reactive changes that can occur in this area. Along with endoscopic retrograde cholangiopancreatography (ERCP), endoscopic ultrasound (EUS) has broadened the ability to obtain specimens from a wide variety of pancreaticobiliary lesions. However, contaminant along the EUS-
guided needle path adds to the complexity of interpretation. In addition to being familiar with the cytologic pitfalls in this area, an understanding of endoscopic findings of various entities may be helpful to meet the above challenge.

Five common bile duct brushing cases and five endoscopic ultra-sound guided pancreatic fine needle aspiration cases with their corresponding histology/clinical follow-up will be used to discuss the characteristic endoscopic (with or without ultrasound) and cytologic features of various lesions with differential diagnosis and pitfalls. The cases include reactive/metaplastic changes as well as neoplastic lesions, such as intraductal papillary mucinous neoplasm, well-differentiated adenocarcinoma, metastatic carcinoma, solid-pseudopapillary tumor of the pancreas, pancreatic endocrine tumor, and serous cystadenoma of the pancreas.

Upon completion of the course, participants should be able to: 1) review the clinical and endoscopic context of lesions in this area; 2) explain the morphology of contaminants sampled along the path of the needle in this area; 3) discuss the morphology of well-differentiated adenocarcinoma and other common entities in this area; 4) identify diagnostic criteria to distinguish between well-differentiated tumors and benign reactive changes.

The course is designed for advanced residents and general pathologists, as well as those specialized in cytopathology and GI pathology. Pre-registrants will be able to view case histories, virtual slide and still images of cytologic specimens prior to the meeting on the USCAP website. A comprehensive syllabus will be distributed at the course. After the meeting, all course registrants will have access to the PowerPoint presentation with the text portion of the syllabus on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

24. Classification and Prognostication of Mesenchymal Tumors of the Gastrointestinal Tract

Brian P. Rubin M.D., Ph.D., Cleveland Clinic, Cleveland OH, and Jason L. Hornick M.D., Ph.D, Brigham and Women's Hospital, Boston, MA

We will present a practical course that focuses on mesenchymal tumors of the gastrointestinal tract. This course is designed for general surgical pathologists and pathologists-in-training who want an up-to-date review of this challenging diagnostic area.

A series of cases of mesenchymal neoplasms of the gastrointestinal tract will be presented. Specifically, we will present cases of gastrointestinal stromal tumor, leiomyoma, leiomyosarcoma, schwannoma, inflammatory fibroid polypl, clear cell sarcoma of the gastrointestinal tract, desmoid fibromatosis, perineurioma (and other polyps), PEComa, inflammatory myofibroblastic tumor, and pleomorphic fibromyxoma. Emphasis will be placed on differential diagnosis and how light microscopic features, immunohistochemistry and molecular analysis can be integrated to arrive at the correct diagnosis. Prognostic features, treatment implications and reporting issues will also be discussed.

Virtual slides and still images, along with histories, will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus summarizing diagnostic features and differential diagnosis, and providing a comprehensive reference list will be distributed at the meeting. All course registrants will also receive web access to the PowerPoints presented during the course along with the text portion of the syllabus.

Upon completion of this course, participants should be able to: 1) Recognize the histological features of a wide range of mesenchymal tumors of the gastrointestinal tract; 2) Compose an appropriate differential diagnosis; 3) Examine immunohistochemical and molecular tests to arrive at the correct diagnosis; 4) Discuss the pertinent prognostic and treatment issues relating to each diagnosis; and 5) Construct a complete surgical pathology report including data relevant for different tumor types. (NEW COURSE) This course may be used for CME credits or SAM credits.

28. Title: Renal Tumors In Adults: A Comprehensive Contemporaneous Review

Pheroze Tamboli, M.B.B.S, and Priya Rao, M.B.B.S, M.D., The University of Texas MD Anderson Cancer, Houston, TX

The objective of this course is to provide comprehensive, practical and up to date information on the most common renal tumors affecting the adult population. This is a practically oriented course that will address the ongoing educational needs of all surgical pathologists and pathology trainees. Emphasis will be placed on the practical aspects of the day-to-day practice of surgical pathology, including the use of ancillary techniques in the diagnosis and prognosis of these tumors.

Using a series of case presentations adult kidney tumors will be comprehensively reviewed, starting with specimen handling and ending with clinically relevant reporting. The topics to be discussed include specimen handling as it relates to pathology reporting requirements and tumor staging; current nomenclature of renal tumors; morphologic features of common benign and malignant tumors, especially the newer renal cell carcinoma types; diagnostic dilemmas in renal tumors, such as evaluation of needle core biopsies and frozen section diagnoses; utility and limitations of ancillary techniques; required data elements for reporting renal cell carcinomas, including data that are of clinical relevance for determining therapy and prognosis; and, finally, application of state of the art techniques for diagnosis and prognosis.

Upon completion of the course, participants should be able to: 1) Evaluate all types of renal tumor specimens; both routine and complex; 2) Confidently recognize, work up and report on all types of renal tumors seen in the adult population; 3) Resolve the most common diagnostic dilemmas; and 4) Effectively use well established as well as newer ancillary techniques to aid in the diagnosis and prognosis of renal tumors.

Registrants will be able to preview before the meeting selected course material, including virtual slides and images, on the USCAP website. A comprehensive course syllabus will be distributed at the time of the presentation. Following the meeting, additional material will be made available on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

32. How to Diagnose Clinically Relevant High Risk Gynecologic Precancerous Lesions

George L. Mutter, M.D., and Marisa R. Nucci, M.D., Harvard Medical School and Brigham and Women's Hospital, Boston, MA

This course will review a broad spectrum of interpretative problems commonly encountered in diagnosis of premalignant (in situ) epithelial lesions of the upper and lower female genital tract – from ovary to vulva. Emphasis will be placed on commonly encountered diagnostic entities. Special attention will be paid to consideration of sampling problems, modifying effects of hormonal and reactive environments on interpretation, and those diagnostic thresholds that correspond to clinical management decisions. This course is relevant to any pathologist engaged
in the interpretation of gynecologic surgical pathology specimens from trainees to established pathologists.

Upon completion of the course the participants should be able to: 1) Describe characteristics and diagnostic feature of premalignant lesions which distinguish them from carcinoma; 2) Summarize differences between benign mimics (reactive changes, hormonal effects, and other benign processes) and premalignant lesions; 3) Describe uses of special studies in common diagnostic settings; 4) Recognize the clinical implications of common pathologic diagnoses. Registrants will have access to pre-meeting materials consisting of case images and histories available to them on the USCAP Website along with a syllabus which will be distributed at the meeting. Registrants will also have access to materials posted online after the meeting including the PowerPoint handouts. (NEW COURSE) This course may be used for CME credits or SAM credits.

41. Pattern-based Algorithms in Diagnostic Liver Pathology
Romil Saxena, M.D., Indiana University School of Medicine, Indianapolis, IN and Neil D. Theise, M.D., Beth Israel Medical Center, New York, NY

This course adopts a pattern-based approach to the diagnosis of liver biopsies and provides algorithms which will aid the practicing pathologist in arriving at a diagnosis, ruling out other closely associated diseases and avoiding common pitfalls. We will provide guidelines for the most clinically relevant information that should be included in the final pathologic diagnosis. This course is intended for general pathologists of all levels of expertise including pathologists starting out in practice or pathologists who desire specialization in liver pathology along with trainees of all levels.

Participants will be introduced to an algorithm to identify the predominant pattern of injury in a liver biopsy followed by a description of the salient features of the seven common histological patterns of liver injury viz. portal cellular infiltrates, ductular reaction, lobular injury, steatosis, fibrosis, near-normal appearance and solid and cystic mass lesions. This will be followed by a discussion of the clinical and histologic features that help to distinguish the various diseases that fall under each pattern. We will focus, though not exclusively, on the most common of these diseases and end up with the information that is most clinically relevant. Upon completion of this course, participants should be able to: 1) Clarify algorithms that will aid the practicing pathologist in arriving at a diagnosis, ruling out other closely associated diseases and avoiding common pitfalls; 2) Describe guidelines for the most clinically relevant information that should be included in the final pathologic diagnosis. Registrants will receive a syllabus at the meeting, and materials will be made available after the meeting on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

46. Neuropathology After Dark: Surviving Intraoperative Frozen Section Consultation
Christine E. Fuller, M.D., Virginia Commonwealth University, Richmond, VA and Gregory N. Fuller, M.D., Ph.D., M. D. Anderson Cancer Center, Houston, TX

Intraoperative consultation is a routinely practiced technique whereby fresh tissue samples are rapidly processed and examined by a pathologist in order to provide crucial diagnostic information to the operating surgeon that will affect the subsequent course of the operation. Neurosurgical cases quite frequently require intraoperative consultation. Although many larger institutions have neuropathologists who routinely handle CNS samples, elsewhere this duty falls to the general surgical pathologist. The relatively small volume contributes to a lack of experience in this highly specialized field, resulting in a high intraoperative consultation error rate.

This course, designed for both practicing community general surgical pathologists and pathology trainees, will use a combined didactic and case-based approach to highlight a practical approach to handling neurological intraoperative consultations. The specific topics that will be covered include: 1) Be Prepared! “Must Know” Pre-intraoperative Consultation Information, 2) Neuroimaging 101: Practical Neuroradiology for the General Surgical Pathologist, 3) Preparing High Quality Cytologic and Frozen Section Slides, 4) Dealing with the Neurosurgeon: What Does the Surgeon Need to Know to Complete the Operation? Each section of the course will include 2-6 case presentations to illustrate the principles presented.

Virtual slides with corresponding case histories and radiographic images will be posted on the USCAP website for review by pre-registrants prior to the course. Provided at the course will be a comprehensive syllabus featuring helpful tips for specimen processing and workup, as well as differential diagnoses of various neuroimaging, cytologic, and histologic findings. All course registrants will also receive web access to the course PowerPoint presentations as well as the text portion of the syllabus.

Upon completion of this course, participants should be able to: 1) evaluate critical clinical information (patient age, anatomic location of the lesion, basic Magnetic Resonance Imaging results) for consistency with the histopathologic diagnosis; 2) implement effective specimen handling strategies in their daily practice to minimize intraoperative consultation misdiagnosis; 3) choose the appropriate cytologic preparation (imprint, smear, scrape, or drag) for a given brain biopsy tissue sample that will yield optimal diagnostic information that is complementary to the architectural information provided by the frozen tissue section; and 4) identify and take effective action when encountering the most common problematic issues that arise during intraoperative consultation for neurosurgical specimens. (NEW COURSE) This course may be used for CME credits or SAM credits.

WEDNESDAY PM SHORT COURSES
1:30 P.M – 5:30 P.M.

07. Core Needle Biopsy of the Breast: Diagnostic Challenges and Clinical Implications
Edi Brogi, M.D., Ph.D., Memorial Sloan Kettering Cancer Center, New York, NY and Laura C. Collins, M.D., Beth Israel Deaconess Medical Center, Boston, MA

This course will provide pathologists with an update on breast core needle biopsy procedures and interpretation, addressing areas of recurrent diagnostic difficulty and related clinical implications. Cases that illustrate diagnostic challenges and management issues on core biopsy material will be selected for discussion (for example, spindle cell lesions, fibroepithelial lesions and small glandular proliferations). Review of each of the cases selected will highlight the morphologic features diagnostic of the lesion in question, and will detail the morphologic mimics and possible pitfalls associated with the diagnosis. The value and limitations of ancillary testing, such as immunohistochemistry, to aid in the differential diagnosis will be discussed where appropriate. In addition to gaining further competence in
14. Endobronchial Ultrasound-Guided FNA (EBUS-FNA) and Endoscopic Ultrasound-Guided FNA (EUS-FNA) in the Diagnosis of Mediastinal Lesions: Cytology, Pitfalls, and Clinical Implications

Sara E. Monaco, M.D., and Walid E. Khalbuss, M.D. Ph.D., University of Pittsburgh Medical Center, Pittsburgh, PA

Endobronchial ultrasound-guided fine needle aspiration (EBUS-FNA) and transesophageal endoscopic ultrasound-guided fine-needle aspiration biopsy (EUS-FNA) are two relatively novel techniques utilizing FNA and are gaining popularity due to their success in sparing patients from having more invasive procedures (e.g., EBUS-guided FNA for lung cancer staging in lieu of mediastinoscopy). The on-site evaluation of these FNAs is essential in order to answer an important question (ex. neoplastic vs. non-neoplastic) and to decide if a more invasive procedure is required. Due to the importance of the clinical decisions and the need to have rapid answers based on limited material, it is essential for pathologists to understand how far they can go in their immediate assessment and how the diagnosis rendered will impact the surgical decision making. This workshop will allow us to share the perspective of the cytopathologist with an emphasis on the diagnostic challenges and the clinical implications of the immediate evaluation to the surgeon. The course will address medical knowledge and practice-based improvement through the use of cases that we have identified in our busy practice, including cases addressing adequacy issues, granulomatous inflammation, non-small cell carcinomas, neuroendocrine tumors (small cell carcinoma vs. large cell neuroendocrine carcinoma), and non-epithelial tumors (e.g. lymphomas, etc.), in addition to illustrative cases demonstrating the differential diagnosis and pitfalls to be aware of in these scenarios.

The course will have an introductory didactic portion discussing the diagnostic utility of EBUS and EUS-FNA, and a practical diagnostic approach to these types of FNAs. Then case-based discussions will be utilized to introduce the important issues and challenging cases in EBUS and EUS-guided FNAs. The cases will be presented in a sequential manner, starting with clinical history and radiological imaging information, on-site images, on-site diagnosis, final diagnosis, and histological follow-up. A detailed differential diagnosis with illustrative examples and pitfalls will also be shown for each case. The cases will include common and less common diagnostic entities that can be seen in these mediastinal FNAs, in addition to the pitfalls that can be encountered and the implications of the on-site evaluation to the treating physician. The course is designed for residents, fellows, cytopathologists, and general pathologists, particularly those with an interest in mediastinal or thoracic pathology and/or a desire to learn about this relatively novel application for FNA.

Upon completion of this course, participants should be able to: 1) Demonstrate the diagnostic value and advantages of EBUS and EUS-guided FNA. 2) Employ a practical cytological approach to making a diagnosis in EBUS & EUS-guided FNAs. 3) Explain the implications of the cytological diagnosis rendered to the treating thoracic surgeon or clinician. 4) Recognize the pitfalls and diagnostic challenges in EBUS and EUS-guided FNAs. 5) Discuss the utility of ancillary studies that can be utilized in EBUS and EUS-guided FNAs.

Case histories, virtual slides, and static images will be available on the USCAP website for review by registrants prior to the course. A detailed syllabus with a review of differential diagnoses and key points will be distributed to registrants at the meeting. After the meeting, all registrants will receive web access to the PowerPoint presentations given at the USCAP Annual meeting, along with the text portion of the syllabus. (NEW COURSE) This course may be used for CME credits or SAM credits.

20. Dermatopathology Greatest Hits: Top Ten Inflammatory and Neoplastic Dermatopathology Lessons Learned (So Far) from Academic Consultative Practice

Rajiv M. Patel, M.D., Douglas R. Fullen, M.D., and Alexandra C. Hristov, M.D., University of Michigan, Ann Arbor, MI

The goal of this course will be to impart a logical approach to a range of problematic inflammatory and neoplastic conditions presenting in the skin. This course is designed for general surgical pathologists, pathology trainees, as well as dermatopathologists. Identified topics reflect a subset of the most common diagnostic dilemmas seen in academic dermatopathology consultative practice.

The course will be presented in a case-based format. Pre-registrants will be able to view virtual slides and/or still images, case histories, and any clinical images prior to the meeting on the USCAP website. A syllabus with references will be distributed at the course. Registrants will have web access to the PowerPoint presentations and the text portion of the syllabus on the USCAP website after the meeting.

Upon completion of this course, participants should be able to: 1) accurately diagnose a selection of challenging inflammatory and neoplastic skin biopsies, 2) appropriately apply ancillary studies (e.g., immunohistochemistry, FISH, PCR) to challenging dermatopathology cases and avoid pitfalls in their interpretation, 3) generate clinically relevant differential diagnoses for a range of cutaneous neoplasms and dermatoses, and 4) sign-out or appropriately refer difficult dermatopathology cases with confidence. (NEW COURSE) This course may be used for CME credits or SAM credits.
This course will combine didactic and case-based presentations that will include review of morphologic features important in the distinction between non-invasive and invasive carcinoma, identification of bladder cancer variants, evaluation of invasive depth, and impact of prostatic involvement in staging. Re-evaluation of key factors in bladder cancer diagnosis and staging will be discussed in light of the new AJCC criteria. In addition, mesenchymal lesions, which often present a challenging differential diagnosis in bladder specimens, will be covered in detail. Incorporation of ancillary techniques, including immunohistochemistry, special stains and fluorescent in situ hybridization (FISH), will be included when relevant. Emphasis will be placed on delineating a step-wise, algorithmic approach to bladder specimens and differential diagnoses.

Upon completion of this course, participants should be able to: 1) recognize the distinction between various forms of non-invasive and invasive bladder lesions, 2) correctly stage invasive bladder carcinomas according to new guidelines, 3) identify mimickers of bladder neoplasia, and 4) make judicious use of ancillary techniques in the evaluation of bladder specimens.

Pre-course material will include a study set of 10 online cases posted at the USCAP website. A course syllabus will be distributed during the session. After the USCAP meeting, participants will be able to access the course presentation, additional representative histopathologic images of entities discussed, and a complete reference list on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

31. Endocervical Glandular Lesions of the Female Genital Tract: A Combined Cytologic and Histologic Approach Emphasizing Problematic Areas and Differential Diagnosis

Kristen A. Atkins, M.D., Cristina S. Kong, M.D., and Teri A. Longacre, M.D., Stanford University School of Medicine, Stanford, CA

Emerging data indicates that the pathologist’s skill in detecting cervical glandular precursor lesions is critical to the detection of precursor and early invasive cervical adenocarcinoma. This course is designed to increase the diagnostic expertise of pathologists and pathologists-in-training in the interpretation of glandular lesions encountered in cervical cytology, curettage, and biopsy specimens, as well as hysterectomy specimens. This case-based, didactic course provides the essential tools for interpretation of morphologic, immunohistochemical, and molecular diagnostic tests in the assessment of cervical specimens. The role of high-risk HPV, key cytologic findings and mimics, current ASCCP management guidelines, use of biomarkers in determining site of origin, and proper grossing techniques will be addressed. Emphasis will be placed on correlating cervical cytology findings with those in the corresponding tissue sample. Upon completion of this course, participants should be able to: 1) implement proper gross prosection techniques for cervical cone specimens and hysterectomy specimens; 2) recognize the various subtypes of adenocarcinoma, and; 3) reproducibly diagnose adenocarcinoma in situ and invasive adenocarcinoma arising in the cervix. The participant will also be able to list and recognize the common mimics of in situ and invasive cervical adenocarcinoma and reliably distinguish cervical and endometrial carcinoma in the uterine curettage/biopsy. This course will include opportunities for active audience participation, and is intended for general pathologists, gynecological pathologists, cytopathologists, residents and fellows. Digital case images will be available for review on the USCAP website prior to the course and a syllabus will be provided to participants at the course. Registrants will also have access to after meeting materials on the USCAP website. (NEW COURSE) This course may be used for CME credit or SAM credit.

35. Diagnostic Immunohistochemistry: Plagued with Potential Problems but Pregnant with Possibilities

Allen M. Gown, M.D., PhenoPath Laboratories, Seattle, WA

Immunohistochemistry (IHC) is widely and integrally employed in surgical pathology, and has become critical in many diagnostic settings. The first part of this short course updates pathologists on many of the problems relating to preanalytical, analytical, and postanalytical (interpretive) factors that can potentially lead to incorrect interpretations and diagnoses. These factors include incorporating the correct antibodies into the diagnostic panel, optimal fixation and epitope retrieval techniques, misinterpretation of immunostained slides and misinterpretation of the significance of selected immunostaining results. The second part of the course is a series of case studies highlighting the impact of IHC on tumor diagnosis, using the examples of: (a) carcinoma of unknown primary arising in the liver; (b) small, blue round cell tumor in the nasopharynx; (c) spindle cell tumor in the lung. Discussion will be focused on selection of optimal antibody panels to maximize sensitivity and specificity. The third part of the course is a review of the utility and application of several novel IHC markers, including napsin A (lung cancer), IN11 (epithelioid sarcoma and rhabdoid tumors), PAX8 (ovarian tumors), arginase 1 (hepatocellular carcinoma), beta catenin (subset of mesenchymal tumors) and TLE1 (synovial sarcoma). This course will benefit pathologists at all levels of training. Registrants will receive a syllabus at the course and have access to after meeting materials on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

39. Interpretation of the Medical Liver Biopsy: What Do Clinicians Want?

Rish K. Pai, M.D., Ph.D., Lisa Yerian, M.D., and David Barnes, M.D., Cleveland Clinic, Cleveland, OH

This is a practical course that focuses on common patterns of liver injury including acute hepatitis, chronic hepatitis, adult cholestatic liver diseases, fatty liver disease, and related entities. This course is designed for general surgical pathologists, as well as pathologists in training. Emphasis throughout the course will be on common diagnostic challenges and informative reporting.

The course will be organized as four sessions covering the above mentioned topics. Each topic will be introduced by a case presentation followed by a more complete discussion of relevant pathologic and clinical issues concerning the topic. A unique aspect of our course will be the presence of a hepatologist who will provide the course participants with valuable clinical information that will help guide interpretation and informative reporting.

A virtual slide, along with histories, for the cases that will introduce the topics will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus reviewing diagnostic features and differential diagnoses along with a comprehensive reference list will be distributed at the meeting. All course registrants will also receive web access to the complete presentation at the USCAP Annual Meeting along with the text portion of the syllabus after the meeting.

Upon completion of this course, participants should be able to: 1) identify patterns of injury commonly encountered in medical liver biopsies, 2) formulate an appropriate differential diagnosis based on the pattern
identified, 3) correlate the pattern of injury with the clinical features to
determine the correct diagnosis, 4) produce accurate and useful reports
that will help determine appropriate medical therapy. (NEW COURSE)
This course may be used for CME credits or SAM credits.

45. Systems Pathology: An Introduction to Omic Approaches in Modern Personalized Pathology

Michael H. A. Roehrl, M.D., Ph.D., Boston Medical Center,
Boston, MA; Sylvia L. Asa, M.D., Ph.D., University of Toronto,
Toronto, ON, and Massimo F. Loda, M.D., Dana Farber Cancer
Institute, Boston, MA

The practice of personalized predictive pathology as the central
diagnostic medical specialty of the future is currently undergoing major
transformations in the age of Omic technologies, including genomics,
transcriptomics, proteomics, and metabolomics.

Our Short Course will provide a basic introduction for practicing
pathologists, pathologists in training, and laboratory professionals to the
fundamentals of these groundbreaking technologies and demonstrate
their potential for applications in personalized tissue-based diagnostics.
We will review the fundamentals of Omic technologies as they relate
directly to the future of the practice of personalized pathology. We
will be discussing next gen genome and transcriptome sequencing,
the significance of cancer exome alterations for personalized treatment
decision making (and the key role of pathology), and mass spectrometry
as an up and coming exciting technology to examine the proteomes and
metabolomes of diseased tissues. We will also introduce pathologists to
the basic concepts and terminology of associated key enabling tools such
as bioinformatics and digital pathology.

Pathologists and laboratory professionals will be the key drivers for
implementing these enabling technologies and will thus transform the
practice of personalized systems medicine of the future. This course will
equip participants with the key tools for successfully mastering the future
of pathology. No previous exposure or knowledge of Omic technologies is
assumed. Registrants will be able to view pre-meeting materials consisting
of advance reading material, case studies and a problem set on the USCAP
website. A syllabus will be given to all registrants at the meeting, and
after meeting material will be posted on the USCAP website for registrant
access. (NEW COURSE) This course may be used for CME credits or
SAM credits.

THURSDAY AM SHORT COURSES
8:00 A.M. – 11:30 P.M.

04. Mesenchymal Tumors of the Breast and their Mimics: An Update and Approach to Diagnosis.
J. Jordi Rowe, MD, Steven D. Billings, M.D., Cleveland Clinic,
Cleveland, OH

General surgical pathologists and residents are not consistently exposed
to mesenchymal tumors of the breast. Compounding this problem, some carcinomas may be purely spindled or even show heterologous
mesenchymal differentiation. There are also reactive conditions which
can mimic sarcomas. In addition, the tissue may be altered by changes
often seen after treatment for breast cancer. When faced with these
lesions, the pathologist may struggle with such fundamental questions as:
Is this mesenchymal in origin or a non-mesenchymal mimic? Is it benign
or malignant? Is it even a true neoplasm? What is the most effective way
to approach this case?

This course will use a case-based approach to provide a framework for
the discussion of mesenchymal tumors of the breast. The selected cases
will be pre-circulated with a brief history and a representative glass slide.
A comprehensive syllabus will be provided at the course and CD of the
course material will be provided to participants at the end of the course.

Upon completion of this course, participants will: 1) Become familiar
with the spectrum of benign and malignant mesenchymal tumors that
are found in the breast. 2) Have a systematic approach to the diagnosis
of mesenchymal tumors of the breast. 3) Be familiar with ancillary
tests to help establish an accurate diagnosis. (LAST SCHEDULED
PRESENTATION) This course may be used for CME credits or SAM’s
credits.

10. Practice of Breast Pathology in 2012 and Beyond
Aysegul A. Sahin, M.D., and Lavinia P. Middleton, M.D., The
University of Texas MD Anderson Cancer Center

Due to advances in molecular diagnostic techniques and different
therapeutic regimens, the practice of breast pathology has changed
significantly in recent years. Pathologists are required to not only provide
histologic diagnosis (often after pre-operative therapy) but also evaluate
prognostic and predictive markers to determine the most appropriate
individualized therapeutic options for patients with breast cancer. This
practically oriented course will focus on the most diagnostically and
clinically challenging aspects of breast carcinoma and is designed for both
the general surgical pathologist and pathologist in training.

This course will use a case based approach to discuss practical aspects of
diagnosing breast pathology. While focusing on morphology, the course
will integrate recent molecular developments that aid in diagnosing and
treating patients with breast cancer.

Specific items to be addressed include specimen handling and tumor
reporting after neo-adjuvant chemotherapy, issues associated with
assessing specimens of patients with hereditary breast cancer, high-
risk borderline lesions of the breast and the challenges associated with
diagnosing lobular carcinoma. Once completing the course, participants
will gain a better understanding of the role and limitations of molecular
diagnostic tests in clinical management of breast cancer and will gain the
skills to authoritatively discuss the strength and weaknesses of current and
novel prognostic and predictive markers.

Virtual slides and still images along with histories will be posted on the USCAP website for review by pre-registrants prior to the meeting.
A comprehensive syllabus reviewing diagnostic features, differential
diagnosis and clinical relevance of entities will be distributed at the
meeting. All course registrants will also receive access after the meeting to
the PowerPoint presentation presented during the course on the USCAP
website.

Upon completion of this course, participants will be able to: Accurately
apply the molecular knowledge and diagnostic acumen presented to
appropriately diagnose challenging breast pathology cases and guide
clinical decision making. (NEW COURSE) This course may be used for
CME credits or SAM credits.
22. Modern Prostate Needle Biopsy Interpretation

Samson W. Fine, M.D., Memorial Sloan Kettering Cancer Center, New York, NY and Peter A. Humphrey, M.D., Ph.D., Washington University Medical Center, St. Louis, MO

For almost 20 years, prostate needle biopsies have been the most common modality for diagnosing prostatic adenocarcinoma. Over time, more aggressive biopsy techniques have been employed to better define the nature of cancer in the prostate gland. Current therapeutic decision-making is highly dependent on prostate needle biopsy pathologic findings in combination with PSA measurements and clinical/imaging information.

With greater recognition of prostate cancer as largely indolent for many patients with clinically localized disease, an increasing number of patients will likely opt for active surveillance / focal therapy programs rather than radical therapy. The accurate recognition of, grading, and quantitation of prostate cancer on needle biopsies will, to a large degree, determine eligibility for such protocols.

The objective of this short course is to highlight modern prostate needle biopsy interpretation and reporting, focusing on histopathologic features of well-defined and challenging areas in prostate pathology and their clinical import. Specifically, this course will discuss: 1) Criteria for the diagnosis of minimal (limited) prostate cancer and pathognomonic features; 2) The diagnosis of small foci of atypical glands (ASAP) and the role of immunohistochemistry in evaluating an atypical focus; 3) Gleason grading of prostate cancer on needle biopsy including an approach to challenging areas such as small cribriform lesions, tertiary patterns, and borderline Gleason grade 3-4 cases, including definition of poorly-formed glands; 4) Morphologic variants of prostate cancer commonly encountered on biopsy; 5) Benign mimics of prostate cancer; 6) Diagnosis of prostatic intraepithelial neoplasia (PIN) and its benign/malignant mimics; 7) Clinical importance of tumor quantitation, perineural invasion and other features for reporting on needle biopsy.

A case-based approach will be used in this course. Numerous cases will be discussed to illustrate prototypical microscopic findings as well as the wide morphological spectrum of prostate lesions. Pre-registrants will receive a website address where they can view some virtual slides and case histories prior to the course. A syllabus will be distributed to registrants at the meeting. After the meeting, all course registrants will have access to multiple representative images used in the course along with the text portion of the syllabus on the USCAP website.

This course is designed for general pathologists, residents and fellows, as well as those with expertise in urologic pathology. Upon completion of this course, participants should be able to: a) accurately apply the criteria for diagnosing prostate cancer on needle biopsy, recognize its variants and benign mimics and judiciously employ immunohistochemistry as an ancillary tool; b) employ modern Gleason grading of needle biopsy specimens, while understanding its pitfalls and watershed areas; c) describe the clinical implications of the key data elements of prostate needle biopsy reporting. This course may be used for CME credits or SAM credits.

25. Common Diagnostic Problems in Head and Neck Tumors: A Combined Cytologic and Surgical Pathology Approach

Laila Dahmoush, MBChB. and Robert A. Robinson, M.D., Ph.D., University of Iowa, Iowa City, IA

This course will present cases that focus on difficult challenges faced in cytology and surgical pathology of the head and neck. The focus points of the course will be to develop appropriate differential diagnoses based on conventional cytologic smears or histologic morphology and to narrow the differential to the correct choice. It is packed with useful tips to aid the practicing pathologist solve common problems in the diagnosis of head and neck tumors.

Directed at pathologists in practice as well as residents, the course is designed to help the course participant quickly and confidently master some of the most common problems encountered in head and neck pathology. The course will accomplish its goals by teaching and reviewing basic fundamental approaches in cytology and surgical pathology of the head and neck using key cases available for review to pre-registrants prior to the meeting as virtual slides on the USCAP website. The course directors believe that by correlating the cytologic and surgical pathology findings of these cases and their differential, a better understanding of each discipline, cytology and surgical pathology, will be realized. An important part of the course will be the interaction between the participants and the course directors. Ample time will be allotted to answer questions that arise.

Using a case-study approach, the emphasis of the course will be on the development of a practical differential diagnosis of 6 common categories of findings on fine needle aspirates. Following the presentation of the cytologic findings and differential diagnosis, the corresponding surgical pathology material will be discussed and correlated. Handouts will be provided at the meeting covering text material presented in the course along with a printed version of the text from the PowerPoint presentation that participants can follow along during the presentation.

The six common categories to be discussed are: 1) Minimally atypical squamous cells found in cystic neck masses. The differential diagnosis includes: metastatic squamous carcinoma, branchial cleft cyst and Warthin tumor. 2) Neuroendocrine tumors in aspirates of the head and neck of adults. The differential diagnosis includes: small cell carcinoma, Merkel cell carcinoma, primary neuroendocrine carcinoma of the parotid and other ‘blue cell’ tumors. 3) Hyaline and myxoid lesions with basaloid cells in salivary gland aspirates. The differential diagnosis includes: pleomorphic adenoma, adenoid cystic carcinoma and basal cell neoplasms of the salivary gland. 4) Mucinous lesions of the head and neck. The differential diagnosis includes: mucoepidermoid carcinoma and mucocele. 5) Oncocytic lesions of salivary gland. The differential diagnosis includes: oncocytoma, oncocytosis, oncocytic carcinoma and Warthin tumor. 6) Mixed basaloid and squamous cell neoplasms of the head and neck. The differential diagnosis includes: basaloid squamous carcinoma, pilomatrixoma and poorly differentiated squamous carcinoma.

Besides developing differential diagnoses in cytology, differentials will be developed and discussed in all six major categories for histologic findings as well. While in some specific lesions the histologic findings are straightforward and can quickly clarify the cytologic differential diagnosis, in many cases the corresponding surgical excision itself raises its own set of difficult problems in the differential diagnosis. In addition, where appropriate, the course directors will update the participants with the newest information on the latest basic science apropos to the
case, particularly when this information can be exploited for practical diagnostic use.

The course objectives for the participants are to: 1) explain to categorize fine needle aspirate and surgical pathology specimens from the head and neck into a diagnostic group that leads to the building of a differential diagnosis, 2) apply inclusionary and exclusionary rules based on morphologic findings that quickly narrow the differential diagnosis in head and neck tumors and 3) State the histologic and cytologic correlates of each of the lesions in the differential diagnosis.

At the end of the course the participant will be more comfortable with cytologic and histologic diagnosis in some of the most difficult areas of head and neck pathology. After the meeting, all participants will receive web access to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM's credits.

26. Approach to the Diagnosis and Classification of Myeloid Neoplasms

Attilio Orazi, M.D., FRCPath., Weill Cornell Medical College, New York, NY and Daniel A. Arber M.D., Stanford University School of Medicine, Stanford, CA

The 2008 revision of the World Health Organization (WHO) classification of hematopoietic tumors includes numerous changes to the classification of myeloid neoplasms. This course, given by two of the authors of the revised classification, will cover key diagnostic aspects of myeloid neoplasms, including acute myeloid leukemia, myelodysplastic syndromes, myeloproliferative neoplasms and the myelodysplastic/myeloproliferative overlap syndromes. An integrated diagnostic approach that includes assessment of morphologic features, immunophenotyping, cytogenetics and molecular genetics will be presented using a case-based and lecture format. This course is appropriate for practicing general pathologists, hematopathologists and pathology trainees.

Clinical histories with images of illustrative cases will be provided prior to the meeting to pre-registrants on the USCAP website. While all of the myeloid disease entities will be described in the comprehensive course syllabus distributed at the meeting, the cases presented and lecture topics will vary each year to cover key elements of the 2008 WHO classification. All registrants will also have electronic access to the Power Point case presentations and the syllabus with a selected bibliography.

Upon completion of this course, participants should be able to: 1) identify the categories of myeloid disorders included in the 2008 WHO classification of hematopoietic tumors; 2) describe the basics of the molecular genetics of myeloid proliferations, also in the light of advances in targeted molecular therapies; 3) explain the value of ancillary techniques in the diagnosis of myeloid neoplasms and how these should be integrated with morphology within the classificative framework. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM's credits.

34. Utility and Pitfalls of Immunohistochemistry in the Daily Diagnosis of Gynecologic Pathology

Esther Oliva, M.D., Massachusetts General Hospital, Boston, MA and Dr. Carmen Tornos, M.D., Stony Brook University Hospital, Stony Brook, NY

This short course will provide a comprehensive overview of the most often used antibodies in the differential diagnosis of common lesions/tumors involving the female genital tract. The course intends to highlight problematic aspects in the interpretation of these antibodies in specific scenarios in which the correct diagnosis is important for patient management. A broad range of antibodies will be discussed with emphasis on p16, CD10, inhibin, calretinin, WT1, CD99, c-kit, epithelial markers, OCT4, CD30, SALL4, p63, and p57 among others. Particular attention will be paid to problems in using these antibodies in isolation and emphasis will be given to the best panel of antibodies to be utilized.

The course is intended for a wide audience including general pathologists, pathologists with special interest in gynecologic pathology, fellows and residents. The course will be structured based on discussion of 8 cases representing broad but common categories of lesions/tumors of the female genital tract that will lead to discussion of differential diagnosis and the use of immunohistochemistry including: 1) mesenchymal tumors of the uterus, 2) glandular proliferations of the uterus (endometrial vs endocervical and classification of the different histologic subtypes), 3) sex cord stromal tumors of the ovary and mimics, 4) primary versus metastatic carcinomas to the ovary, 5) germ cell tumors, 6) small round cell tumors involving ovary and peritoneum, and 7) trophoblastic proliferations. There will be time for questions and discussion at the end of each case. At the conclusion of the course, the participants should be familiar with the main pitfalls associated with the interpretation of these antibodies; they should be able to identify the best panel of antibodies for lesions/tumors with overlapping morphologic features and interpret the results accurately in order to establish the correct diagnosis.

We intend to provide virtual slides, a detailed syllabus to be given out to registrants at the meeting, as well as a PowerPoint presentation. After the meeting, registrants will be able to access after meeting material on the USCAP website. (NEW COURSE) This course may be used for CME credits or SAM credits.

42. Common Questions in Thoracic Pathology Consultation Practice

Sanja Dacic, M.D., Ph.D., University of Pittsburgh Medical Center, Pittsburgh, PA and Mary Beth Beasley, M.D., Mount Sinai Medical Center, New York, NY

The course will be organized as a series of case presentations illustrating challenging situations in the diagnosis of non-neoplastic and neoplastic lung diseases that will provide a practical surgical pathology update. The value of ancillary studies in term of facilitating diagnosis, predicting the prognosis and response to therapy will be discussed as appropriate. We will provide practical tips for generation of surgical pathology reports easily understandable by pulmonologists and oncologists. The pre-registered participants will be asked to submit their impressions of the case to a website prior to course. These responses will be incorporated into case discussions. The following topics will be discussed: chronic interstitial pneumonias including recently described airway centered interstitial lung diseases, lymphoproliferative lesions of the lung including problematic issues such as pulmonary involvement by hyper IgG4 syndrome, under and over diagnosis of alveolar hemorrhage and vasculitis, bronchioloalveolar carcinoma and invasive adenocarcinoma with discussion about
43. Pathology of Hereditary Cancer

Russell Broaddus, M.D., Ph.D., Stanley Hamilton, M.D., Alexander Lazar, M.D., Ph.D., Michael Gilcrease, M.D., Ph.D., M.D. Anderson Cancer Center, Houston, TX, and Christopher Crum, M.D., Brigham and Women’s Hospital, Boston, MD

Pathologists are well-positioned to recognize patients with possible familial cancer syndromes and can alert the treating physicians of this possibility. Recognition of familial cancer syndromes is crucial in implementing cancer prevention programs at a younger age in affected patients and their siblings and children. Thus, pathologists can potentially play a very important role in cancer prevention. It is therefore the goal of this proposed short course to provide the educational framework to understand and recognize the distinguishing pathological and molecular features of hereditary cancers of the colon, uterus, ovaries, breast, and skin. Genetic testing for hereditary cancers is expensive. Recognition of the pathological features of hereditary cancers by pathologists can help to provide a more rational framework for the improved selection of patients for appropriate genetic testing.

This course is directed to pathologists in general practice, pathologists in academic practice, and pathology trainees. The course will be composed of a series of didactic lectures and case presentations that will provide the framework for learning the pathological features of certain hereditary cancers. Included in the discussions will be the laboratory techniques, including immunohistochemistry and molecular diagnostics, available to pathologists to evaluate cases suspected to be related to a hereditary syndrome.

The major educational objectives for this course include the following: 1) Describe pathology and molecular genetics of the various hereditary polypl syndromes that predispose to colon cancer, such as FAP, Juvenile Polyposis, and Hyperplastic Polyposis. 2) Recognize the pathological features characteristic of HNPCC-associated colon cancer. 3) Recognize the pathological features of BRCA-associated breast cancer and how they differ from sporadic breast cancer. 4) Explain which pathological features of breast cancer may be used to help select patients for BRCA testing. 5) Diagnose the pathological features of endometrial cancer associated with HNPCC. 6) Discuss the relationship of BRCA mutation and cancers of the ovary/fallopian tube. 7) Illustrate the principles of the gross and microscopic examination of fallopian tubes and ovaries from women with BRCA mutations as well as women in the general population. 8) Recognize the “p53 signature” associated with BRCA mutation and fallopian tube neoplasms. 9) Identify the molecular genetics and the pathological features of skin lesions associated with Neurofibromatosis, Familial Melanoma (Dysplastic Nevus Syndrome), Cowden’s Syndrome, and Muir-Torre Syndrome. 10) Summarize the molecular diagnostic testing paradigms (immunohistochemistry, microsatellite instability analysis, MLH1 methylation analysis, BRAF mutation analysis) used in the diagnostic work-up of the young patient with colon cancer, endometrial cancer, ovarian cancer, or skin cancer.

A syllabus will be distributed to registrants at the meeting. After the meeting, all participants will receive web access to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM's credits.

47. Glomerular Diseases: Differential Diagnosis, Histologic Variants and New Classifications

Mark Haas, M.D., Ph.D., Cedars-Sinai Medical Center, Los Angeles, CA and Anthony Chang, M.D., University of Chicago Medical Center, Chicago, IL

This short course focuses on practical issues that are encountered during the evaluation of medical native renal biopsies. Glomerular diseases to be presented include: 1) focal segmental glomerulosclerosis (FSGS), collapsing and not otherwise specified (NOS) variants, 2) membranous nephropathy, 3) membranoproliferative glomerulonephritis, 4) IgA nephropathy, 5) lupus nephritis, 6) anti-glomerular basement membrane (anti-GBM) nephritis, 7) Alport syndrome, 8) fibrillar glomerulonephritis, 9) diabetic nephropathy. Important diagnostic features and clinically relevant pathologic features that have prognostic or therapeutic implications will be discussed. Furthermore, histopathologic classifications for FSGS, IgA nephropathy, lupus nephritis, diabetic nephropathy, and ANCA-associated glomerulonephritis have been recently established through international collaborative efforts and these will be reviewed with emphasis on the clinically relevant pathologic features.

Upon completing this course, participants should be able to: 1) systematically approach the evaluation of glomeruli, incorporating light, immunofluorescence, and electron microscopy in diagnosing glomerular diseases; 2) recognize the major histopathologic, immunopathologic, and ultrastructural features of common glomerular diseases and their histologic variants, and; 3) apply recent pathologic classifications for FSGS, IgA nephropathy, lupus nephritis, diabetic nephropathy, and ANCA-associated glomerulonephritis in the proper context.

The course is designed for surgical pathologists who have responsibility for renal pathology cases, pathology residents, and renal pathology fellows. Pre-registrants will be able to preview virtual slides and still images of the cases prior to the meeting on the USCAP website, including light microscopy, immunofluorescence, and electron microscopy. A course syllabus reviewing diagnostic features, differential diagnosis, pathologic classifications and providing a comprehensive reference list will be distributed at the meeting. All course registrants will also receive web access to the PowerPoint presented at the USCAP Annual Meeting along with the text portion of the syllabus after the meeting. (NEW COURSE) This course may be used for CME credits or SAM credits.
51. Infectious Disease Pathology: A Practical Approach for General Surgical Pathologists

Dan Milner, M.D., The Brigham & Women's Hospital, Boston, MA, and Laura Lamps, M.D., University of Arkansas Medical Sciences, Little Rock, AR

This course is intended primarily for practicing general surgical pathologists and residents in training with an interest in infectious disease pathology.

Many pathologists receive very little morphologic infectious disease training in their residency programs, nor are they experienced in correlating the morphologic diagnosis of infectious diseases with helpful molecular and microbiological tests. For these reasons, many pathologists are uncomfortable with the diagnosis of infectious diseases, even though most general surgical pathologists regularly encounter infectious diseases affecting various organ systems in their practices.

This course provides a practical, algorithmic approach to the morphologic diagnosis of commonly encountered infectious diseases, as well as an update on helpful molecular and microbiological tests that can be used in the diagnosis of infectious diseases. The course will also cover clinical correlates, implications for therapy, and reporting issues. Infectious diseases of various organ systems that may be encountered in general surgical pathology practice will be addressed using case illustrations, and will include the diagnosis of fungal infections; bacterial granulomatous infections; parasitic; viral infections; and bacterial enterocolitis. We will also discuss the use of immunohistochemistry and molecular techniques in the diagnosis of infectious diseases in surgical pathology practice.

At the end of the course, registrants will be able to: 1) Practice a practical algorithmic approach to the diagnosis of infectious diseases that can be utilized in specimens from multiple organ systems. 2) Explain the use of molecular and microbiological techniques for the diagnosis of infectious diseases, which can complement the morphologic diagnosis of infections. 3) Describe the use of immunohistochemistry in the diagnosis of infectious diseases. 4) Determine clinical correlations, epidemiologic issues, and therapeutic implications of infectious disease diagnoses.

Representative virtual slides will be uploaded on the USCAP website for review by pre-registrants before the course. Course registrants will receive a complete syllabus, as well as web access to PowerPoint material along with the text portion of the syllabus after the meeting. This course may be used for CME credits or SAM credits.

53. Diagnoses and Dilemmas in Pancreaticobiliary Pathology: Neoplasms, Mimics, and Staging in Lesions of the Pancreas, Ampulla of Vater, and Gallbladder

Susan C. Abraham, M.D., The University of Texas M. D. Anderson Cancer Center, Houston, TX and Alyssa M. Krasinskas, M.D., University of Pittsburgh Medical Center, Pittsburgh, PA

Cholecystectomies and ampullary biopsies are common specimens in general surgical pathology practice. Dysplasias and carcinomas of the gallbladder are typically unexpected findings and can be difficult to distinguish from reactive atypia. In the ampulla, active chronic inflammation can cause severe reactive atypia that is a frequent mimic of adenoma or dysplasia. While pancreatectomies and pancreatic biopsies are less frequently encountered, the relatively recent recognition of autoimmune pancreatitis as an inflammatory mimic of pancreatic carcinoma has made pre-operative diagnosis of this condition more important and biopsies more frequent. For true neoplasms in all three sites, choosing proper staging criteria and determining margins of importance can be challenging.

This course will use a case-based format to explore these difficult diagnoses and dilemmas in pancreaticobiliary pathology. A responsive keypad system will be utilized for interactive audience participation. Upon completion of the course, participants should be able to: 1) distinguish reactive atypia from dysplasia in the gallbladder; 2) recognize benign lesions of the gallbladder (dysplasia confined to Rokitansky-Aschoff sinuses, adenomyoma, florid hyperplasia of Luschka's ducts) and separate them from invasive carcinoma; 3) distinguish inflammatory atypia of the ampulla from adenoma/dysplasia, and separate adenosomatous epithelium involving deep ampullary glands from well-differentiated adenocarcinoma; 4) explain autoimmune pancreatitis and its diagnosis on biopsies, and other reactive/inflammatory mimics of pancreatic carcinoma; and 5) effectively apply the current staging systems for carcinomas of the gallbladder, ampulla, and pancreas.

This course is intended for both practicing surgical pathologists and pathologists in training. Pre-registrants will be able to view the case histories, virtual slides and still images prior to the meeting on the USCAP website. A comprehensive syllabus will be distributed at the course. After the meeting, all course registrants will have access to the PowerPoint presentation and the text portion of the syllabus on the USCAP website. This course may be used for CME credits or SAM credits.

59. Non-Melanocytic Mimics of Melanoma: Problems in Differential Diagnosis

Thomas Brenn, M.D., Ph.D., FRCPath, Western General Hospital and The University of Edinburgh, Edinburgh, Scotland, and Jason L. Hornick, M.D., Ph.D., Brigham and Women’s Hospital and Harvard Medical School, Boston, MA

The correct diagnosis of melanoma can be a serious challenge even to the experienced pathologist, largely due to its broad morphological spectrum. This practical course will provide a comprehensive review of non-melanocytic tumors to be considered in the differential diagnosis of melanoma including epithelial, mesenchymal, and hematolymphoid neoplasms. Particular emphasis will be placed on the integration of clinical findings and histologic features, as well as the appropriate, directed use of immunohistochemistry in differential diagnosis. The course is suitable for a wide audience and will be especially beneficial to senior residents in pathology and fellows in dermatopathology, as well as general surgical pathologists and dermatopathologists in practice.

The course will be structured around 10 specific cases. Each case presentation will lead into a more general discussion of the entities in the differential diagnosis. In particular, each of the individual cases will be a close mimic of certain features of melanoma. The discussion will be organized to address the differential diagnosis of: 1) in situ melanoma, 2) epithelioid melanoma, 3) spindle cell melanoma, 4) desmoplastic melanoma, 5) small cell melanoma, and 6) S-100 immunopositivity.

Virtual slides corresponding to the 10 cases will be posted on the USCAP web site for review by pre-registrants prior to the meeting, along with a multiple choice-type questionnaire containing 1-2 questions about each case. After viewing the cases and formulating a diagnostic opinion, the participants will be asked to complete the questionnaire; the anonymous
results will be discussed during the course. A syllabus will be distributed to registrants at the meeting. Registrants will receive web access to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus after the meeting.

Upon completion of the course, the participants will be familiar with the spectrum of non-melanocytic tumors in the differential diagnosis of melanoma and their salient histological and immunohistochemical features. In particular, they will be comfortable interpreting these features in the appropriate clinical context. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

60. Lean Quality Improvement: A Practical Approach
Stephen S. Raab, M.D., University of Washington, Seattle, WA, and Memorial University of Newfoundland, St. John’s, NL, Canada and Maxwell L. Smith, M.D., Mayo Clinic, Scottsdale, AZ

In the current healthcare environment, there is an increased focus on improving the quality of care in all settings, including laboratory medicine. This short course models change in real anatomic pathology work processes, educates through simulation, and disseminates best practice principles and processes. The categories of attendees who would benefit most from this course include anatomic pathologists of all levels of experience, fellows, and residents.

This course is composed of two parts: 1) a short didactic portion in which Lean-based simulation improvement principles are introduced and 2) small group sessions in which participants are provided hands-on experience in simulation education and practice improvement. Simulation training will consist of written, video, audio, and “real-practice” recreation of specific scenarios that will “embed” workshop participants in a simulated practice. The participants will rotate through the steps of anatomic pathology care and will learn methods of education and problem solving in the gross room, histopathology laboratory, and pathologist office. Participants actively will investigate failures in cognition, communication, and technical skills and discuss process change best practices and barriers to change.

Prior to the course, participants will be provided with recommended reading from the existing quality improvement literature and a list of published sources of anatomic pathology quality improvement initiatives through the USCAP website. Participants will be provided a syllabus including informational material, copy of all PowerPoint slides, and selected simulation-based education examples at the meeting. After the meeting, participants will have web access to the PowerPoint presentation given during the Annual Meeting along with the text portion of the syllabus.

Upon completion of this course, participants will be able to: 1) Define quality improvement methods of root cause analysis and redesign in their laboratory, 2) Gather knowledge of simulation methods, 3) Duplicate improved skill sets including those involved in diagnosis, technical tasks, and communication. This course may be used for CME credits or SAM credits.

THURSDAY PM SHORT COURSES
1:00 P.M – 4:30 P.M.

09 Integrating Morphology and Molecular Techniques in Breast Pathology: A Guide for the Practicing Pathology
Stuart J. Schnitt M.D., Beth Israel Deaconess Medical Center and Jennifer L. Hunt M.D., University of Arkansas for Medical Sciences, Little Rock, AK

Molecular assays using a variety of techniques are currently being utilized to refine the classification of breast cancer, to assess prognosis in patients with breast cancer, and to obtain a better understanding of breast tumorigenesis and breast cancer progression. Integrating information obtained from these molecular assays with traditional pathologic assessment of breast lesions is becoming increasingly important. However, making this integration clinically relevant and useful requires that pathologists have an appreciation for the uses, techniques, and limitations of the molecular assays. A better understanding of the basics of these molecular techniques will be of value for any pathologist in current clinical practice since these assays are being used increasingly.

The goal of this course is to provide practicing pathologists and pathologists in training with 1) an understanding of the increasingly important role of various molecular assay methods in the analysis of breast lesions and 2) an appreciation of the key technical and interpretive uses and limitations of these molecular assays. Using a case-based presentation format, a clinical issue or problem in breast pathology will be presented and the corresponding molecular assay will be discussed. The molecular component will include a discussion of the basics of the technique and its application to the particular problem illustrated by the case. The cases, clinical issues, and corresponding molecular techniques to be presented are shown below:

<table>
<thead>
<tr>
<th>Case</th>
<th>Clinical Issue/Morphologic Discussion</th>
<th>Corresponding Molecular Technique/Discussion</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Specimen mix-up</td>
<td>DNA fingerprinting/specimen identity</td>
</tr>
<tr>
<td>2</td>
<td>Molecular classification of breast cancer</td>
<td>Gene expression profiling</td>
</tr>
<tr>
<td>3</td>
<td>BRCA1-associated breast cancer</td>
<td>Mutation analysis/sequencing</td>
</tr>
<tr>
<td>4</td>
<td>Pleomorphic LCIS and other non-classical variants of LCIS</td>
<td>Array based comparative genomic hybridization (aCGH)</td>
</tr>
<tr>
<td>5</td>
<td>Low and high grade breast neoplasia pathways</td>
<td>Loss of heterozygosity (LOH)</td>
</tr>
<tr>
<td>6</td>
<td>Molecular prognostic factors/Oncotype DX</td>
<td>Reverse transcriptase polymerase chain reaction (RT-PCR)</td>
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Case histories and images will be available on the USCAP website for review by registrants prior to the course. A syllabus will be distributed to registrants at the meeting. After the meeting, all participants will receive web access to the PowerPoint presentation given at the USCAP Annual Meeting along with the text portion of the syllabus. After completion of the course, participants will be able to: 1) Identify cases in routine clinical surgical pathology practice where there is an increasingly important role for molecular assays in the evaluation of breast lesions; 2) be better able to
integrate results obtained from molecular assays with those derived from traditional methods for diagnosis of breast lesions; 3) identify technical limitations of commonly used molecular assay methods. This course may be used for CME credits or SAM credits.

16. Thyroid FNA Using the Bethesda System Category Definitions and Terminology

Edward B. Stelow, M.D., University of Virginia, Charlottesville, VA; Edmund S. Cibas, M.D., Brigham and Women’s Hospital and Harvard Medical School, Boston, MA; and William C. Faquin, M.D., Ph.D., Massachusetts General Hospital and Harvard Medical School, Boston, MA.

This course will cover thyroid fine needle aspiration in depth, including discussions of the newly-published Bethesda System/NCI diagnostic criteria and reporting framework as well as the current management of patients with a thyroid nodule. Up-to-date information will be presented on ancillary testing, including immunohistochemistry, flow cytometry, and molecular testing.

Case-based discussions will be preceded by an introductory, didactic portion discussing the utility of thyroid FNA, with a detailed discussion of the Bethesda System for Reporting Thyroid Cytopathology. Case vignettes and cytology samples will be presented and used to introduce more detailed discussions of the cytologic features of the common and less common mass-forming lesions of the thyroid gland. Less than optimal samples and atypical samples will be discussed as well as benign diseases, follicular-patterned lesions, and thyroid malignancies.

Upon completion of the course, participants will be able to: 1) state concisely the role of thyroid FNA in the care of the patient with a thyroid nodule; 2) outline the elements of a proper thyroid FNA procedure, including helpful pre-procedural information, the merits of different cytologic preparations, and the role of on-site evaluation; 3) describe the six general categories of The Bethesda System; 4) explain the definitions and diagnostic criteria for each diagnostic category with their differential diagnoses; and 5) articulate the proper use of ancillary testing.

The course is designed for residents, general pathologists, cytopathologists, and pathologists with special interest in thyroid pathology. Pre-registrants will be able to view case histories and electronic images of cases to be discussed on the USCAP website prior to the meeting. A syllabus and lecture PowerPoint files will be available at the time of and after the course. This course may be used for CME credits or SAM credits.

17. Difficult Diagnoses in Endocrine Pathology

Ricardo V. Lloyd, M.D., Ph.D., University of Wisconsin School of Medicine and Public Health, Madison, WI and Lori A. Erickson, M.D., Mayo Clinic, Rochester MN.

This is a practically oriented course that will present basic concepts in endocrine pathology to allow a logical approach to difficult diagnoses in endocrine pathology. Tumors with borderline features and needle biopsies of tumors will be presented. Images of each case will be made available. Differential diagnosis will be generated for each lesion with specific diagnostic criteria. Immunohistochemical studies useful in the differential diagnoses will be presented. Molecular genetic findings and mechanisms involved in these conditions will be discussed. The course will present a practical approach for pathologists, fellows, and residents for the diagnosis of endocrine tumors with emphasis on the diagnostic criteria in difficult areas of endocrine pathology.

A virtual slide and still images, along with histories, will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus reviewing diagnostic features and differential diagnoses will be distributed at the meeting. All course registrant will also receive web access to the PowerPoint presented at the USCAP Annual Meeting along with the text portion of the syllabus.

Upon completion of this course, participants will be able to: 1) Generate differential diagnoses and list criteria used to diagnose borderline endocrine lesions and lesions obtained by needle biopsies with limited samples; 2) Describe the immunohistochemical markers useful in the diagnosis of common endocrine lesions and the molecular basis for this conditions and; 3) Explain the clinical significance of the diagnoses. This course may be used for CME credits or SAM credits.

19. Inflammatory Disorders of the Gastrointestinal Tract: Similarities and Differences Between Adult and Pediatric Disease

Jeffrey D. Goldsmith M.D., Beth Israel Deaconess Medical Center, Children’s Hospital Boston and Harvard Medical School, Boston MA; Robert M. Najarian M.D., Beth Israel Deaconess Medical Center and Harvard Medical School, Boston MA.

While the pathologic features of inflammatory diseases of the gastrointestinal (GI) tract in adults and children are generally similar, there are important differences in the histologic appearance, differential diagnoses, and clinical presentation that may present diagnostic challenges. This purpose of this course is to provide an in depth review of several inflammatory diseases of the GI tract that show variability between the adult and pediatric populations. While the chief emphasis will be on the pathologic features, relevant clinical characteristics will also be covered.

The course will be principally based on case presentations that will be distributed to participants as virtual slides prior to the course. Diseases to be covered will include idiopathic inflammatory bowel disease, eosinophilic diseases of the esophagus (GERD / allergic/eosinophilic esophagitis), celiac disease, and diarrheal illness.

This course is designed for practicing pathologists and trainees involved in the interpretation of both adult and pediatric gastrointestinal biopsies. Pre-registrants will have the opportunity to review virtual slides and still images with clinical histories prior to the course on the USCAP website. A syllabus will be distributed to registrants at the meeting and will include a description of relevant diagnostic features, a discussion of the differential diagnosis, and a comprehensive reference list. After the meeting, all participants will receive web access to the PowerPoint presentation given during the Annual Meeting along with the text portion of the syllabus.

After completion of the course, participants will be able to: 1) accurately diagnose inflammatory diseases of the GI tract in both the adult and pediatric population; 2) explain the histologic differences between adult and pediatric GI disease that can impact accurate diagnosis; and 3) gain familiarity with the variable clinical presentations of these diseases in the adult and pediatric populations. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

This course is dedicated to the memory of Dr. Harvey Goldman.
30. A Potpourri of Mesenchymal Delights: Pattern-Oriented Approach to the Diagnosis of Soft Tissue Tumors

John R. Goldblum, M.D., Cleveland Clinic, Cleveland, OH, and Scott E. Kilpatrick, M.D., Pathologists Diagnostic Services, Novant Health Systems, Winston-Salem, NC

The course will provide a case-based, interactive presentation focusing on specific and common diagnostic problems in superficial and deep soft tissue surgical pathology. Audience participation is encouraged. We will emphasize a cytologic and pattern recognition approach to these tumors. Topics to be discussed include but are not limited to spindle cell lesions, small round cell tumors of childhood, lipomatous tumors, and myxoid neoplasms. When applicable, the role of core needle biopsy will be illustrated and discussed. Although emphasis will be predominantly placed on light microscopic features, the use of ancillary techniques, including immunohistochemistry and cytogenetic analysis, will be discussed when applicable to the particular case.

The course is designed for pathology residents and general surgical pathologists seeking a better understanding of the histologic features of some of the more common adult and pediatric soft tissue tumors. Virtual slides from the unknown cases will be available for review on the USCAP website prior to the meeting. A comprehensive syllabus will be distributed at the course, and after the course participants will be able to access the website to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus.

Upon completion of the course, the participants should be able to: 1) Confidently approach the differential diagnosis of common problematic areas in soft tissue pathology using pattern recognition. 2) Discuss and recognize diagnostic pitfalls in soft tissue pathology. 3) Identify when to avoid as well as effectively utilize ancillary techniques for the diagnosis of soft tissue lesions. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.


Wendy L. Frankel, M.D., Ohio State University Medical Center, Columbus, OH and Andrew M. Bellizzi, M.D., Brigham and Women’s Hospital, Boston, MA

Recent advances in our understanding of genetic and epigenetic events in colorectal cancer have resulted in the need to modify many of our previously held ideas about diagnosing seemingly “simple” polyps and “straightforward” colon cancers. With the elucidation of critical pathways, reporting has become more complex. Additional assessment of prognostic and predictive factors is increasingly relevant to patient care with the push for personalized medicine. In order to keep up with increasing demands for more sophisticated information, a basic understanding of the molecular underpinnings of colorectal neoplasia is essential.

This course will focus on colorectal polyps and carcinomas. Emphasis will be placed on the morphologic findings, diagnostic criteria, evolving terminology, and differential diagnosis in colorectal polyps, polyposis syndromes, and carcinoma. The role of ancillary studies including immunohistochemical and molecular testing will be discussed, including their relevance to the contemporary surgical pathology report. A case study format will be utilized.

Topics to be discussed include the following: 1) Microsatellite unstable colorectal carcinomas including those due to Lynch syndrome and occurring sporadically; 2) Serrated polyps, including those occurring in the hyperplastic polypsis syndrome, and their differential diagnosis; 3) Hamartomatous polyposis syndromes and sporadic morphologic counterparts; 4) Problem areas in staging and reporting colon cancers, with special emphasis on the changes in the 7th edition of the AJCC Cancer Staging Manual; 5) Immunophenotype of colon cancer; 6) Significance of assessment of EGFR signaling pathway activation in metastatic colon cancer.

Upon completion of the course, participants will be able to: 1) describe the microsatellite unstable (MSI-H) pathway to colorectal neoplasia and know the morphologic and immunohistochemical features and nomenclature of MSI-H carcinomas and their precursors; 2) recognize the various hamartomatous polyps and their clinical significance regarding familial cancer syndromes; 3) point out common errors in colon cancer reporting and key changes in the 7th edition of the AJCC Staging Manual; 4) explain the diagnostic, prognostic, and therapeutic implications of MSI testing/MMR protein immunohistochemistry and BRAF and KRAS mutation analysis.

The course is designed for residents, fellows, and general pathologists, as well as those with an interest in GI pathology. Virtual slides and still images, along with histories, will be posted on the USCAP website for review by pre-registrants prior to the meeting. All participants will also receive a syllabus with a comprehensive reference list at the meeting. After the meeting, participants will receive web access to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

37. Oral and Maxillofacial Pathology for the Practicing Pathologist: Pathology of Odontogenic and Other Common Lesions of the Jaws with Clinical and Radiographic Correlation

Robert A. Robinson, M.D., Ph.D. and Steven D. Vincent, D.D.S., M.S., Carver College of Medicine and College of Dentistry University of Iowa, Iowa City, IA

This course will illustrate the most common oral and maxillofacial pathology lesions of odontogenic, gingival and osseous origin likely to be encountered by the practicing pathologist. For those that have not felt comfortable with odontogenic, oral osseous and oral mucosal lesions, this is the course to take. It is aimed at practicing pathologists but also those in pathology training. This basic course is meant to de-mystify odontogenic lesions, processes that many pathologists see in their practice but sometimes without sufficient regularity to attain confidence in their diagnosis. Information regarding the basic fundamentals of these important oral lesions will be presented in an easy to understand format. The course is designed with the assumption that the participant has a limited knowledge of odontogenic lesions, including their histologic, radiologic and clinical features. The course directors believe that in addition to an understanding of the histologic features of these processes, radiographic and clinical information is sometimes essential in making a specific diagnosis. Similar to orthopedic pathology, an understanding of the radiograph features is essential for the evaluation of some odontogenic lesions. Further, the pathologist’s job is made considerably easier when he or she understands the clinical features and the appropriate treatment that will be rendered following a diagnosis.

The course is quite interactive. Both course directors will actively and simultaneously participate in the presentation of course materials, stopping
The lesions to be presented are divided naturally into categories that define their appearance to the oral surgeon based on clinical and radiographic evaluation. This division will prove to be very useful upon completion of the course as it will allow the participant to quickly assess the appropriate differential diagnoses that correspond to the clinical/radiographic appearance. Moreover, these major categories represent the information that will be presented on the pathology requisition. Major lesions of interest will be available to review prior to the course on virtual slides for pre-registrants through the USCAP website. A syllabus will be provided at the meeting covering text material presented in the course along with a printed version of the text from the PowerPoint presentation that participants can follow along during the presentation. At the conclusion of the course web access will be given to participants to view the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus.

The major categories of processes to be discussed include the following:
1) Odontogenic lesions presenting clinically/radiographically as cysts. Included in this group are: dentigerous cysts, hyperparathyroid dental follicle, radicular cyst, keratocystic odontogenic tumor (odontogenic keratocyst), unicystic ameloblastoma and calcifying odontogenic cyst (Gorlin cyst).
2) Odontogenic lesions presenting clinically/radiographically as a solid tumor. Included in the group are: ameloblastoma, ameloblastic fibroma, ameloblastic fibro-odontoma, odontoma, myxoma, myxofibroma, adenomatoid odontogenic tumor, and calcifying odontogenic tumor (Pindborg tumor).
3) Gingival lesions. Included in this category are: peripheral ossifying fibroma, peripheral giant cell granuloma and pyogenic granuloma.
4) Fibro-osseous lesions of the jaws. Included in this group are: cemento-osseous dysplasias, central giant cell lesions, fibrous dysplasia and ossifying fibroma.

The objectives of the course will be to enable the participant to 1) establish the clinical, radiologic and histopathologic criteria required for accurate and meaningful diagnosis of odontogenic lesions and lesions occurring in the soft and osseous tissues of the jaws, 2) to develop familiarity with the therapeutic options for the lesions presented, thereby improving communication with the oral surgeon and 3) issue pathology reports that are meaningful for the oral surgeon and dentist. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM credits.

52. Of Critical Value: Management and Leadership Skills for the Anatomic Pathologist

Lewis A. Hassell, M.D., and Michael L. Talbert, M.D., University of Oklahoma Health Sciences Center, Oklahoma City, OK

This practical course emphasizes the development of skills and practices of high importance in leading and directing an anatomic pathology laboratory or department. Content is drawn from a broad array of sources within and beyond medical and laboratory management, reflecting the most current “best practices” for laboratory leaders.

Case-based scenarios will be utilized to highlight principles and practices of broad-reaching value to individuals who currently, or may shortly direct all or a portion of operations in an anatomic pathology lab. Pathologists in training and those newly entering practice will particularly find a roadmap for skill development and practice, while those established in practice and now in positions of leadership should also find the content useful in solving current problems in lab management. Interactive problem solving and other group participation processes will be used.

The course will center around three areas, roughly divided into a) development of a basic core set of skills for AP lab directors, b) how to evaluate and monitor operations in your laboratory, c) developing the personal, team and organizational characteristics to perform optimally and ensure long-term success. Written materials will be provided to the participants in the form of a syllabus at the meeting.

At the conclusion of the course, participants should be able to: 1) properly design and conduct appropriate validation studies needful for AP; 2) describe the purposes for and means of meaningfully accomplishing mandated focused and on-going professional practice reviews; 3) evaluate and identify toxic traits in their organizational culture and suggest changes that might improve the health of that culture; and 4) identify leadership traits they might work to develop to provide better outcomes in their practice setting. (NEW COURSE) This course may be used for CME credits or SAM credits.

48. Mediastinal Tumors: A Practical Approach

Cesar A. Moran, M.D., MD Anderson Cancer Center, Houston, TX and Saul Suster, M.D., Medical College of Wisconsin, Milwaukee, WI

Mediastinal Pathology involves a wide spectrum of lesions that range from low to high grade malignant neoplasms. Recently, changes on histological criteria and classification have taken place. In view of such spectrum of lesions, the emphasis will be in some of the most common problematic areas in mediastinal pathology, namely thymic epithelial tumors, germ cell tumors, mesenchymal neoplasms, neuroendocrine tumors, as well as benign lesions that may mimic malignant neoplasms. This carefully selected group of topics represent one of the most common and yet more difficult areas in mediastinal pathology on which one needs to have an up-to-date knowledge of current classification systems, the use and interpretation of immunohistochemistry, and the limitations that one faces in intraoperative consultations (frozen sections). The course will be of benefit to the general surgical pathologist, pathologists with special interest in thoracic (mediastinal) pathology, and pathology residents. This course will provide for more interactivity between the audience and the speakers to further discuss unusual settings upon which sometimes one is call to make some of these diagnoses. Upon completion of this course, participants will be able to: 1) Formulate the distinction among the different types of thymomas in contrast to other thymic tumors; 2) Recognize the importance and limitations among the different classification systems for thymic epithelial neoplasms; 3) Properly develop a differential diagnosis for the many different thymic tumors and; 4) properly evaluate and interpret the different immunohistochemical studies used in the diagnosis of thymic tumors.

Registrants will have access to images on the USCAP website prior to the meeting, a syllabus will be provided at the meeting. After the meeting, registrants will receive web access to the PowerPoint presentation given at the USCAP Annual Meeting. (NEW COURSE) This course may be used for CME credits or SAM credits.
55. Tubulointerstitial and Vascular Diseases of the Kidney

Patrick D. Walker, M.D., and Chris Larsen, M.D., Nephropath, Little Rock, AR, and Samih Nasr, M.D., Mayo Clinic, Rochester, MN

This is a practically oriented course focusing on the tubulointerstitial and vascular diseases of the kidney. The material is designed to benefit pathologists at all levels of experience including pathology residents, general pathologists and nephropathologists. Emphasis will be placed on practical aspects regarding the diagnosis of tubulointerstitial nephropathy/nephritis and vascular diseases of the kidney. The utility of special stains, immunofluorescence microscopy and electron microscopy will be addressed.

The course will be constructed as a series of case presentations providing a framework for understanding the proper approach to these medical renal diseases. The material will encompass the toxic and ischemic types of acute tubular injury, various forms of acute and chronic interstitial nephritis, crystal nephropathy and vascular lesions including vasculitis, cholesterol embolization and thrombotic microangiopathy.

Virtual slides and still images, along with histories, will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus discussing salient clinical features, histological features by light microscopy, immunofluorescence and electron microscopy, differential diagnosis and a comprehensive reference list will be distributed at the meeting. Course registrants will also receive web access to the PowerPoint presentations used at the USCAP Annual Meeting along with the text portion of the syllabus.

After completion of this course, participants will be able to: 1) recognize the characteristic pathologic features of the major causes of tubulointerstitial and vascular diseases of the kidney, 2) describe the utility of various special stains, immunofluorescence microscopy and electron microscopy in the examination of renal biopsies, 3) generate a differential diagnosis for the various tubulointerstitial and vascular lesions. (NEW COURSE) This course may be used for CME credits or SAM credits.

57. Ophthalmic Pathology: A Look Through the Window to the World

Thomas J. Cummings, M.D., Duke University Medical Center, Durham, NC; Patricia Chavez-Barrios, M.D., The Methodist Hospital, Houston, TX and Michele Bloomer, M.D., University of California, San Francisco, San Francisco, CA

A shortage of ophthalmic pathologists exists. This has resulted in a decline in the teaching of this specialty to residents, fellows, attending pathologists and ophthalmologists. Furthermore, opportunities to learn eye pathology at national and international pathology meetings are few. The purpose of this course is to present a spectrum of classical, common, and exotic ophthalmic pathology cases, from the cornea to the optic chiasm, and the course will benefit pathology residents, fellows, and attending pathologists.

The course comprises a brief introduction and overview of ophthalmic pathology, and eight main categories including: 1) Cornea; 2) Conjunctiva; 3) Eyelid; 4) Uvea; 5) Retina; 6) Diabetes, Glaucoma, Macular Degeneration; 7) Orbit; and, 8) Optic Nerve. Each category will feature a classical ophthalmic pathology concept or diagnosis in the usual case presentation format. The cornea section will include the pathology of the everyday cornea specimens including cornea transplants, Fuchs’ endothelial dystrophy, and Descemet membrane specimens. The conjunctiva section will feature melanocytic lesions. The eyelid section will discuss sebaceous carcinoma. The uvea section will highlight uveal malignant melanoma. The retina section will spotlight retinoblastoma; and, glaucoma, diabetic retinopathy and age-related macular degeneration will also be discussed. The orbit section will include pathology of the lacrimal gland, and cases of epithelioid hemangiomia, inflammatory pseudotumor, and metastatic neoplasms. The optic nerve section will discuss gliomas and meningiomas of the optic nerve, and cases of optic nerve choristoma, sarcoidosis, neuromyelitis optica, and progressive external ophthalmoplegia.

Virtual slides of select highlighted cases will be available prior to the meeting. A syllabus including a bibliography of select cases and a handout of the PowerPoint slides will be available at the meeting. Participants will receive web access of the PowerPoint presentation following the course. Upon completion of this course, participants will be able to: 1) recognize the characteristic histological features of some classical, every day, and exotic ophthalmic pathology diagnoses; 2) adequately handle ophthalmic pathology specimens and be familiar with the language of ophthalmology; and, 3) demonstrate insight into the remarkable world of ophthalmic pathology and become interested in keeping this often-neglected specialty relevant. This course may be used for CME credits or SAM credits.

58. Diffuse Lung Disease: Is it Neoplastic or Not? Or Maybe Both?

Marie-Christine Aubry M.D., Mayo Clinic, Rochester, MN, and Henry D. Tazelaar M.D., Mayo Clinic, Scottsdale, AZ

Neoplasms, primary or metastatic, can present clinically as diffuse non-neoplastic lung disease and be difficult to recognize histologically. Additionally, neoplasms may arise in the setting of non-neoplastic disease and the clinical implications of such findings are not well known to clinicians and pathologists. Using a practical case presentation approach, this short course will focus on examples of neoplastic disease presenting as diffuse lung disease, and neoplasms complicating non-neoplastic disease. Recent advances in pathogenesis, ancillary testing, patient management and prognosis as well as potential pitfalls and differential diagnosis will be discussed for each case.

The course is designed for residents and fellows as well as pathologists who encounter surgical lung biopsies in their practice. At the end of the course, the participants will be able to: 1) explain about tumor types which can mimic or complicate non-neoplastic lung disease, 2) recognize the histologic features of tumors which can mimic or complicate non-neoplastic lung disease, 3) discuss the differential diagnosis of these tumors and non-neoplastic lung diseases, and 4) describe their clinical significance and prognosis.

Pre-registrants will be able to view case histories and virtual slide of the study cases, prior to the meeting on the USCAP website. A comprehensive syllabus will be distributed at the course. After the meeting, all course registrants will have access to the PowerPoint presented at the Annual Meeting along with the text portion of the syllabus on the USCAP website. This course may be used for CME credits or SAM credits.
61. Transplant Pathology of Solid Organs: A Practical Diagnostic Approach

René P. Michel, M.D., C.M., and Chantal Bernard, M.D., McGill University and McGill University Health Center, Montreal, QC, Canada

A number of Pathologists find the interpretation of biopsies and other surgical specimens from solid organ transplants challenging. The general aim of this course is to provide a practical structured and logical approach to the diagnostic interpretation of different specimens from patients with heart, liver, pancreas or kidney transplants, including the assessment of donor organs, with emphasis on resolution of pathologic and clinicopathologic differential diagnoses. It will be richly illustrated with numerous cases, including several available for preview on the USCAP website prior to the meeting.

The specific objectives are to discuss the broad array of lesions encountered in patients receiving heart, liver, pancreas and kidney transplants, so that upon completion of the course, participants should be able to 1) ascertain suitability of a liver or kidney donor biopsy for transplantation; 2) diagnose and grade acute cellular and acute and chronic antibody-mediated rejection using the latest Banff and other classification schemes; 3) evaluate biopsies for the presence of various infections, drug toxicities, recurrence of original disease, and for the development of new diseases; 4) resolve differential diagnostic dilemmas and recognize potential pitfalls; 5) interact and communicate effectively with Transplant Physicians and Surgeons thereby providing the best possible care to patients with solid organ transplants.

This course is for a broad audience, including General and Anatomic Pathologists, practicing or in-training, who want to become familiar with this fascinating and expanding domain, as well as for Pathologists with special interest in Transplant Pathology who wish to augment and update their knowledge.

Several representative cases with virtual slide, electronic still images and clinical histories will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus providing a summary of key diagnostic and differential diagnostic features and grading, the PowerPoint presentation, and a comprehensive reference list will be distributed at the meeting. Course registrants will also receive web access to the PowerPoint presented at the USCAP Annual Meeting along with the text portion of the syllabus. After the meeting, all registrants prior to the meeting.

Virtual slides, images and clinical histories will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus will be distributed to registrants at the meeting. After the meeting, all participants will receive web access to the PowerPoint presentation at the USCAP Annual Meeting along with the text portion of the syllabus.

After completing the course the participants should be familiar with the commonly encountered categories of cardiac and vascular surgical specimens, their work up and differential diagnosis. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

11. Practical Informatics – The Basics

John Sinard, M.D., Ph.D, Yale Medical School, New Haven, CT

Computers are as common today in the practice of anatomic pathology as the microscope. Yet, while most pathologists feel quite comfortable using a microscope, many are still uneasy with the terminology and inner workings of computers and their components. If you feel that the computer revolution somehow passed you by, this course will provide a basic introduction to computer hardware and software, as well as key informatics topics of importance to all pathologists. This course will help you “get up to speed” more rapidly than trying to learn this information by yourself.

The course will cover a variety of topics in a module format. Topics to be covered will include a basic introduction to desktop computer hardware (memory, storage devices) and software (data storage, operating systems, applications). Since no desktop computer is an island anymore, we will discuss the basics of networking, Ethernet, and the Internet. Databases sit at the core of every clinical information system, so you will be introduced to the basics of relational databases, including terminology, design, management, and data protection.

No discussion of computers in anatomic pathology would be complete without a section on digital imaging. You will learn what makes up a digital image, how to acquire one, and what makes one format different from another. The discussion will include a number of practical pointers which will be important in helping you to design and set up a digital imaging solution for your practice environment. Finally, the various forms of telemicroscopy (static, dynamic, and virtual microscopy), as well as various uses for each of these technologies, will be compared, contrasted, and critiqued.

This course will be offered every other year. After completion of the course, attendees will feel much more confident conversing about their own computers, and interacting with institutional information technology staff. More importantly, attendees will be able to make intelligent decisions about the use of computers and computer related technologies in their practices. All participants will be provided with a detailed handout at the course. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM credits.
21. Biopsy Pathology of Esophageal and Coloanal Neoplasia

Ana E. Bennett, M.D., Thomas Plesc, M.D., and John Goldblum, M.D., Cleveland Clinic, Cleveland, OH

A thorough understanding of neoplasia in gastrointestinal tract biopsies, including its diagnosis, prognosis and management, is an essential component of quality surgical pathology practice. This course is designed to provide this information for surgical pathologists in training and in practice in either clinical or academic settings.

The course will teach the diagnostic, prognostic and management issues of biopsies of precursors and advanced lesions in GI neoplasia including Barrett’s glandular neoplasia, neoplasia in idiopathic inflammatory bowel disease, anal squamous neoplasia, serrated neoplasia in the colon, colorectal polyps and carcinoma. Emphasis will be placed on morphologic findings, diagnostic criteria, evolving terminology, and differential diagnosis. In addition, the role of molecular diagnostics and its incorporation into routine pathology practice will be emphasized.

Participants will learn to: 1) identify the problematic aspects of GI dysplasia and carcinoma biopsy diagnoses and; 2) distinguish it from reactive/regenerative processes. Clinical cases will be utilized to facilitate understanding of the basic and evolving concepts in diagnosis, prognosis and management. Virtual slides and still images, along with histories, will be posted on the USCAP website for review by pre-registrants prior to the meeting. A syllabus that reviews the diagnostic features, differential diagnoses, and provides a comprehensive reference list will be distributed at the meeting. All course registrants will also receive web access to the PowerPoint presented at the USCAP Annual Meeting along with the text portion of the syllabus. This course may be used for CME credits or SAM credits.

23. Frequently Encountered Diagnostic Dilemmas in Genitourinary Pathology – A Practical Immunohistochemical Approach

Jim Zhai, M.D., University of Cincinnati, Greater Cincinnati Pathologists, Inc., Cincinnati, OH, and Ximing J. Yang, M.D., Ph.D., Northwestern University Feinberg School of Medicine, Chicago, IL

Exponential progress in the identification of new diagnostic molecular markers has been made in recent years. Appropriately applying these new markers in surgical pathology can be challenging. This course will provide a review and update of practical diagnostic immunohistochemistry in genitourinary pathology with a focus on solving commonly faced problems. It is designed for general practicing pathologists, pathologists-in-training, and pathologists with a special interest in genitourinary diseases.

A case-based and scenario-orientated slide seminar will outline an integrated systematic clinicopathological and immunohistochemical approach to accurately diagnosing frequently encountered difficult cases in daily practice. Ten cases, including prostate, bladder, kidney, and testis, will be analyzed for key histological features, commonly encountered mimicking lesions, major differential diagnoses, possible pitfalls, and subsequent clinical significance. Specific dilemmas will be identified and discussed including a small focus of prostatic adenocarcinoma and its mimicking lesions; the classification of the histological variants of infiltrating urothelial carcinoma; the separation of nephrogenic adenoma from urothelial and prostatic adenocarcinoma; and the differentiation of muscularis mucosa from muscularis propria involved by urothelial carcinoma. Additionally, special attention will be placed upon the differential diagnoses among renal tumors; the identification of metastatic clear cell renal cell carcinoma; and the classification and component estimation of a mixed testicular germ cell tumor.

Emerging biomarkers, such as AMACR, PIN4, ERG, CA9, PAX2, PAX8, smoothelin, OCT3/4, SALL4, glypican 3, and others, will be discussed to demonstrate their applications in differential diagnoses and clinical and therapeutic implications. An appropriate panel of antibodies, working algorithms, immunostain interpretations, and potential pitfalls will be emphasized.

Virtual slides, still images, and case histories will be posted on the USCAP website for review prior to the meeting. An interactive style will be used; input as well as questions from the audience will be encouraged and appreciated. All participants will receive online access to all the histological images used during the live lecture (original complete presentation) and a syllabus reviewing diagnostic features with a comprehensive reference list.

Upon completion of the course, you will be able to: 1) explain frequently encountered diagnostic dilemmas in the genitourinary system; 2) select an appropriate panel of immunohistochemical markers; 3) gain expertise in interpreting immunostains; and 4) avoid or minimize pitfalls. Cautious and well-informed utilization of diagnostic immunohistochemistry will be of significant value to your daily practice. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

36. Germ Cell Tumors, Sex Cord-Stromal Tumors and Other Non-Epithelial Tumors of the Ovary

Joseph T. Rabban, M.D., and Charles Zaloudek, M.D., University of California San Francisco, San Francisco, CA and Glenn McCluggage, FRCPath, Royal Group of Hospitals Trust, Belfast, Northern Ireland

This course provides a practically-oriented, case-based review of non-epithelial ovarian tumors, including germ cell tumors, sex cord-stromal tumors, and other non-epithelial tumors of the ovary. These tumors comprise a morphologically diverse array of benign and malignant entities which can be difficult to diagnose because of their relative infrequency and their overlapping morphologic features with some epithelial and non-epithelial tumors. Their predilection for children, young women, and pregnant women, as well as their association with systemic syndromes, further complicates their diagnosis.

The target audience of this course is practicing pathologists as well as pathology trainees. The course will emphasize practical differential diagnosis, pitfalls in frozen section evaluation, an update in novel immunohistochemical diagnostic markers, and an update in prognostic variables.

Upon completion of the course, participants should be able to: 1) recognize major sub-types of ovarian germ cell tumors, sex cord-stromal tumors and their mimics 2) identify pitfalls in frozen section evaluation; 3) appropriately apply and interpret current immunohistochemical markers to confirm diagnosis of these tumors and 4) state what prognostic information should be reported in the diagnosis of these tumors.

Virtual slides of the cases and relevant immunostains will be available to review on the USCAP website prior to the course. A text syllabus and copy of PowerPoint presentations will be provided at the meeting. After the meeting, all course registrants will have access to the PowerPoint presented...
at the Annual Meeting along with the text portion of the syllabus on the USCAP website. A Self-Assessment Module (SAM) consisting of multiple choice questions will also be available after the meeting on the USCAP website for participants who wish to obtain SAM credit. This course may be used for CME credits or SAM credits.

38. Molecular Testing in Cancer: Moving into a New Era of Practice

George M. Yousef, M.D., Ph.D., FRCP, and Serge Jothy, M.D., Ph.D., FRCP, St. Michael’s Hospital, and the University of Toronto, Toronto, Canada

This course is intended to provide an update regarding the rapidly evolving field of molecular testing in cancer. It is already apparent that advances in this field have started to make a significant mark in the diagnosis and management of cancer patients, as well as lead into a new era of cancer care which goes far beyond anatomical diagnosis. The targeted audiences of this course are practicing anatomical pathologists, pathology residents, and fellows. An extensive syllabus will be distributed at the course. After the meeting all participants will receive web access to PowerPoint material along with the text portion of the syllabus.

We will provide an overview of the scope of applications of molecular testing in cancer, from diagnostic, prognostic, to predictive applications with commonly used examples in clinical practice as well as a quick overview of the principles of the most commonly used techniques. Using illustrative cases, we will discuss the role of molecular testing in colorectal cancer and its impact on patient management. Also, we will provide an update on testing epidermal growth factor receptor and KRAS gene expression in different tumors. A brief overview of the emerging role of "microRNA" testing in cancer care will be presented. Finally, we will introduce the concept of "personalized medicine" and provide an overview of the scope of clinical application of personalized medicine in cancer management. We will conclude by addressing some practical challenges which face the incorporation of molecular testing into our pathology practice.

Upon completion of the course, it is anticipated that participants will be able to: 1) Describe the increasingly important role and limitations of molecular pathology in current practice and its effect on cancer patient diagnosis and management; 2) Explain the basic principles of the molecular methods used in clinical practice; 3) Point out how molecular testing can be incorporated into our pathology practice; and 4) Define the concept of "personalized medicine" and its scope of applications in cancer management. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM's credits.

44. Practical Placental Pathology: A Systematic Approach

Rebecca N. Baergen, M.D., New York-Presbyterian Hospital, Weill-Cornell Medical College, New York, NY and Cynthia G. Kaplan, M.D., State University of New York at Stony Brook, Stony Brook, NY

Placentas are common specimens, which often have significant implications for clinical care. However, many residents and practicing pathologists have little exposure and experience with placental examination. This is a practically oriented course focusing on the differential diagnosis of placental lesions in common clinical situations with improved recognition of gross and microscopic pathology. The course is designed for general pathologists and residents, but pathologists with expertise in this area may also benefit.

The course will use a case-study approach organized into sections based on clinical presentations or outcome. The topics to be covered include 1) maternal disorders such as preeclampsia, thrombophilies, diabetes mellitus, etc.; 2) prematurity, 3) the term infant with low Apgar scores, 4) intrauterine growth restriction, 5) intrauterine fetal demise and 6) miscellaneous lesions. A case study will be presented in each main category with the addition of some “mini” case studies to illustrate appropriate pathology.

Pre-registrants will be able to view case histories and electronic images of the study cases prior to the meeting on the USCAP website. A syllabus reviewing differential diagnosis and pathologic features of each entity with appropriate references will be distributed at the meeting. All course registrants will also receive web access to the PowerPoint presented at the USCAP Annual Meeting along with the text portion of the syllabus.

Upon completion of the course, participants should be able to: 1) Diagnose gross placental findings and select appropriate areas for histologic sectioning. 2) Recognize the normal sequence of placental maturation and its alterations in maternal and fetal disorders. 3) Explain the clinical implications of infections and inflammatory processes in the placenta. 4) Prepare complete placental reports helpful to clinicians in differential diagnosis. This course may be used for CME credits or SAM credits.

49. Diagnostic Hematopathology - A Roadmap for the Surgical Pathologist

James R. Cook M.D., Ph.D, Cleveland Clinic, Cleveland, OH; Marsha C. Kinney, M.D., University of Texas Health Science Center, San Antonio, TX; and Steven H. Swerdlow,M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA

The diagnosis of nodal and extranodal lymphoid proliferations has become progressively more complex, and the number of widely available ancillary tests has continued to grow. The general surgical pathologist faces the challenge of selecting the best tests to arrive at a precise diagnosis in a cost-effective manner, and then knowing how to interpret sometimes misleading or conflicting results. This course is designed to provide guidance in the routine workup of lymphoproliferative disorders for general surgical pathologists, residents and hematopathology fellows in training. Common situations rather than exotic entities that often require a consultant will be emphasized, and audience participation will be encouraged using an audience response system.

The course will begin with an introduction to handling lymph node and related tissue biopsies that will review the major ancillary techniques used in diagnostic hematopathology including their strengths and weaknesses. An algorithmic approach to the evaluation of nodal and extranodal lymphoid proliferations (excluding bone marrow) will be provided. The remainder of the course will consist of case-based presentations, chosen to be representative of the situations most likely to be encountered in a general surgical pathologist practice. Presentations will emphasize problem solving, starting with the clinical situation and routine histopathology and ending up with a confident diagnosis, with attention paid to common pitfalls that might arise along the way.

Virtual slides of the major cases to be discussed and brief histories will be provided on the USCAP website for review by pre-registrants prior to the meeting. A written syllabus and printed copy of the PowerPoint presentations will be distributed at the course. After the course, all
participants will receive web access to PowerPoint material along with the text portion of the syllabus.

Upon completion of the course, participants will be able to: 1) develop a protocol for handling hematopathology specimens in a general surgical pathology practice, 2) employ a multiparameter approach for evaluating lymphoid proliferations integrating histopathology with readily available ancillary tests and know when to obtain external consultation, 3) be aware of the more recent changes in diagnostic hematopathology as they relate to the diagnosis of the more common types of lymphomas, and 4) recognize potential pitfalls in the interpretation of lymphoid proliferations. This course may be used for CME credits or SAM credits.

50. Practical Approach to the Diagnosis of Pediatric Solid Tumors.

David Parham M.D., University of Oklahoma, Oklahoma City, OK, and Joseph Khoury M.D., Quest Diagnostics and Nevada Cancer Institute, Las Vegas, NV

Pediatric solid tumors comprise a distinct group of neoplasms that differ significantly from those encountered in the adult population. This course will serve as a pattern-based overview of the most common pediatric solid tumors encountered in general practice.

A case-based approach will be utilized to provide pathologists and pathologists-in-training with practical diagnostic tools, emphasizing integration of histopathology, immunohistochemistry, and molecular diagnostics. The course will also discuss handling of tissue samples from pediatric solid tumors and challenges encountered during frozen section examination.

Virtual slides will be posted on the USCAP website for review by pre-registrants prior to the meeting. All participants will receive a detailed syllabus at the course and after the meeting all participants will receive web access to PowerPoint material along with the text portion of the syllabus.

Upon completion of this course, participants will be able to: 1) recognize the histologic features of the major types of pediatric solid tumors; 2) apply immunohistochemistry in the diagnosis of these tumors; 3) explain the role and limitations of molecular diagnostic techniques in the field of pediatric solid tumors. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM credits.

54. A Practical Approach to Non-Neoplastic Surgical Neuropathology

Bette K. Kleinschmidt-DeMasters, M.D., University of Colorado at Denver and Health Sciences Center, Aurora, CO and Richard A. Prayson, M.D., Cleveland Clinic Foundation, Cleveland, OH

A significant percentage of cases in surgical neuropathology represent non-neoplastic lesions; these can be particularly challenging for the pathologist, both at the time of intraoperative consultation and on permanent section. The differential diagnosis is often broad and confident diagnosis in some cases requires correlation with clinical and serological data. This course will provide a practical approach for the pathologist in how to handle a variety of non-tumoral lesions of the central nervous system. The course will begin by presenting an approach to what can be confidently discerned at the time of frozen section, where the evaluation of most of these lesions begins. Using a series of cases by way of illustration, histologic findings or “flags” suggestive of a potential non-neoplastic diagnosis will be discussed and an algorithmic process will be presented on how to evaluate these lesions.

The topics to be covered include: 1) radiation and chemotherapy induced changes (gliosis versus glioma); 2) processes resulting in thickened blood vessel walls (amyloid, CADASIL); 3) chronic inflammatory processes (vasculitis, infection, lymphoma, demyelinating disease versus infarct; 4) vascular malformations (arteriovenous malformation, cavernous angioma); and 5) abscess and granulomatous inflammation.

The course will be constructed as a series of case presentations that will provide the framework for discussion. The case presentations will illustrate intraoperative consultation findings, histopathological features, differential diagnoses and utility of adjunct diagnostic modalities. Still images of each case along with histories will be posted on the USCAP web-site for review by registrants prior to the meeting. A syllabus reviewing the key points and a reference list will be provided at the meeting. All course registrants will receive Web access to the PowerPoint presentation presented at the meeting along with the text portion of the syllabus.

Upon completion of the course, participants should be able to: 1) recognize common pathologic features associated with certain non-neoplastic conditions; 2) differentiate between differential diagnostic considerations associated with certain patterns of injury suggestive of a possible non-neoplastic lesion; and 3) recognize scenarios which might require ancillary testing to confirm a diagnosis and know how to appropriately handle tissues at the time of intraoperative consultation. The limitations to what can be confidently diagnosed at the time of frozen or even permanent sections, based on histology alone, will be an important platform for discussion. This course may be used for CME credits or SAM credits.

63. New Concepts in the Diagnoses and Classification of Extranodal Lymphomas

Yaso Natkunam M.D., Ph.D., Stanford University School of Medicine, Stanford, California, Eric D. Hsi M.D., Cleveland Clinic Foundation, Cleveland, Ohio, Daniel A. Arber M.D., Stanford University School of Medicine, Stanford, California

Up to 40% of lymphomas occur at sites other than the lymph node. Their recognition, diagnosis and classification are challenging because of their unusual clinical presentations and the lack of architectural landmarks typical of their nodal counterparts. In addition, there is overlap with non-hematopoietic tumors at various anatomic locations. The course content is designed to provide a comprehensive diagnostic approach to extranodal lymphomas for general surgical pathologists, hematopathologists and pathology trainees including hematopathology fellows.

The course will consist of case presentations that highlight differential diagnostic considerations and the selection of pertinent ancillary testing (immunohistochemistry, flow cytometry and molecular genetic methods including karyotyping, PCR and FISH) based on the new WHO and EORTC classifications. Extranodal lymphomas from the following anatomic sites will be discussed: gastrointestinal tract, skin, soft tissue, mediastinum, central nervous system and oral cavity.

Images of extranodal lymphomas together with clinical histories will be provided on the USCAP website prior to the meeting. All registrants will be given web access to a detailed course syllabus with bibliography and final Power Point presentations.
Upon completion of this course, participants should be able to: 1) recognize the salient features of extranodal lymphomas occurring at various anatomic locations, 2) describe an integrated approach to the diagnosis of extranodal lymphomas that incorporates morphologic approaches with appropriate ancillary studies, 3) explain the changes in the revised WHO classification of lymphoid neoplasms and the impact of immunohistologic and molecular markers on diagnosis and classification. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

46. Orthopaedic Pathology – Select Problems in the Diagnosis of Neoplastic and Non-Neoplastic Diseases
Andrew E. Rosenberg, M.D., Massachusetts General Hospital, Boston, MA and Alan L. Schiller, M.D., The Mount Sinai Hospital, New York City, NY

Orthopaedic pathology is still a challenging area for many surgical pathologists. Medical school education provides only superficial information about the physiology of the musculoskeletal system and the pathobiology of the many diseases that affect it. Most pathology residency programs do not have the diagnostic expertise or adequate volume of orthopaedic specimens to appropriately train aspiring pathologists. Accordingly, the practicing surgical pathologist is often ill-prepared and lacks the skills and insight to interpret accurately tissue specimens from the musculoskeletal system.

Therefore, the purpose of this course is to improve the pathologist’s skills in interpreting the morphologic manifestations of a variety of important orthopaedic diseases. This course will: 1) Discuss the differential diagnosis of osteoarthritis and non-infectious inflammatory arthropathies. 2) Explain the morphologic changes associated with prostheses and associated complications. 3) Review the major types of crystal deposition diseases. 4) Clarify issues associated with joint tumors and their mimics. 5) Address important problems in the differential diagnosis of cartilage and bone forming tumors. 6) Present specific issues of malignant small round cell tumors of bone.

The course will combine case presentations with formal didactic discussion for each topic. At the conclusion of this course attendees will be able to: 1) Define and recognize different kinds of arthritis; 2) Interpret the pathology of prosthetic joints and the manifestations of secondary infection; 3) Diagnose common synovial tumors and their mimics; 4) Distinguish benign cartilage tumors from chondrosarcoma; accurately recognize stress fracture and benign bone forming tumors separate them from osteosarcoma; and 5) Generate an appropriate differential diagnosis for malignant small round cell tumors and perform and interpret appropriate ancillary studies to generate a precise diagnosis.

We anticipate that this course will benefit pathology residents, general pathologist, pathologists with special expertise in the subject, orthopaedists, and radiologists and their residents as well.

Pre-registrants will be able to view case histories and virtual slide of the study cases, prior to the meeting on the USCAP website. A comprehensive syllabus will be distributed at the course. After the meeting, all course registrants will have access to the PowerPoint presented at the Annual Meeting along with the text portion of the syllabus on the USCAP website. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

FRIDAY PM SHORT COURSES
1:00 P.M – 4:30 P.M.

06. Practical Solutions to Common Problems in Lymphoma Diagnosis
Dennis P. O’Malley, M.D., Clarient, Inc., Aliso Viejo, CA and L. Jeffrey Medeiros, M.D., UT-MD Anderson Cancer Center, Houston, TX

There is a need for the general pathologist to be exposed to the constantly changing diagnostic methods in hematopathology. Especially frustrating is the perceptions that hematopathology is becoming so specialized as to preclude the general pathologist from practicing hematopathology. The aim of this course is to develop an approach to diagnosing lymphomas using modern information and diagnostic methods. Upon completion of the course, the attendee should more comfortable with the common problems and gain strategies and diagnostic approaches that will allow for confident diagnosis in a complex field.

The course is suited for General Pathologists and Residents are encouraged to attend. This course will cover basic diagnostic approach and techniques for lymphomas, using common diagnostic questions/problems as a foundation for covering material on several topics. The main efforts of this course are to: 1) Review basic practices for the diagnosis of common lymphomas; 2) Help to establish a consistent approach to the diagnosis of lymphomas using the 2008 WHO criteria; 3) Review ancillary methodologies and when to use them for diagnosis and prognosis in lymphomas.

The course will be based around several commonly occurring questions that come up in routine practice regarding the diagnosis of lymphomas and lymphoproliferative disorders. Topics that will be covered are: 1) Is it follicular hyperplasia or follicular lymphoma? 2) Do I have to do special studies to subtype Hodgkin lymphoma? 3) I’ve diagnosed “small B cell lymphoma” – now, what kind is it? 4) Is this gastrointestinal lymphoid infiltrate benign or malignant? 5) OK – I’ve diagnosed “large cell lymphoma”; do I have to do anything else? 6) What sort of ancillary studies should I do? Flow cytometry? Immuno stains? Molecular testing? FISH?

Specific entities that will be covered include: 1) Hodgkin lymphoma; 2) Nodular lymphocyte predominant Hodgkin lymphoma; 3) Chronic lymphocytic leukemia/small lymphocytic lymphoma; 4) Mantle cell lymphoma; 5) Follicular lymphoma; 6) Marginal zone lymphoma; 7) Diffuse large B cell lymphoma (Except as part of inclusion in differential diagnoses, benign disorders and T-cell lymphomas will not be covered).

Cases will be used as starting points for discussions. Cases will be presented as “virtual slides”, with digitally scanned materials that will be made available to pre-participants prior to the course. A syllabus will be distributed at the course. After the meeting, registrants will receive web access to the PowerPoint presentation given at the Annual Meeting along with the text portion of the syllabus.

In addition, a pretest will be available. There will also be a post-test, with questions to qualify this course for documentation of content mastery. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.
08. Glandular Cytopathology in Liquid-Based Pap Tests: An Interactive Review of Diagnostic Dilemmas and Potential Pitfalls

Rana S. Hoda, M.D., FIAC and Syed A. Hoda, M.D., Weill Cornell Medical College, New York, NY

This short course will enable confident diagnosis of various reactive, benign and neoplastic glandular lesions on Pap Tests. The course discussion will involve around 10 wide-ranging cases. Emphasis will be placed on morphological appearances of glandular structures, normal and abnormal, on liquid-based preparations. Comparative analysis of various lesions on conventional smears will be reviewed. Common artifacts, diagnostic dilemmas, and potential pitfalls will be highlighted. Role of HPV-testing in endocervical lesions will be outlined. Current diagnostic and management guidelines will be reviewed. Importance of histological and clinical correlation will be emphasized. Related quality assurance issues will be addressed. Pre-registrants will be able to view virtual slides and still images from the 10 illustrative cases, and attempt related multiple-choice questions (in advance at www.uscap.org). A syllabus will be distributed to registrants at the meeting. An interactive approach with the audience, with question-answer sessions and discussion periods, will ensure audience participation. Post-meeting, all participants will receive web access to the PowerPoint presentation with the text portion of the slides and still images from the 10 illustrative cases, and attempt related multiple-choice questions (in advance at www.uscap.org). A syllabus will be distributed to registrants at the meeting. An interactive approach with the audience, with question-answer sessions and discussion periods, will ensure audience participation. Post-meeting, all participants will receive web access to the PowerPoint presentation with the text portion of the syllabus. Practicing pathologists fellows and residents will benefit from this course.

Upon completion of the course, participants should be able to: 1) diagnose various glandular lesions on liquid-based Pap Tests; 2) recognize differences in appearance of these lesions on conventional and liquid-based preparations; 3) utilize ancillary tools, including immunocytochemistry and HPV-testing; 4) realize limitations of cytological diagnoses; and 5) understand current management guidelines. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

18. Endocrine Pathology; an Integrated Approach

Virginia A. LiVolsi, M.D., and Zubair W. Baloch, M.D., Ph.D., Hospital of University of Pennsylvania, Philadelphia, PA and Sylvia L. Asa, M.D., Ph.D., University Health Network Toronto, TO

The pathologic evaluation of the lesions of endocrine organs can be a difficult task due to lack of well-defined morphologic criteria and subtle functional alterations leading to subtle or marked cellular atypia. This course will offer practical hints that can aid in the diagnosis of fine-needle aspiration specimens, intraoperative consultations, as well as histology, with conventional histopathology and immunohistochemical and molecular diagnostic tools.

Using a case study approach, this course will illustrate and discuss the following seven diagnostic problem areas: (1) the value and limitations of fine needle aspiration cytology of endocrine tissues with focus on thyroid FNA; (2) the use and abuse of intraoperative consultations, with frozen sections and cytologic touch preparations; (3) the criteria for and the clinical significance of distinguishing endocrine hyperplasia from neoplasia and their clinical consequences; (4) definitions of capsules and capsular invasion as a criterion of malignancy in endocrine tumors; (5) the significance of cellular or architectural atypia, mitoses and necrosis in endocrine tumors; (6) the definition and significance of oncocytic change in endocrine cells, tissues and tumors; and (7) the role of histochemical, immunohistochemical and molecular markers in defining cell differentiation, function and clinical behavior in endocrine lesions.

Upon completion of the course, participants should be able to: 1) Generate a cytologic and histologic differential diagnosis of commonly encountered endocrine lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; 2) Identify and classify challenging benign and malignant lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; 3) Recognize the pitfalls in the cytologic and histologic diagnosis of lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; and 4) Discuss the value of special techniques in the diagnosis of lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system.

The course is designed for advanced residents and general pathologists, as well as subspecialists in cytopathology and endocrine pathology. Pre-registrants will be able to view case histories and electronic images of the study cases, including cytology and corresponding histology, prior to the meeting on the USCAP website. A comprehensive syllabus will be distributed at the course. After the meeting, all course registrants will have access to the PowerPoint presentation at the Annual Meeting along with the text portion of the syllabus on the USCAP website. (LAST SCHEDULED PRESENTATION) This course may be used for CME credits or SAM’s credits.

29. Practical Issues in the Diagnosis, Staging, and Reporting of Prostatic Adenocarcinoma

Jesse K. McKenney, M.D., Stanford University, Stanford, CA, and Lawrence D. True, M.D., University of Washington, Seattle, WA

This course will provide an update on several specific issues of practical importance in the routine practice of diagnostic prostate pathology. Our discussions will be introduced by case presentations that highlight these important issues. First, we will address the diagnosis of prostatic adenocarcinoma on biopsy. This will include benign morphologic mimics of cancer, subtle patterns of adenocarcinoma, the use of adjunctive immunohistochemistry, and a discussion of diagnosing minimal carcinoma. Second, we will provide an update on Gleason scoring that is based on the ISUP 2005 consensus modifications. We will specifically address the difficulties that arise in the daily application of the Gleason system and provide our approach to handling difficult cases. Third, we will discuss reporting guidelines for biopsies and radical prostatectomies with emphasis on reporting volume and Gleason score. Finally, we will review the staging of prostate cancer in radical prostatectomy specimens based on the ISUP 2010 consensus statement. The clinical significance of each diagnostic distinction will be emphasized throughout.

This course is designed for general surgical pathologists and pathologists in training who are seeking an approach to the practical issues that arise in the daily diagnostic practice of prostate specimen interpretation. We will provide a detailed written syllabus as well as images of the full spectrum of pathologic changes presented.

Upon completion of the course, participants should be able to: 1) Confidently approach the differential diagnosis of atypical glandular lesions in prostate needle core biopsies; 2) Establish an approach to using adjunctive immunohistochemistry for the diagnosis of prostatic adenocarcinoma; 3) Recognize the full spectrum of Gleason scoring that is based on the ISUP 2005 consensus modifications. The clinical significance of each diagnostic distinction will be emphasized throughout.

This course is designed for general surgical pathologists and pathologists in training who are seeking an approach to the practical issues that arise in the daily diagnostic practice of prostate specimen interpretation. We will provide a detailed written syllabus as well as images of the full spectrum of pathologic changes presented.

Upon completion of the course, participants should be able to: 1) Generate a cytologic and histologic differential diagnosis of commonly encountered endocrine lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; 2) Identify and classify challenging benign and malignant lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; 3) Recognize the pitfalls in the cytologic and histologic diagnosis of lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system; and 4) Discuss the value of special techniques in the diagnosis of lesions of thyroid, parathyroid, pituitary gland and diffuse endocrine system.

This course may be used for CME credits or SAM’s credits.
40. Pathology of Challenging Melanocytic Neoplasms
Victor G. Prieto, M.D., Ph.D, UT–MD Anderson Cancer Center, Houston, TX; Christopher R. Shea, M.D., University of Chicago Medical Center, Chicago, IL, and Jon A. Reed, M.D., CellNetix Pathology and Laboratories, Seattle, WA

Melanocytic tumors are of capital important for all pathologists, being fraught with pitfalls and high litigation risk. In this practically oriented course, addressed both to practicing surgical pathologists and to residents, participants will study a broad range of benign and malignant melanocytic lesions and acquire a solid working knowledge for diagnosis.

Presentation of 12 cases will illustrate characteristic features, frame the differential diagnosis, and provide a comprehensive overview of melanocytic pathology. Topics will include: staging of melanoma, grading of atypical (dysplastic) nevi, regression and recurrence of nevi and melanomas, distinction of primary from metastatic melanoma, characteristic features of melanocytic nevi of special anatomic sites (acral, breast, genital, etc.), use of sentinel lymph node biopsy, and unusual morphologic variants of melanoma and nevi (chondroid, desmoplastic, angiotropic, spindle-cell, etc.). The course will emphasize clinical management, recent advances in the understanding of pathogenesis, and the use of immunohistochemistry.

Pre-registrants will receive web access to the case histories and images displaying the diagnostic histopathologic features. A comprehensive syllabus with bibliography will be distributed at the course. Time for questions and answers will be provided, and interaction with participants strongly encouraged. After the meeting, all participants will receive a web access to the PowerPoint presented at the meeting along with the text portion of the syllabus.

Topics to be addressed include: 1) The many morphologic and immunohistochemical profiles of Ewing sarcoma. a) Pitfalls in immunohistochemical analysis b) Use of RT-PCR and FISH for translocation analysis. 2) Vascular lesions: malignant or just ugly? a) Histologic features of malignant vascular tumors b) Angiosarcoma mimics 3) Benign and low grade malignant spindle cell lesions: a logical approach a) Low grade fibroblastic sarcomas vs fibromatosis b) Fasciitis vs fibromatosis c) Mesenteric fibromatosis vs GIST 4) Pseudosarcomas and pseudo-pseudosarcomas (i.e. sarcomas) a) Reactive vs neoplastic b) Immunohistochemical adjuncts 5) Pleomorphic undifferentiated sarcomas: the new MFH? a) What is pleomorphic and what does it mean? b) Pleomorphic sarcomas and sarcoma mimics 6) Rhabdomyosarcoma: alveolar vs embryonal and does it matter? a) Muscle-specific markers in diagnosis and classification b) The role of translocation analysis in diagnosis and classification.

This course may be used for CME credits or SAM credits.

56. Morphologic, Immunohistochemical and Molecular Analysis in the Diagnosis of Soft Tissue Tumors: An Integrated Approach
Andrea T. Deyrup, M.D., Ph.D., Pathology Associates of Greenville, Greenville, SC, and Elizabeth A. Montgomery, M.D., Johns Hopkins University, Baltimore, MD

Accurate diagnosis of soft tissue tumors can be difficult and although some entities are readily diagnosed on routine histology, it is often prudent to perform additional studies in others. Selecting the appropriate test and correctly interpreting the results may be challenging to general pathologists, residents and fellows. We will use a case based approach encompassing lesions that are frequently seen in consultation. Examples of both “H&E alone” cases and lesions requiring molecular diagnostics will be offered, encompassing tips for avoiding common diagnostic errors and suggestions for dealing with needle biopsies. Discussion will include the use and utility of various tests as well as common pitfalls in interpretation, but will not address methodology or mechanisms of molecular analysis. This course is intended for residents and practicing pathologists. Multiple representative images of each case will be provided prior to the meeting on the USCAP website for review by pre-registrants. A syllabus will be available at the meeting and all participants will receive a web access to the PowerPoint presented at the meeting along with the text portion of the syllabus after the meeting.

Topics to be addressed include: 1.) The many morphologic and immunohistochemical profiles of Ewing sarcoma. a) Pitfalls in immunohistochemical analysis b) Use of RT-PCR and FISH for translocation analysis. 2.) Vascular lesions: malignant or just ugly? a) Histologic features of malignant vascular tumors b) Angiosarcoma mimics 3.) Benign and low grade malignant spindle cell lesions: a logical approach a) Low grade fibroblastic sarcomas vs fibromatosis b) Fasciitis vs fibromatosis c) Mesenteric fibromatosis vs GIST 4.) Pseudosarcomas and pseudo-pseudosarcomas (i.e. sarcomas) a) Reactive vs neoplastic b) Immunohistochemical adjuncts 5.) Pleomorphic undifferentiated sarcomas: the new MFH? a) What is pleomorphic and what does it mean? b) Pleomorphic sarcomas and sarcoma mimics 6.) Rhabdomyosarcoma: alveolar vs embryonal and does it matter? a) Muscle-specific markers in diagnosis and classification b) The role of translocation analysis in diagnosis and classification.

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