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Monday, March 19, 2012 | 5:30 - 7:30pm | Vancouver Convention Center | Room 306

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Kenneth Bloom, MD, Medical Director, Clarient Inc., USA

**Performance - Results of Comparative Studies**
Josef Rüschoff, Professor, CMO, targas molecular pathology gmbh, Kassel, Germany

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Andreas Schønau, MSc, Director, R&D, Molecular Pathology, Dako A/S, Denmark

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3643 Walton Way Extension, Building 6 | Augusta, GA 30909 USA | 706.733.7550 | uscap.org
Diagnostic Pathology Course
July 15 – 20, 2012
Harborside Hotel & Marina
Bar Harbor, Maine

Designed to provide updated knowledge for practicing surgical pathologists, academicians, and residents, addresses the resolution of diagnostic problems relative to each of the 14 major organ systems. The course fee includes a comprehensive syllabus and a CD containing illustrative images for each topic presented, totaling over 3,500 images.

NEW FACULTY - NEW CONTENT to include these specialty areas:
• Bone and soft tissue
• Breast
• Dermatopathology
• Gastrointestinal
• Gynecologic
• Genitourinary
• Head, Neck and Endocrine
• Hematopathology
• Liver and Pancreas
• Pulmonary and Cardiovascular

Practical Pathology Seminar
May 17 - 20, 2012
Marriott Long Wharf Hotel
Boston, Massachusetts

Designed to provide updated, pragmatic, problem-solving information for practicing anatomic pathologists, this course focuses on the resolution of diagnostic pitfalls in an array of five difficult areas of surgical pathology.

TOPICS
• Bone & Soft Tissue Pathology
• Dermatopathology
• Gastrointestinal Pathology
• Genitourinary Pathology
• Hematopathology

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

Look for details regarding topics to be covered by each speaker and registration information at www.uscap.org.
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Floor Plans for Convention Centre Meeting Rooms and Exhibit Halls are located in the back of this book.
Welcome friends and colleagues to stunning Vancouver and our historic 101st Annual Meeting of the United States and Canadian Academy of Pathology! It’s hard to believe that a year’s time has passed since our centennial meeting in San Antonio, and that my reign as your President is coming to a close. What a true honor it has been, particularly as we bridge into a new era of personalized genomic medicine, with such remarkable possibilities in how we will conduct the future practice of pathology and the transfer of advances in knowledge of our field.

Our Annual Meeting is replete with opportunities to develop our clinical skills and knowledge base as pathologists. Our unique Academy has provided us with educational forums and learning opportunities for now more than 100 years. With the unflagging dedication of our leadership team, we will see innovations beyond what our founders could have possibly envisioned. We look forward to unveiling some of these during our time with you here in Vancouver.

In reflecting over this last year, I must enthusiastically highlight the induction of our new Executive Vice President, Dr. Bruce Smoller, who began his new post in August of 2011. He is an impressive leader whose accomplishments as a pathologist, coupled with his leadership abilities, will benefit USCAP well into our future. We feel very fortunate to have recruited him into this role.

In addition to the diligent work being performed by our long standing committees with which you may be familiar, we have had some exciting new developments over this past year that I would like to highlight here.

Our Education Committee, chaired by Dr. John Goldblum, has and is continuing to diversify the USCAP virtual Menu of educational offerings to include the USCAP eAcademy, which houses our eLibrary and APECS with hundreds of hours of professional education. This is “education on demand” in the most literal sense. As ACCME requirements continue to change, this Committee will also continue to work to host offerings in compliance with all national and state licensing agencies, which is no simple task.

Our Membership Committee, chaired by Dr. Linda Ferrell, has worked to revitalize the Ambassadors Council to create informed, energized and efficacious advocates for USCAP membership outreach. The Committee has implemented new presentation tools and initiated a new Ambassador Training Session, all to more effectively educate prospective members about the benefits that USCAP membership offers. Most critical to the health of our Academy is attracting the next generation of pathologists. The Membership Committee has accordingly created a Resident’s Advisory Committee subcommittee, chaired by Dr. Laura Collins, to increase direct communication and awareness among our residents in training, while enriching the offerings at this Annual Meeting through the creation of many new programs designed specifically for residents.

Our Foundation Committee / Board, chaired by Dr. Jonathon Epstein, has created new Task Forces to work toward providing a comprehensive development structure to ensure the Academy’s future financial security. This next year will see continued building upon this structure, with implementation of an annual program that will provide additional needed funds to support the Academy in areas that might otherwise not receive funding.

Lastly (but certainly not least!) is our dynamic Innovative Educational Products Committee, chaired by Dr. Jeffrey Myers, the members of which deserve high commendation for their tireless work over the last year to bring the first major project of their labor to fruition, with the unveiling to occur at this historic 101st Annual Meeting. This is exciting indeed!

The above notes comprise a mere snapshot of a very grand production engineered by your United States and Canadian Academy of Pathology. We are all working together very hard to serve, first and foremost, you, our members, and thus our profession, to the ultimate benefit of our patients, towards whom all of our efforts are directed. I encourage you to become engaged and to invite others to join our USCAP family.
Enjoy breathtaking Vancouver, the camaraderie of our peers, and the wealth of information that we hope you will gain through your presence and participation here.

With warmest regards,

Gregory N. Fuller, MD, PhD
The University of Texas MD Anderson Cancer Center
President, USCAP

Born in the nascent Texas Medical Center in Houston in 1954, I grew up in the city of South Houston with mom, dad, and beloved younger brother Mick. I first became enthralled with biology in Mrs. Thomas’s 6th grade Life Sciences class. This initial spark was rekindled at South Houston High School where, as a freshman, I had the good luck to encounter two more wonderfully creative and motivating teachers, Arthur Harper (Biology) and Jack Barclay (English), both of whom taught me invaluable lessons in critical thinking that have lasted a lifetime. After one brief semester at the University of Houston as an English major (another lifelong passion – a gift from Jack Barclay), I dropped out of college to work as a security guard. At the Lunar Science Institute (now Lunar and Planetary Institute), adjacent to NASA’s Johnson Space Center complex in Clear Lake, I worked the graveyard shift six nights a week (I figured if I was going to be a guard, might as well do it at an institution with some class). My boss at LSI, retired U.S. Army Gunnery Sergeant Guy Coleman, became another powerful influence in my life. I subsequently enrolled at San Jacinto College in Pasadena (Texas, not California) for summer school, intending to make up the semester I had missed and get back to English at UH in the autumn. But fate had other plans. Falling under the influence of two more inspirational professors, in this instance San Jac Biology professors Harrell Odom and John Locke, I ultimately completed my undergraduate education at Texas A&M University with the centennial class of 1976, earning a BS in Zoology. My most memorable, and totally beloved, professor from those years was the fearsome Dr. Jack Dobson, whose legendary course in Comparative Vertebrate Morphology struck fear in the hearts of several generations of A&M premed students.

Reflecting back on the experiences that informed my early education, the profound influence that teachers have upon their students, with the positive effects reverberating far into the future, is truly amazing. We all owe a debt to our teachers and mentors that we cannot repay to them directly, but we can pay it forward.

The summer after graduating from A&M, I went to work as a research technician in the neurochemistry laboratory of Dr. Richard C. Wiggins in the Department of Neurobiology and Anatomy at The University of Texas Medical School at Houston. With Dr. Wiggins’ encouragement and mentorship, I earned a Ph.D. in Biomedical Science (Neuroscience Program) from The University of Texas Graduate School of Biomedical Sciences, and served for one year on the faculty of The UT Medical School at Houston as Assistant Instructor of Neurobiology and Anatomy. A unique experience from this period was a two-week stint one summer as an extra in the John Travolta/Debra Winger movie Urban Cowboy. I was present during filming of all of the scenes shot at Gilley’s Night Club in Pasadena (understandably, any images of me dancing ended up on the cutting room floor before the movie was released).
After graduate school (and my brief career as an actor), I completed an M.D. degree at Baylor College of Medicine, also in the Texas Medical Center in Houston, where I had the privilege of learning from one of the great teachers of neuroanatomy and neuroscience, Robert Thalmann. The Baylor experience was followed by 5 years comprising internship, residency and fellowship at Duke, where I was extremely fortunate to have received Neuropathology training from two masters: F. Stephen Vogel and Peter C. Burger. Duke won 2 national basketball championships during my housestaff tenure there (although I take no personal credit for this).

After Duke, I returned to Texas and hometown Houston to join the faculty of The University of Texas M. D. Anderson Cancer Center as Assistant Professor of Pathology in 1992. The decision to take the job at MD Anderson was based largely on the opportunity MDACC afforded me to become an ultra-subspecialist, focusing exclusively on oncologic neuropathology, a privilege for which I am very grateful. There have been many wonderful scientific moments over the past 19 years, the best of which were joint triumphs shared with my colleagues, who are also my friends, such as the first application of the then newly emerging genomic approaches of transcriptome profiling and tissue microarray phenotyping to the investigation of brain tumor biology and molecular subclassification of diffuse gliomas with Wei Zhang in the 1990s; the early investigation of the regulatory role of REST/NRSF, a transcriptional repressor of neuronal differentiation genes, in medulloblastoma oncogenesis with Sadhan Majumder, and the first glioma modeling studies of controlled in vivo oncogene expression using the combined transgenic/somatic gene transfer RCAS/tva system with Eric Holland (now at Memorial Sloan-Kettering Cancer Center). In the education arena, it has been my distinct pleasure to co-direct the annual Texas Medical Center Neuropathology Review course for the past 19 years with my good friend and colleague J. Clay Goodman (Baylor College of Medicine). And no scientific or educational endeavor has provided more satisfaction than the innumerable activities and interpersonal interactions that I have experienced with the USCAP family over the years.

But my biggest personal achievement, by far, was meeting and securing the love and enduring support of my wonderful wife, Tina, whose wondrous smile I carry with me to work every day. How very lucky I was to catch her eye.

I have been deeply honored to have served as your President. The past year has been one of exciting transition for the USCAP, as noted in my Message below, and the future looks very bright for our Academy.
SATURDAY, March 17

RESIDENT'S WORKSHOP - 8:00 AM - 5:00 PM (pp 38)
Leadership, Collaboration, and Change in Health Care: A Residents Workshop for Essential Skills – Convention Centre 116-117

UNITED STATES AND CANADIAN ACADEMY OF PATHOLOGY REGISTRATION
Desk opens at 2:00 PM - Convention Centre Lobby

COMPANION MEETINGS - 7:00 - 10:00 PM (pp 39-43)
American Association of Neuropathologists – Contemporary Surgical Neuropathology: New Models and Molecular Diagnostics – Convention Centre 217-219
American Association of Ophthalmic Oncologists and Pathologists – Update on Molecular Mechanisms Relevant to Orbital Pathology – Convention Centre 223-224
American College of Veterinary Pathologists – Veterinary Neoplasia: One Medicine at the Diagnostic Level – Convention Centre 215
Association for Pathology Informatics – Pathology Informatics: An Evolving Sub-Specialty with Direct Impact on the Continuum of Patient Care – Convention Centre 205-207
Endocrine Pathology Society – Minimizing Gray Zones in Diagnosis of Endocrine Lesions – Convention Centre Ballroom D
International Society of Urological Pathology – 2012 Update in GU Pathology – What’s New and What’s Relevant – Convention Centre 211-214
Papanicolaou Society of Cytopathology in Coordination with American Society of Cytopathology – Diagnosing Lung Carcinoma in the Era of Personalized Medicine: Clinical, Pathologic, and Molecular Aspects – Convention Centre 220-222
Pulmonary Pathology Society – Pulmonary Pathology Practice Guidelines – Convention Centre 301-305

SUNDAY, March 18

COMPANION MEETINGS - 8:30 AM - 12:00 PM (pp 44-47)
Arthur Purdy Stout Society of Surgical Pathologists – Familial Cancer Syndromes: The Role of the Surgical Pathologist – Convention Centre Ballroom A/B
Binford-Dammin Society of Infectious Disease Pathologists Joint Meeting with Society for Ultrastructural Pathology - Pitfalls in the Diagnosis of Infectious Diseases: The Case for a Multidisciplinary Approach – Convention Centre 220-222
College of American Pathologists – Bridging the Divide Between Molecular and Surgical Pathology – Convention Centre 211-214
Hans Popper Hepatopathology Society – Liver Disease Update, 2012 – Convention Centre Ballroom C
Renal Pathology Society – Renal Fibrosis – Convention Centre 301-305
Society of Cardiovascular Pathology – Atherosclerosis: New Insights on an Old and Future Scourge – Convention Centre 205-207

COMPANION MEETINGS - 1:30 - 5:00 PM (pp 48-53)
American Society for Investigative Pathology in Coordination with Association for Molecular Pathology Joint Session with American Society for Clinical Pathology – Genomic Pathology in Clinical Diagnostics: Promises and Pitfalls of New Technologies – Convention Centre 223-224
History of Pathology Society – Adjunctive Technologies in Morphological Pathology: Advances in the 20th Century – Convention Centre 215 at 3:30 - 5:00 PM
International Society of Bone and Soft Tissue Pathology – Current Topics on Bone and Soft Tissue Pathology – Convention Centre 220-222
International Society of Gynecological Pathologists – The Origins of Ovarian Cancer Part 1 - Serous Tumors – Convention Centre Ballroom C
North American Society of Head and Neck Pathology – The Case That Taught Me the Most: A Presidential Perspective – Convention Centre 301-305
Paleopathology Club – Paleopathology of Canada – Convention Centre 215 at 1:30 - 3:00 PM
Rodger C. Haggitt Gastrointestinal Pathology Society – Manifestations of Systemic Diseases in the GI Tract – Convention Centre Ballroom A/B
Society for Hematopathology – Novel Insights of High-Throughput Technologies in Hematopoietic Conditions – Convention Centre 211-214
COMPANION MEETINGS - 7:30 - 10:30 PM (pp 53-55)
American Society of Cytopathology in Coordination with Papanicolaou Society of Cytopathology – Four “Ps” of Pulmonary Cytopathology: Procedural, Predictive, Personalized and Participatory – Convention Centre 301-305
Association for Molecular Pathology Joint Meeting with American Society for Clinical Pathology in Coordination with American Society for Investigative Pathology – Genomic Pathology in Clinical Diagnostics: Promises and Pitfalls of New Technologies – Convention Centre 220-222
International Society of Breast Pathology – In Situ Breast Carcinoma – What’s New? From Pathology to Clinical Management – Convention Centre Ballroom C

EVENING SPECIALTY CONFERENCES - 7:30 - 9:30 PM (pp 56-59)
Gynecologic Pathology – Two Debates in Gynecologic Pathology – Convention Centre Ballroom A/B
Housestaff Specialty Conference – Negotiating for Your First Job – Convention Centre Ballroom D
Ophthalmic Pathology – Pathology of the Cornea – Convention Centre 215
Pediatric Pathology – Beyond Chorioamnionitis: What You Didn’t Know You Were Missing During Placental Examination – Convention Centre 217-219
Pulmonary Pathology – Neoplasms Presenting as Diffuse Lung Disease – Convention Centre 211-214
Renal Pathology – Yes, We Still Need Electron Microscopy – Convention Centre 205-207

SCIENTIFIC AND TECHNICAL EXHIBITS
Convention Centre Exhibit Hall B3 & C
Monday - Tuesday Wednesday
9:30 AM - 4:30 PM 9:30 AM - 4:00 PM

MORNING PROFFERED PAPERS AFTERNOON PROFFERED PAPERS EVENING SPECIALTY CONFERENCES
March 19
8:00 AM - 12:00 PM Sessions A-H (pp 64-68) Various Rooms in the Convention Centre
Sessions A-H (pp 86-90) Various Rooms in the Convention Centre
7:30 – 9:30 PM (pp 107-108) Cardiovascular Pathology – Convention Centre 220-222
SPECIAL COURSE - Introduction to Molecular Pathology for the Practicing Pathologist: Technology, Assay Interpretation and Pitfalls
8:00 AM - 4:30 PM – Convention Centre 220-222 (pp 60-61)
SPECIAL COURSE - A Practical Guide to Molecular Testing in Cancer
7:50 AM - 1:00 PM – Convention Centre 301-305 (pp 61-62)
SPECIAL COURSE - Careers in Pathology Investigation: Prepare to Launch
2:00 – 4:00 PM – Convention Centre 301-305 (pp 62-63)

POSTER SESSION I
9:30 AM - 12:00 PM Convention Centre
Exhibit Hall B3 & C (pp 68-84)

POSTER SESSION II
1:00 - 4:30 PM Convention Centre
Exhibit Hall B3 & C (pp 90-106)

SPECIAL COURSE - Basic Principles in Cytology
8:00 AM - 5:00 PM – Convention Centre 301-305 (pp 109-110)
SPECIAL COURSE - Advanced Molecular Pathology
8:00 AM - 1:00 PM – Convention Centre 220-222 (pp 110-111)
SPECIAL COURSE - Navigating the Academic Waters: A Survival Guide for Residents and Junior Faculty
2:00 – 4:00 PM – Convention Centre 220-222 (pp 111)

NATHAN KAUFMAN TIMELY TOPICS LECTURE (pp 85)
The Cancer Genome A Step Towards Personalized Therapy
4 30 – 5 30 PM – Vancouver Convention Centre Ballroom A-D (pp 85)
### BUSINESS MEETING, AWARD PRESENTATIONS AND MAUDE ABBOTT LECTURE
3:30 - 5:00 PM - Convention Centre Ballroom A-D

### USCAP FOUNDATION BENEFIT RECEPTION
6:00 - 7:30 PM - Convention Centre Ballroom Pre-Function Area

<table>
<thead>
<tr>
<th>Wednesday</th>
<th>LONG COURSE - 8:00 AM - 5:30 PM</th>
<th>SPECIALTY CONFERENCES</th>
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<tbody>
<tr>
<td>March 21</td>
<td>Malignant Lymphomas – Building on the Past, Moving to the Future Convention Centre Ballroom B (pp 162-163) 8:00 AM - 12:20 PM and 1:30 – 5:30 PM</td>
<td>7:30 – 9:30 PM (pp 198-199) Cytopathology - Convention Centre 301-305 Hematopathology – Convention Centre 211-214 Neuropathology – Convention Centre 220-222</td>
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<tr>
<th>SHORT COURSES (pp 164)</th>
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<tr>
<th>Thursday</th>
<th>SHORT COURSES (pp 200)</th>
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<tr>
<td>March 22</td>
<td>8:00 - 11:30 AM</td>
<td>1:00 - 4:30 PM</td>
<td>7:30 – 9:30 PM (pp 202-203) Breast Pathology - Convention Centre 301-305 Dermatopathology – Convention Centre 220-222 Gastrointestinal Pathology – Convention Centre Ballroom B</td>
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<th>Friday</th>
<th>SHORT COURSES (pp 204)</th>
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<td>March 23</td>
<td>8:00 - 11:30 AM</td>
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USCAP 2012 ANNUAL MEETING SCHEDULE - BY TOPIC

Itinerary Planner available on the USCAP website - www.uscap.org. You may also add personal items to the schedule and print a copy. In addition, the meeting site is now available via your handheld device. Visit www.tripbuilder.mobi/uscap2012.

{PLEASE NOTE: Short Courses scheduled on Wednesday, Thursday and Friday are not included in this listing}

AUTOPSY PATHOLOGY

Monday
8:00 AM Prof fered Papers Section H – CC 217-219
9:30 AM Poster Session I, Posters 4-7 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM Poster Session V, Posters 1-11 – CC Exhibit Hall B3 & C

BONE & SOFT TISSUE PATHOLOGY

Sunday
1:30 PM International Society of Bone and Soft Tissue Pathology – Current Topics on Bone and Soft Tissue Pathology – Convention Centre 220-222

Monday
9:30 AM Poster Session I, Posters 8-14 – CC Exhibit Hall B3 & C
1:00 PM Poster Session II, Posters 1-39 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Prof fered Papers Section G – CC 223-224
9:30 AM Poster Session III, Posters 1-12 – CC Exhibit Hall B3 & C
7:30 PM Bone & Soft Tissue Pathology – Specialty Conference – Convention Centre 301-305 Challenges in the Diagnosis of Bone and Soft Tissue Tumors

BREAST PATHOLOGY

Sunday
7:30 PM International Society of Breast Pathology – Convention Centre Ballroom C
In Situ Breast Carcinoma – What’s New? From Pathology to Clinical Management

Monday
8:00 AM Prof fered Papers Section B – CC Ballroom C
9:30 AM Poster Session I, Posters 15-47 – CC Exhibit Hall B3 & C
1:00 PM Prof fered Papers Section B – CC Ballroom C
1:00 PM Poster Session II, Posters 40-79 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Prof fered Papers Section B – CC Ballroom C
9:30 AM Poster Session III, Posters 13-37 – CC Exhibit Hall B3 & C
1:00 PM Poster Session IV, Posters 1-15 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM Poster Session V, Posters 12-61 – CC Exhibit Hall B3 & C
1:00 PM Poster Session VI, Posters 1-33 – CC Exhibit Hall B3 & C

Thursday
7:30 PM Breast Pathology – Specialty Conference – Convention Centre 301-305
Mimics in Breast Pathology

CARDIOVASCULAR PATHOLOGY

Sunday
8:30 AM Society of Cardiovascular Pathology – Convention Centre 205-207
Atherosclerosis: New Insights on an Old and Future Scourge

Monday
9:30 AM Poster Session I, Posters 48-50 – CC Exhibit Hall B3 & C
7:30 PM Cardiovascular Pathology – Specialty Conference – Convention Centre 220-222
Corona Mortis: Myocardial Ischemia - Morphology and Contemporary Views on Causation and Forensic Aspects

Tuesday
2:00 PM Prof fered Papers Section H2 – CC 217-219

Wednesday
1:00 PM Poster Session VI, Posters 34-47 – CC Exhibit Hall B3 & C

CYTOPATHOLOGY

Saturday
7:00 PM Papanicolaou Society of Cytopathology in Coordination with American Society of Cytopathology – Convention Centre 220-222
Diagnosing Lung Carcinoma in the Era of Personalized Medicine: Clinical, Pathologic, and Molecular Aspects

Sunday
7:30 PM American Society of Cytopathology in Coordination with Papanicolaou Society of Cytopathology – Convention Centre 301-305
Four “Ps” of Pulmonary Cytopathology: Procedural, Predictive, Personalized and Participatory

Monday
9:30 AM Poster Session I, Posters 51-69 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Basic Principles in Cytology – Special Course – Convention Centre 301-305
8:00 AM Prof fered Papers Section F – CC 205-207
9:30 AM Poster Session III, Posters 38-85 – CC Exhibit Hall B3 & C
1:00 PM Prof fered Papers Section C – CC 211-214

Wednesday
1:00 PM Poster Session VI, Posters 48-95 – CC Exhibit Hall B3 & C
7:30 PM Cytopathology – Specialty Conference – Convention Centre 301-305
DERMATOPATHOLOGY

Sunday
1:30 PM American Society of Dermatopathology – Convention Centre 205-207
What is New in Dermatopathology? From Neoplastic to Inflammatory Conditions

Monday
8:00 AM Proffered Papers Section F – CC 205-207
9:30 AM Poster Session I, Posters 70-86 – CC Exhibit Hall B3 & C

Tuesday
9:30 AM Poster Session III, Posters 86-122 – CC Exhibit Hall B3 & C

Wednesday
1:00 PM Poster Session VI, Posters 96-131 – CC Exhibit Hall B3 & C

Thursday
7:30 PM Dermatopathology – Specialty Conference – Convention Centre 220-222
Technical Problems in Dermatopathology

EDUCATION

Monday
8:00 AM Proffered Papers Section H – CC 217-219
9:30 AM Poster Session I, Posters 87-92 – CC Exhibit Hall B3 & C
9:30 AM Poster Session III, Posters 123-132 – CC Exhibit Hall B3 & C

ENDOCRINE PATHOLOGY

Saturday
7:00 PM Endocrine Pathology Society – Convention Centre Ballroom D
Minimizing Gray Zones in Diagnosis of Endocrine Lesions

Monday
9:30 AM Poster Session I, Posters 93-98 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section H – CC 217-219

Tuesday
1:00 PM Poster Session IV, Posters 16-51 – CC Exhibit Hall B3 & C

GASTROINTESTINAL PATHOLOGY

Sunday
1:30 PM Rodger C. Haggitt Gastrointestinal Pathology Society – Convention Centre Ballroom A/B
Manifestations of Systemic Diseases in the GI Tract

Monday
8:00 AM Proffered Papers Section D – CC Ballroom D
9:30 AM Poster Session I, Posters 99-119 – CC Exhibit Hall B3 & C
1:00 PM Poster Session II, Posters 80-131 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Proffered Papers Section D – CC Ballroom D
9:30 AM Poster Session III, Posters 133-142 – CC Exhibit Hall B3 & C
1:00 PM Poster Session IV, Posters 52-78 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM Poster Session V, Posters 62-81 – CC Exhibit Hall B3 & C

Thursday
7:30 PM Gastrointestinal Pathology – Specialty Conference – Convention Centre Ballroom B
Gastrointestinal Pathology at the 4 Corners of the World

GENERAL

Saturday
8:00 AM Leadership, Collaboration, and Change in Health Care: A Residents Workshop for Essential Skills – Convention Centre 116-117
7:00 PM American College of Veterinary Pathologists – Convention Centre 215
Veterinary Neoplasia: One Medicine at the Diagnostic Level

Sunday
8:30 AM Arthur Purdy Stout Society of Surgical Pathologists – Convention Centre Ballroom A/B
Familial Cancer Syndromes: The Role of the Surgical Pathologist

8:30 AM College of American Pathologists – Convention Centre 211-214
Bridging the Divide Between Molecular and Surgical Pathology

1:30 PM Paleopathology Club – Convention Centre 215
Paleopathology of Canada

3:30 PM History of Pathology Society – Convention Centre 215
Adjunctive Technologies in Morphological Pathology: Advances in the 20th Century

5:30 PM Housestaff Fellowship Fair – Convention Centre Ballroom D
Negotiating for Your First Job

Monday
2:00 PM Careers in Pathology Investigation: Prepare to Launch – Convention Centre 301-305

7:30 PM Surgical Pathology – Specialty Conference – Convention Centre Ballroom A-D
The Best Damned Teaching Case You Have Ever Come across in Your Specialty

Tuesday
2:00 PM Navigating the Academic Waters: A Survival Guide for Residents and Junior Faculty – Convention Centre 220-222

3:30 PM Business Meeting and Awards – Convention Centre Ballroom A-D

6:00 PM USCAP Foundation Benefit Reception – CC Ballroom Pre-Function Area

GENITOURINARY PATHOLOGY

Saturday
7:00 PM International Society of Urological Pathology – Convention Centre 220-222

7:30 PM Genitourinary Pathology – Specialty Conference – Convention Centre Ballroom A-B
The Potpourri of Interesting Urological Pathology
GYNECOLOGIC PATHOLOGY

Sunday
1:30 PM International Society of Gynecological Pathologists – Convention Centre Ballroom C
The Origins of Ovarian Cancer Part 1 - Serous Tumors
7:30 PM Gynecologic Pathology – Specialty Conference – Convention Centre Ballroom A/B
Two Debates in Gynecologic Pathology

Monday
8:00 AM Proffered Papers Section E – CC 202-204
9:30 AM Poster Session I, Posters 168-194 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Proffered Papers Section E – CC 202-204
9:30 AM Poster Session III, Posters 169-203 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section B – CC Ballroom C
1:00 PM Poster Session IV, Posters 118-152 – CC Exhibit Hall B3 & C
5:00 PM Maude Abbott Lecture – CC Ballroom A-D
Ovarian Carcinogenesis. Myths, Models and Paradigms. Observations of a Biology Watcher

Wednesday
9:30 AM Poster Session V, Posters 128-163 – CC Exhibit Hall B3 & C
1:00 PM Poster Session VI, Posters 180-215 – CC Exhibit Hall B3 & C

HEAD & NECK PATHOLOGY

Sunday
1:30 PM North American Society of Head and Neck Pathology – Convention Centre 301-305
The Case That Taught Me the Most: A Presidential Perspective

Monday
9:30 AM Poster Session I, Posters 195-205 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section F – CC 205-207

Tuesday
1:00 PM Poster Session IV, Posters 153-175 – CC Exhibit Hall B3 & C
7:30 PM Head & Neck/Endocrine Pathology – Specialty Conference – Convention Centre 211-214
Diagnostically Challenging Cases

Wednesday
9:30 AM Poster Session V, Posters 164-187 – CC Exhibit Hall B3 & C

HEMATOPATHOLOGY

Sunday
1:30 PM Society for Hematopathology – Convention Centre 211-214
Novel Insights of High-Throughput Technologies in Hematopoietic Conditions

Monday
8:00 AM Proffered Papers Section C – CC 211-214
9:30 AM Poster Session I, Posters 206-244 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section C – CC 211-214
1:00 PM Poster Session II, Posters 194-234 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Proffered Papers Section C – CC 211-214
9:30 AM Poster Session III, Posters 204-241 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section G – CC 223-224
1:00 PM Poster Session IV, Posters 176-214 – CC Exhibit Hall B3 & C

Wednesday
8:00 AM Malignant Lymphomas – Convention Centre Ballroom B
Building on the Past, Moving to the Future
9:30 AM Poster Session V, Posters 188-231 – CC Exhibit Hall B3 & C
1:00 PM Poster Session VI, Posters 216-249 – CC Exhibit Hall B3 & C
7:30 PM Hematopathology – Specialty Conference – Convention Centre 211-214
Leaving Lymphomas: Loving Leukemias and Making-Out with Myeloid Malignancies

INFECTIOUS DISEASES PATHOLOGY

Sunday
8:30 AM Binford – Dammin Society of Infectious Disease Pathologists Joint Meeting with Society for Ultrastructural Pathology – Convention Centre 220-222
Pitfalls in the Diagnosis of Infectious Diseases: The Case for a Multidisciplinary Approach

Monday
8:00 AM Proffered Papers Section H – CC 217-219
9:30 AM Poster Session I, Posters 245-246 – CC Exhibit Hall B3 & C
7:30 PM Infectious Disease Pathology – Specialty Conference – Convention Centre 301-305

Wednesday
1:00 PM Poster Session VI, Posters 250-260 – CC Exhibit Hall B3 & C

INFORMATICS

Saturday
7:00 PM Association for Pathology Informatics – Convention Centre 205-207
Pathology Informatics: An Evolving Sub-Specialty with Direct Impact on the Continuum of Patient Care

Monday
8:00 AM Proffered Papers Section H – CC 217-219

Tuesday
1:00 PM - 4:30 PM Poster Session IV, Posters 215-233 – CC Exhibit Hall B3 & C
KIDNEY PATHOLOGY

Sunday
8:30 AM Renal Pathology Society – Convention Centre 301-305
Renal Fibrosis
7:30 PM Renal Pathology – Specialty Conference – Convention Centre 205-207
Yes, We Still Need Electron Microscopy

Monday
9:30 AM Poster Session I, Posters 247-255 – CC Exhibit Hall B3 & C

Tuesday
8:00 AM Proffered Papers Section H – CC 217-219

Wednesday
1:00 PM Poster Session VI, Posters 261-307 – CC Exhibit Hall B3 & C

LIVER PATHOLOGY

Sunday
8:30 AM Hans Popper Hepatopathology Society – Convention Centre Ballroom C
Liver Disease Update, 2012

Monday
9:30 AM Poster Session I, Posters 256-268 – CC Exhibit Hall B3 & C
1:00 PM Proffered Papers Section E – CC 202-204

Tuesday
9:30 AM Poster Session III, Posters 242-255 – CC Exhibit Hall B3 & C
1:00 PM Poster Session IV, Posters 234-245 – CC Exhibit Hall B3 & C
7:30 PM Liver Pathology – Specialty Conference – CC Ballroom C
Just Some Good Cases

Wednesday
9:30 AM Poster Session V, Posters 232-246 – CC Exhibit Hall B3 & C

MOLECULAR PATHOLOGY

Sunday
1:30 PM American Society for Investigative Pathology in Coordination with Association for Molecular Pathology Joint Session with American Society for Clinical Pathology – Convention Centre 223-224
Genomic Pathology in Clinical Diagnostics: Promises and Pitfalls of New Technologies

7:30 PM Association for Molecular Pathology Joint Meeting with American Society for Clinical Pathology in Coordination with American Society for Investigative Pathology – Convention Centre 220-222
Genomic Pathology in Clinical Diagnostics: Promises and Pitfalls of New Technologies

Monday
7:50 AM A Practical Guide to Molecular Testing in Cancer – Convention Centre 301-305
8:00 AM Introduction to Molecular Pathology for the Practicing Pathologist: Technology, Assay Interpretation, and Pitfalls – Convention Centre 220-222

Tuesday
8:00 AM Advanced Molecular Pathology – Convention Centre 220-222

NEUROPATHOLOGY

Saturday
7:00 PM American Association of Neuropathologists – Convention Centre 217-219
Contemporary Surgical Neuropathology: New Models and Molecular Diagnostics

Monday
9:30 AM Poster Session I, Posters 275-280 – CC Exhibit Hall B3 & C

Tuesday
1:00 PM Proffered Papers Section F – CC 205-207
1:00 PM Poster Session IV, Posters 246-281 – CC Exhibit Hall B3 & C

Wednesday
7:30 PM Neuropathology – Specialty Conference – Convention Centre 220-222
Surgical Neuropathology: Lessons Learned from Dr. Bernd Scheithauer

OPHTHALMIC PATHOLOGY

Saturday
7:00 PM American Association of Ophthalmic Oncologists and Pathologists – Convention Centre 223-224
Update on Molecular Mechanisms Relevant to Orbital Pathology

Sunday
7:30 PM Ophthalmic Pathology – Specialty Conference – Convention Centre 215
Pathology of the Cornea

Monday
8:00 AM Proffered Papers Section H – CC 217-219

Wednesday
1:00 PM Poster Session VI, Posters 308-316 – CC Exhibit Hall B3 & C

PANCREAS PATHOLOGY

Monday
8:00 AM Proffered Papers Section G1 – CC 223-224

Tuesday
9:30 AM Poster Session I, Posters 269-274 – CC Exhibit Hall B3 & C
1:00 PM Poster Session IV, Posters 282-291 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM Poster Session V, Posters 247-256 – CC Exhibit Hall B3 & C

PATHOBIOLOGY

Monday
9:30 AM Poster Session I, Posters 281-287 – CC Exhibit Hall B3 & C
11:00 AM Proffered Papers Section G2 – CC 223-224

Wednesday
9:30 AM Poster Session V, Posters 257-286 – CC Exhibit Hall B3 & C

PEDIATRIC PATHOLOGY

Sunday
7:30 PM Pediatric Pathology – Specialty Conference – Convention Centre 217-219
Beyond Chorioamnionitis: What You Didn’t Know You Were Missing During Placental Examination

Monday
8:00 AM Proffered Papers Section H – CC 217-219
1:00 PM Poster Session II, Posters 235-238 – CC Exhibit Hall B3 & C
PULMONARY PATHOLOGY

Saturday
7:00 PM  Pulmonary Pathology Society – Convention Centre 301-305
   Pulmonary Pathology Practice Guidelines

Sunday
7:30 PM  Pulmonary Pathology – Specialty Conference – Convention Centre 211-214
   Neoplasms Presenting as Diffuse Lung Disease

Monday
9:30 AM  Poster Session I, Posters 288-299 – CC Exhibit Hall B3 & C
1:00 PM  Proffered Papers Section D – CC Ballroom D

Tuesday
9:30 AM  Poster Session III, Posters 292-316 – CC Exhibit Hall B3 & C
1:00 PM  Proffered Papers Section D – CC Ballroom D
1:00 PM  Poster Session IV, Posters 292-316 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM  Poster Session V, Posters 287-311 – CC Exhibit Hall B3 & C

QUALITY ASSURANCE

Monday
9:30 AM  Poster Session I, Posters 300-310 – CC Exhibit Hall B3 & C
1:00 PM  Proffered Papers Section G – CC 223-224
1:00 PM  Poster Session II, Posters 239-284 – CC Exhibit Hall B3 & C

SPECIAL CATEGORY - PAN-GENOMIC/PAN-PROTEOMIC APPROACHES TO CANCER

Monday
9:30 AM  Poster Session I, Posters 1-3 – CC Exhibit Hall B3 & C
4:30 PM  Timely Topics Lecture – CC Ballroom A-D
   The Cancer Genome: A Step Towards Personalized Therapy

Tuesday
9:30 AM  Poster Session III, Posters 266-291 – CC Exhibit Hall B3 & C
1:00 PM  Proffered Papers Section H1 – CC 217-219

TECHNIQUES

Monday
9:30 AM  Poster Session I, Posters 311-315 – CC Exhibit Hall B3 & C
1:00 PM  Poster Session II, Posters 285-316 – CC Exhibit Hall B3 & C

Tuesday
1:00 PM  Proffered Papers Section E – CC 202-204

ULTRASTRUCTURAL

Sunday
8:30 AM  Binford – Dammin Society of Infectious Disease Pathologists Joint Meeting with
   Society for Ultrastructural Pathology – Convention Centre 220-222
   Pitfalls in the Diagnosis of Infectious Diseases: The Case for a Multidisciplinary
   Approach

Monday
8:00 AM  Proffered Papers Section H – CC 217-219
9:30 AM  Poster Session I, Posters 316-316 – CC Exhibit Hall B3 & C

Wednesday
9:30 AM  Poster Session V, Posters 312-316 – CC Exhibit Hall B3 & C
Receptions

Please note:
For Alumni receptions: You are invited to attend if you are an alumnus, a guest of an alumnus, or a friend of the institution.
For Specialty/Companion Society Receptions: You are invited if you are a member of this society or are considering joining the society and wish to learn more about it. All luncheons are by invitation only.

PP=Pan Pacific Vancouver Hotel
FW=The Fairmont Waterfront Hotel

Saturday, March 17th

- Int'l Soc. of Urological Path Reception
  - Location: PP Pacific Rim 1
  - Time: 5:00-7:00PM
- Papanicolaou Soc. Reception
  - Location: PP Oceanview Ste. 3
  - Time: 5:00-7:00PM
- Endocrine Society Reception
  - Location: PP Oceanview Ste. 4
  - Time: 5:30-7:00PM
- ADASP Reception
  - Location: PP Cypress Suite
  - Time: 5:30-7:00PM

Sunday, March 18th

- University of Pittsburgh Luncheon
  - Location: PP Oceanview Ste. 1
  - Time: 12:00-1:00PM
- ASCP Resident's Reception
  - Location: PP Pacific Rim 2
  - Time: 4:00-5:30PM
- Arthur Purdy Stout Soc. Reception
  - Location: PP Crystal Pavilion C
  - Time: 5:00-7:00PM
- Association of Indian Pathologists Reception
  - Location: PP Crystal Pavilion A
  - Time: 5:00-7:00PM
- Columbia Univ. (Pres. Hosp.) Alumni Reception
  - Location: PP Pacific Rim 1
  - Time: 5:00-7:00PM
- Albany Medical College Reception
  - Location: PP Crystal Pavilion B
  - Time: 5:00-8:00PM
- Head & Neck Reception
  - Location: PP Oceanview Ste. 1
  - Time: 5:30-7:30PM
- Stanford University Reception
  - Location: PP Oceanview Ste. 5
  - Time: 5:30-7:30PM
- University of Washington Alumni Reception
  - Location: PP Gazebo 1
  - Time: 5:30-7:30PM
- Mass General Alumni Reception
  - Location: PP Gazebo 2
  - Time: 5:30-7:30PM
- NYU School of Medicine Alumni Reception
  - Location: PP Cypress Suite
  - Time: 5:30-7:30PM
- GI Path Soc. Reception
  - Location: PP Coal Harbour Ste.
  - Time: 5:30-8:00PM

Monday, March 19th

- University of Texas Medical Branch Reunion
  - Location: PP Pacific Rim 1
  - Time: 5:00-7:00PM
- University of Pennsylvania Reception
  - Location: PP Oceanview Ste. 5
  - Time: 5:00-7:00PM
- MD Anderson Reception
  - Location: PP Cypress Suite
  - Time: 5:30-7:30PM
- Brigham and Women's Reception
  - Location: PP Crystal Pavilion A
  - Time: 5:30-7:30PM
- Johns Hopkins Reception
  - Location: PP Pacific Rim 2
  - Time: 5:30-7:30PM
- Washington University in St. Louis Reception
  - Location: FW Waterfront BR A
  - Time: 5:30-7:30PM
- Emory University Reception
  - Location: PP Coal Harbour Ste.
  - Time: 5:30-7:30PM
- University of Chicago Reception
  - Location: PP Crystal Pavilion B
  - Time: 5:30-7:30PM
- Cleveland Clinic Alumni Reception
  - Location: PP Crystal Pavilion C
  - Time: 5:30-7:30PM
- Mayo Alumni Reception
  - Location: FW Waterfront BR B
  - Time: 5:30-7:30PM
- Dartmouth-Hitchcock/Fletcher Allen Reception
  - Location: PP Gazebo 1
  - Time: 5:30-7:30PM
- Vanderbilt Alumni Reception
  - Location: PP Oceanview Ste. 8
  - Time: 5:30-7:30PM
- Northwestern University Reception
  - Location: PP Oceanview Ste. 7
  - Time: 5:30-7:30PM
- University of Toronto Reception
  - Location: FW Malaspina Room
  - Time: 5:30-7:00PM
- AJ French Soc. Reception
  - Location: FW Terrace Room
  - Time: 5:30-7:30PM
- Alumni & Friends of Yale Reception
  - Location: FW Chekamus Room
  - Time: 5:30-7:30PM
- IAP Arab Division Reception
  - Location: FW Princess Louisa Suite
  - Time: 5:30-7:30PM
- UCLA Alumni Reception
  - Location: FW Nootka Room
  - Time: 5:30-7:30PM
- Latin American Path Foundation Reception
  - Location: FW MacKenzie II
  - Time: 5:30-7:30PM
- Int’l Assoc. of Chinese Path Reception
  - Location: PP Gazebo 2
  - Time: 9:00-11:00PM
- The Methodist Hospital Resident Reception
  - Location: FW MacKenzie 1
  - Time: 6:00-9:00PM

Tuesday, March 20th

- Beth Israel Deaconess Hospital Reception
  - Location: PP Pacific Rim 1
  - Time: 5:30-7:30PM
- Histopathology Ed Board Reception
  - Location: PP Oceanview Ste. 5
  - Time: 5:30-7:30PM
- MSKCC Alumni Reception
  - Location: PP Coal Harbour Suite
  - Time: 5:30-7:30PM
GENERAL INFORMATION

MEETING VENUE

The 2012 USCAP Annual Meeting Scientific Sessions will be held at the Vancouver Convention Centre. Complete registration, travel and hotel information is available on the USCAP website – www.uscap.org. Official meeting hotel reservations must be made on-line.

REGISTRATION CENTER

The USCAP Registration Desk will be located in the Convention Centre Lobby and will be open during the following hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturday, March 17</td>
<td>2:00 – 7:00 PM</td>
</tr>
<tr>
<td>Sunday, March 18 – Thursday, March 22</td>
<td>7:00 AM – 5:00 PM</td>
</tr>
<tr>
<td>Friday, March 23</td>
<td>7:00 AM – 1:00 PM</td>
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ON SITE REGISTRATION FEES

<table>
<thead>
<tr>
<th></th>
<th>Member of USCAP/IAP</th>
<th>Junior Member (USCAP only)</th>
<th>Senior Non-Member</th>
<th>Non-Member Resident/Fellow</th>
</tr>
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<tbody>
<tr>
<td>General Registration Only</td>
<td>$200</td>
<td>$90</td>
<td>$250</td>
<td>$180</td>
</tr>
<tr>
<td>General Registration and Companion Meetings</td>
<td>$375</td>
<td>$160</td>
<td>$425</td>
<td>$320</td>
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<tr>
<td>Companion Meetings Only</td>
<td>$175</td>
<td>$85</td>
<td>$175</td>
<td>$175</td>
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<tr>
<td>Residents Workshop-Leadership</td>
<td>n/a</td>
<td>$125</td>
<td>n/a</td>
<td>$150</td>
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<tr>
<td>Long Course - Malignant Lymphoma</td>
<td>$295</td>
<td>$145</td>
<td>$340</td>
<td>$285</td>
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<tr>
<td>Short Courses per half-day</td>
<td>$200</td>
<td>$100</td>
<td>$230</td>
<td>$190</td>
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<tr>
<td>Special Courses:</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Practical Guide to Molecular Testing in Cancer</td>
<td>$240</td>
<td>$120</td>
<td>$275</td>
<td>$230</td>
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<tr>
<td>Advanced Molecular Pathology</td>
<td>$240</td>
<td>$120</td>
<td>$275</td>
<td>$230</td>
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<tr>
<td>Special Courses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Principles in Cytology</td>
<td>$315</td>
<td>$160</td>
<td>$360</td>
<td>$305</td>
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<tr>
<td>Intro to Molecular Path for the Practicing Pathologist</td>
<td>$315</td>
<td>$160</td>
<td>$360</td>
<td>$305</td>
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<tr>
<td>Special Courses:</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Careers in Investigative Pathology</td>
<td>$105</td>
<td>$55</td>
<td>$120</td>
<td>$95</td>
</tr>
<tr>
<td>Navigating the Academic Waters</td>
<td>$105</td>
<td>$55</td>
<td>$120</td>
<td>$95</td>
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</table>

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.

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.
EXHIBITS

Scientific and technical exhibits, book and journal displays will be in the Convention Centre Exhibit Hall B3 & C. The exhibits are open from Monday, March 19 through Wednesday, March 21 the same hours as the poster sessions.

POSTER SESSIONS

<table>
<thead>
<tr>
<th>Session</th>
<th>Date</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Session I</td>
<td>Monday, March 19</td>
<td>9:30 AM – 12:00 PM</td>
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<tr>
<td>Session II</td>
<td>Monday, March 19</td>
<td>1:00 – 4:30 PM</td>
</tr>
<tr>
<td>Session III</td>
<td>Tuesday, March 20</td>
<td>9:30 AM – 12:00 PM</td>
</tr>
<tr>
<td>Session IV</td>
<td>Tuesday, March 20</td>
<td>1:00 – 4:30 PM</td>
</tr>
<tr>
<td>Session V</td>
<td>Wednesday, March 21</td>
<td>9:30 AM – 12:00 PM</td>
</tr>
<tr>
<td>Session VI</td>
<td>Wednesday, March 21</td>
<td>1:00 – 4:00 PM</td>
</tr>
</tbody>
</table>

Those responsible for presentation of a poster should be at these sessions during the coffee breaks in order to expand on the material and to answer questions.

Monday AM Break 9:30 – 11:00 Tuesday AM Break 9:30 – 11:00 Wednesday AM Break 9:30 – 11:00
PM Break 3:00 – 4:30 PM Break 2:45 – 4:00 PM Break 2:30 – 4:00

STOWELL-ORBISON, AUTOPSY and SURGICAL PATHOLOGY AWARDS FOR PATHOLOGISTS-IN-TRAINING

The Stowell-Orbison Awards were inaugurated to recognize scientific achievement by young pathologists while in training. The selections will be made by members of the Education Committee. The Association of Directors of Anatomic and Surgical Pathology and the USCAP jointly offer an award for the best scientific poster based on autopsy material and in general surgical pathology. The selection will be made by a panel of members of the ADASP. Posters eligible for these Awards will be on display on Monday morning. The awards will be presented during the Business Meeting on Tuesday, March 20

BENJAMIN CASTLEMAN AWARD

The Benjamin Castleman Award is presented to a pathologist or a pathologist-in-training who has not yet reached the age of 40, for an outstanding paper published in English. The subject may be on any topic in pathology based on human material. This award is administered by the Massachusetts General Hospital and the United States and Canadian Academy of Pathology and financed by a fund established by former students, residents, and colleagues at the Massachusetts General Hospital in recognition of Dr. Castleman’s valued contributions to human anatomic pathology. The award will be presented at the Business Meeting on Tuesday, March 20.

F. STEPHEN VOGEL AWARD

The F. Stephen Vogel Award was established by contributions to a fund created by his family and friends. It is awarded for an outstanding paper by a resident or fellow published in one of the Academy journals, Modern Pathology or Laboratory Investigation, during the preceding calendar year. The Awardee must: 1) be a member, in good standing of the United States and Canadian Academy of Pathology for at least a year prior to receiving the award; 2) possess an M.D. or equivalent degree; and 3) be a pathology resident or fellow in an accredited training program at the time of the paper’s acceptance for publication. Applicants should be the first author, or document a significant contribution to the paper. For papers with multiple authorship, only one author is eligible. The award will be presented at the Business Meeting on Tuesday, March 20.

CONTINUING MEDICAL EDUCATION CREDITS

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 53.5 AMA PRA Category 1 Credits™. 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 Credits™.

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 Credits™.
CME Credits
Certificates of continuing medical education *AMA PRA Category 1 Credits™* will be issued through the USCAP. CME credits will only be awarded after completion of an online evaluation form. The evaluation and CME claim forms can be accessed through the USCAP website after the meeting begins: [www.uscap.org](http://www.uscap.org).

Session Types for Which *AMA PRA Category 1 Credits™* Are Offered:

<table>
<thead>
<tr>
<th>Session Type</th>
<th>Credits</th>
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<tr>
<td>Scientific Abstract Presentations</td>
<td>8.75</td>
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<tr>
<td>Specialty Conferences</td>
<td>2.0</td>
</tr>
<tr>
<td>Kaufman Timely Topics Lecture</td>
<td>1.0</td>
</tr>
<tr>
<td>Maude Abbott Lecture</td>
<td>1.0</td>
</tr>
<tr>
<td>Long Course</td>
<td>5.25</td>
</tr>
<tr>
<td>Short Courses</td>
<td>3.0</td>
</tr>
<tr>
<td>Molecular Special Courses</td>
<td>4.5</td>
</tr>
<tr>
<td>Intro Molecular Special Course</td>
<td>6.25</td>
</tr>
<tr>
<td>Basic Cytology Special Course</td>
<td>7.0</td>
</tr>
<tr>
<td>Careers and Navigating Special Courses</td>
<td>2.0</td>
</tr>
<tr>
<td>Companion Meetings</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Self-Assessment Module Credits
The USCAP is approved 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 with a minimum performance level of 80% correct in order to claim SAM credits.

The number of SAM credits has increased again this year with the addition of SAM credits for Special Courses and the Long Course. There will be a total of 311.5 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 51.25 SAM credits during the Annual Meeting.

INTERNET CAFÉ
A bank of computers will be available in the Convention Centre Lobby. Please limit each use to 15 minutes so everyone will have an opportunity to use these.

SPEAKER PREVIEW ROOM
*Only electronic/LCD projection will be utilized for all presentations.* Specific details regarding AV requirements were sent to all presenters prior to the meeting. Computers as well as projection equipment will be available in the Speaker Preview – Convention Centre 109: beginning Friday, March 16 (3:00 – 6:00 pm), Saturday through Thursday (7:00 AM – 6:00 PM), and Friday (7:00 AM – 1:00 PM) so that individuals presenting papers, as well as faculty, may have the opportunity to review their materials and familiarize themselves with the projection equipment that will be used.

POSTER PICKUP AND POSTER VIEWING STATION
Poster Pick-up Location: Call4Posters® / iPosters™ Booth, Booth #702 of the Convention Centre Exhibit Hall. The hours are Monday and Tuesday 7:00AM – 5:00PM and Wednesday, 7:00AM – 4:00PM. Posters which were created, or submitted for printing and shipping, using Marathon Multimedia’s Call4Posters, may be picked up at their booth. All poster presenters have the option of submitting (free of charge) their posters electronically and having them posted on the USCAP website in iPosters where they will be available for viewing after the meeting. Please visit the Marathon booth to get details. This will provide an opportunity for a much larger audience to view your poster.

SECRETARIAT
United States and Canadian Academy of Pathology
3643 Walton Way Extension
Augusta, GA 30909
(706)733-7550 phone (706)733-8033 fax
help@uscap.org email / www.uscap.org website

Bruce R. Smoller, MD - Executive Vice President — bruce@uscap.org
Kerry Crockett, MBA, CAE, CMP - Executive Director — kerry@uscap.org
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Sally Miglionico - Membership Services Assistant — sally@uscap.org
Candace Spradley - Director of Education — candace@uscap.org
Brenden Taylor, MS - Associate Editor, eAcademy — brenden@uscap.org
Janice Wallace - Educational Program Assistant — janice@uscap.org
Nancy West - Assistant Meeting Planner — nancy@uscap.org
DISCLOSURE INFORMATION

The USCAP is committed to providing unbiased, balanced and objective educational programs. All presenters are required to disclose any pertinent information relative to their presentation. Faculty Disclosure for the following educational offerings will be made in the course syllabus which will be posted on the USCAP Website prior to the meeting – Companion Society Meetings and Specialty Conferences. Disclosure for the Long Course; Short Courses and Special Courses will be printed on the syllabus which is distributed at the course. Dr. Robert J. Kurman, the Maude Abbott Lecturer, has indicated that he does not have anything to disclose. Dr. Bogdan Czerniak, the Nathan Kayman Timely Topics Lecturer, has indicated that he has a licensing agreement with Molecular Abbott for the development of Aurora A as a FISH test for the detection of bladder cancer from which he receives royalties.

Authors of Scientific Abstracts must provide disclosure statements at the time of submission. The authors listed below have indicated that they do have a relationship which might be perceived as having an effect on the objectivity of their presentation. The abstract number is in the Book of Abstracts and the Supplement which is sent with the journals, and is also in parentheses after the abstract title in this book. These authors are also required to disclose the pertinent information at the presentation. The authors are also required to disclose to the audience prior to oral Platform presentations, or to include on the board for Posters, any off-label use of investigational products.

<table>
<thead>
<tr>
<th>Abstract #</th>
<th>Name</th>
<th>Relevant Disclosure Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Alexander Lazar</td>
<td>Consultant and Grant/Research Support from Novartis</td>
</tr>
<tr>
<td>36</td>
<td>Alexander Lazar</td>
<td>Consultant and Grant/Research Support from Novartis</td>
</tr>
<tr>
<td>41</td>
<td>Brian Rubin</td>
<td>Speaker's Bureau and develops educational material relating to the diagnosis of gastrointestinal stromal tumor for Novartis Pharmaceuticals</td>
</tr>
<tr>
<td>41</td>
<td>Raymond Tubbs</td>
<td>Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.</td>
</tr>
<tr>
<td>50</td>
<td>Darrell Borger</td>
<td>Consultant for BioReference Laboratories Inc.</td>
</tr>
<tr>
<td>51</td>
<td>Rita Kandel</td>
<td>Content expert for GlaxoSmithKline</td>
</tr>
<tr>
<td>53</td>
<td>Francois Le Loarer</td>
<td>Grant/Research Support from Roche</td>
</tr>
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<td>Alexander Lazar</td>
<td>Consultant and Grant/Research Support from Novartis</td>
</tr>
<tr>
<td>73</td>
<td>Torsten Nielsen</td>
<td>Holder of IP rights to the PAM50 assay from Bioclassifier LLC</td>
</tr>
<tr>
<td>76</td>
<td>Arul Chinnaiyan</td>
<td>Consultant for Gen-Probe and cofounder of Compendia Biosciences. Co-inventor on UM patent for the detection of ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.</td>
</tr>
<tr>
<td>76</td>
<td>Scott Tomlins</td>
<td>Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.</td>
</tr>
<tr>
<td>81</td>
<td>Alexander Lazar</td>
<td>Consultant and Grant/Research Support from Novartis</td>
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<tr>
<td>85</td>
<td>Peter Illei</td>
<td>Consultant for Genetech &amp; Leica Microsystems</td>
</tr>
<tr>
<td>86</td>
<td>David Mankoff</td>
<td>Grant/Research Support from Pfizer, Merck</td>
</tr>
<tr>
<td>86</td>
<td>Suzanne Dintzis</td>
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<tr>
<td>105</td>
<td>Mendes Mendes</td>
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<tr>
<td>105</td>
<td>Marianne Rogers</td>
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<tr>
<td>105</td>
<td>Azar Azad</td>
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<td>Martin Chang</td>
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<td>Philip Plotnick</td>
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<td>156</td>
<td>Jeffrey Ross</td>
<td>Consultant and Grant/Research Support from Foundation Medicine, Inc.</td>
</tr>
<tr>
<td>183</td>
<td>Binbin Yue</td>
<td>Employee of A&amp;G Pharmaceutical Inc</td>
</tr>
<tr>
<td>183</td>
<td>Ginette Serrero</td>
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<td>196</td>
<td>Taiying Chen</td>
<td>Employee of Epitomics, Inc.</td>
</tr>
<tr>
<td>196</td>
<td>Weimin Zhu</td>
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</tr>
<tr>
<td>196</td>
<td>Maria Frolikis</td>
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<tr>
<td>196</td>
<td>Zhiling Fang</td>
<td>Employee of Epitomics, Inc.</td>
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<tr>
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<td>Zhiqiang Liu</td>
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<tr>
<td>196</td>
<td>Nenghui Jiang</td>
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<tr>
<td>196</td>
<td>Hongyang Pan</td>
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</tr>
<tr>
<td>196</td>
<td>Aihua Li</td>
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<tr>
<td>204</td>
<td>Raymond Tubbs</td>
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</table>
Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Steven Potts  Employee of Flagship Biosciences

David Eberhard  Shareholder of Flagship Biosciences

Holger Lange  Employee of Flagship Biosciences

Nicholas Landis  Employee of Flagship Biosciences

David Young  Employee of Flagship Biosciences

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

Mirna Jarosz  Employee of Foundation Medicine, Inc.

Gary Palmer  Employee of Foundation Medicine, Inc.

Roman Yelensky  Employee of Foundation Medicine, Inc.

Doron Lipson  Employee, Shareholder, and stock option holder of Foundation Medicine, Inc.

Philip Stephens  Employee of Foundation Medicine, Inc.

Sean Downing  Employee of Foundation Medicine, Inc.

Maureen Cronin  Employee of Foundation Medicine, Inc.

Alex Parker  Employee of Foundation Medicine, Inc.

Kirsten Vang Nielsen  Employee of Dako

Sven Muller  Employee of Dako

Suzanne Dintzis  Grant/Research Support from Agency for Healthcare Research and Quality

Jack Regan  Employee of Bio-Rad Laboratories

Phil Belgrader  Employee of Bio-Rad Laboratories with significant financial interest as a result of QuantaLife acquisition by Bio-Rad.

Ryan Koehler  Employee of Bio-Rad Laboratories

Xia-Jun Ma  Employee and Shareholder of Advanced Cell Diagnostics, Inc.

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Hongwei Wang  Employee of Advanced Cell Diagnostics, Inc.

Nan Su  Employee of Advanced Cell Diagnostics, Inc.

Son Bui  Employee of Advanced Cell Diagnostics, Inc.

Yuling Luo  Employee and Shareholder of Advanced Cell Diagnostics, Inc.

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Dianna Cody  Modest, Speakers Bureau for Medical Technology Management Institute, Milwaukee, WI

Zubair Baloch  Consultant for Veracyte Inc.

Sydney Finkelstein  Employee of Red Path Integrated Pathology

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Er Chen  Consultant for bioTheranostics, Inc

Marianne Laouri  Consultant for bioTheranostics, Inc

Catherine Schnabel  Employee of bioTheranostics, Inc

Brock Schroeder  Employee of bioTheranostics, Inc

Mark Erlander  Employee of bioTheranostics, Inc

Sydney Finkelstein  Employee of Red Path Integrated Pathology

Gregory Tsongalis  Consultant and Grant/Research Support from Abbott-Vysis

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Alexander Lazar  Consultant and Grant/Research Support from Novartis

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Alexander Lazar  Consultant and Grant/Research Support from Novartis

Ilias Levis  Shareholder of Ikona Corporation

Sheila Mehri  Grant/Research Support from Agency for Healthcare Research and Quality

Suzanne Dintzis  Grant/Research Support from Agency for Healthcare Research and Quality

Jennie Stuijk  Grant/Research Support from Agency for Healthcare Research and Quality

Stephen Raab  Grant/Research Support from Agency for Healthcare Research and Quality

Gregory Kotnis  Grant/Research Support from Agency for Healthcare Research and Quality

Stephen Raab  Grant/Research Support from Agency for Healthcare Research and Quality

Jennie Stuijk  Grant/Research Support from Agency for Healthcare Research and Quality

Suzanne Dintzis  Grant/Research Support from Agency for Healthcare Research and Quality

Sheila Mehri  Grant/Research Support from Agency for Healthcare Research and Quality

Daniel Luff  Grant/Research Support from Agency for Healthcare Research and Quality

Heather Mack  Grant/Research Support from Agency for Healthcare Research and Quality

Ronald Weinstein  Consultant and Shareholder of Dmetrix, Inc., Apollo PACS, Inc., Ultraclinics, Inc.

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Charanjeev Singh  Employee of bioTheranostics, Inc.

Catherine Schnabel  Employee of bioTheranostics, Inc.
Mark Erlander  Employee of bioTheranostics, Inc.

Yi Zhang  Employee of bioTheranostics

Veena Singh  Employee of bioTheranostics, Inc.

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Ali Saad  Grant/Research Support from the CAP Foundation Telepathology grant, funded by Nikon (dated 30th January 2010).

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

Eugene Hsieh  Grant/Research Support from Roche

Andrea Grin  Grant/Research Support from Ventana, Roche

Catherine Streutker  Grant/Research Support from Ventana, Roche

Christine Brezden-Masley  Grant/Research Support from Roche

Catherine Streutker  Grant/Research Support from Ventana, Roche

Christine Brezden-Masley  Grant/Research Support from Ventana

Andrea Grin  Grant/Research Support from Ventana, Roche

Eugene Hsieh  Grant/Research Support from Roche

Qin Huang  Consultant for Synta pharmaceuticals, Inc.; Spouse is employee of Synta pharmaceuticals, Inc.

Qin Huang  Consultant for Synta pharmaceuticals, Inc.; Spouse is employee of Synta pharmaceuticals, Inc.

Catherine Streutker  Grant/Research Support from Ventana, Roche

Mary Levy  Employee and minority equity option holder of Caris Life Sciences

Baiashali Bhattacharya  Employee and minority equity option holder of Caris Life Sciences

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

Esmeralda Marginean  Educational Grant from Novartis

W Edward Highsmith  Shareholder of Sequenom

Catherine Streutker  Grant/Research Support from Ventana, Roche

Catherine Streutker  Grant/Research Support from Ventana, Roche

Eugene Hsieh  Grant/Research Support from Roche

Margaret Gulley  Consultant for McKesson, Roche Molecular Systems, and Abbott Laboratories; Clinical advisory board of Generation Health.

Jennifer Ziskin  Former employee of Genentech Inc.

William Forrest  Employee of Genentech Inc.

Hartmut Koeppen  Employee of Genentech

Adrian Jubb  Employee of Genentech

Debra Dunlap  Employee of Genentech Inc.

Muran Yaylaoglu  Employee of Genentech

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

Peter Illei  Consultant for Genetech & Leica Microsystems

Zi Hua Yang  Grant/Research Support from Myriad

Daniel Berney  Grant/Research Support from Myriad Genetics

Sak Kudahetti  Grant/Research Support from Myriad

Christopher Foster  Grant/Research Support from Myriad

Henrik Möller  Grant/Research Support from Myriad

Jack Cuzick  Grant/Research Support from Myriad

Kelly Christopherson  Employee of Ventana Medical Systems and Roche Tissue Diagnostics

Arul Chinnaiyan  Consultant for Gen-Probe. Co-author on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Scott Tomlins  Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Connie Cortez  Employee of Ventana Medical Systems, Inc

Scott Tomlins  Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Kelly Christopherson  Employee of bioTheranostics, Inc

Connie Cortez  Employee of bioTheranostics, Inc

Albert Dobi  Co-inventor of the anti-ERG antibody, clone 9FY, licensed by Biocare Medical Inc.

Grant Stewart  Educational Speaker for Pfizer

Thomas Powles  Grant/Research Support from Pfizer

Axel Bex  Grant/Research Support from Pfizer

Daniel Berney  Grant/Research Support from Myriad Genetics

Daniel Berney  Grant/Research Support from Myriad Genetics

Tara Maddala  Employee of Genomic Health

Carl Millward  Employee of Genomic Health, Inc.

Mark Lee  Employee and Shareholder of Genomic Health, Inc

Diana Cherbavaz  Employee of Genomic Health, Inc.

Eran Goren  Employee of Rosetta Genomics Ltd.

Ilanit Burnstein  Employee of Rosetta Genomics Ltd.
Eti Meiri  Employee of Rosetta Genomics Ltd.

Irit Krivitsky  Employee of Rosetta Genomics Ltd.

Merav Zepeniuk  Employee of Rosetta Genomics Ltd.

Nir Dromi  Employee of Rosetta Genomics Ltd.

Yael Spector  Employee of Rosetta Genomics Ltd.

Yaron Goren  Employee of Rosetta Genomics Ltd.

Shai Rosenwald  Employee of Rosetta Genomics Ltd.

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

Peter Illei  Consultant for Genetech & Leica Microsystems

James Monaco  Co-founder and majority stake holder in Ibris Inc.

Anant Madabhushi  Co-founder , President, employee, and majority stake holder in Ibris Inc.; majority stakeholder in vascuVis Inc.

Jack Cuzick  Grant/Research Support from Myriad

Peter Scardino  Grant/Research Support from Myriad

Henrik Moller  Grant/Research Support from Myriad

Zi Yang  Grant/Research Support from Myriad

Christopher Foster  Grant/Research Support from Myriad

Arul Chinnaiyan  Consultant for Gen-Probe. Co-author on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Celia Marginean  Educational Grant from Novartis

Jonathan McDunn  Employee of Metabolon, Inc

Bruce Neri  Employee of Metabolon, Inc.

David Tacha  Employee of Biocare Medical

Jeffrey Ross  Consultant and Grant/Research Support from Foundation Medicine, Inc.

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David Tacha  Employee of Biocare Medical

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Arul Chinnaiyan  Consultant for Gen-Probe. Co-author on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Ding Zhou  Employee of Biocare Medical

Ryan Bremer  Employee of Biocare Medical

David Tacha  Employee of Biocare Medical

Ryan Bremer  Employee of Biocare Medical

David Tacha  Employee of Biocare Medical

Charlie Yu  Employee of Biocare Medical

Daniel Berney  Grant/Research Support from Myriad Genetics

Arul Chinnaiyan  Consultant for Gen-Probe and cofounder of Compendia Biosciences. Co-inventor on UM patent for the detection of ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Scott Tomlins  Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Brian Rubin  Speakers Bureau and developer of educational materials relating to the diagnosis of gastrointestinal stromal tumor for Novartis

John Wei  Consultant for Gen-Probe. Gen-Probe has provided material support for a clinical trial evaluating PCA3, on which I am the PI.

Scott Tomlins  Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Arul Chinnaiyan  Consultant for Gen-Probe. Co-author on UM patent for the detection of ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

David Tacha  Employee of Biocare Medical

Thomas Haas  Consultant for Biocare Medical and employee of Mercy Health Systems

Charlie Yu  Employee of Biocare Medical

Ryan Bremer  Employee of Biocare Medical

Ekaterina Pestova  Employee of Abbott Molecular, Inc.

Xingyong Wu  Employee and Shareholder of Advanced Cell Diagnostics, Inc.

Yuling Luo  Employee and Shareholder of Advanced Cell Diagnostics, Inc.

Xiao-Jun Ma  Employee and Shareholder of Advanced Cell Diagnostics, Inc.

Alan Ashworth  Patents held jointly with KuDOS–AstraZeneca through the Institute of Cancer Research 'rewards to inventors' scheme.
Christopher Lord
Patents held jointly with KuDOS–AstraZeneca through the Institute of Cancer Research 'rewards to inventors' scheme.

Brigitte Ronnett
A reagent used in this study (p16) is manufactured by Roche MTM laboratories AG, and Educational Speaker honoraria from Roche MTM laboratories AG.

Dora Dias-Santagata
Consultant for BioReference Laboratories Inc.
Darrell Borger
Consultant for BioReference Laboratories Inc.
John Iafrate
Consultant for Pfizer
Brigitte Ronnett
A reagent used in this study (p16) is manufactured by Roche MTM laboratories AG, and Educational Speaker honoraria from Roche MTM laboratories AG.

Pradip Manna
Employee of Physicians Reference Laboratory
Shaheen Ahmed
Employee of Physicians Reference Laboratory
Paul Munyer
Employee of Physicians Reference Laboratory
Spencer Kerley
Employee of Physicians Reference Laboratory
Virginia LiVolsi
Consultant for Veracyte Inc
Catherine Behrens
Employee of Roche Molecular Systems
Arundhati Rao
Clinical Trial Participant for Roche Diagnostics
Stephen Young
Clinical Trial Participant for Roche Diagnostics
Barbara Body
Employee of LabCorp
Carol Eisenhunt
Employee of DCL
Abha Sharma
Employee of Roche Molecular Systems
Jeffrey Ross
Consultant and Grant/Research Support from Foundation Medicine, Inc.
Anthony Iafrate
Consultant for Pfizer
Virginia LiVolsi
Consultant for Veracyte Inc
Yuling Luo
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Xiao-Jun Ma
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
John Flanagan
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Yuling Luo
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Jingqin Luo
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Xiao-Jun Ma
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Hongwei Wang
Employee of Advanced Cell Diagnostics, Inc.
Gregory Tsongalis
Consultant and Grant/Research Support from Abbott-Vysis
Yuling Luo
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Xiao-Jun Ma
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Hongwei Wang
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Brian Rubin
Speakers Bureau and developer of educational materials relating to the diagnosis of gastrointestinal stromal tumor for Novartis
Raymond Tubbs
Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.
Brent Wood
Grant/Research Support from Becton-Dickinson
Robert Konrad
Employee of Eli Lilly and Company
Bradley Ackermann
Employee of Eli Lilly and Company
Timothy Holzer
Employee of Eli Lilly and Company
Andrew Schade
Employee of Eli Lilly and Company
Angie Fulford
Employee of Eli Lilly and Company
Aejaz Nasir
Employee of Eli Lilly and Company
Janet Grondin
Employee of Eli Lilly and Company
Lisa Ma
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
Igor Pavlov
Employee of ARUP
Sa Wang
Grant/Research Support from Seattle Genetics
Tracy George
Consultant for Novartis Pharmaceuticals
Sa Wang
Grant/Research Support from Seattle Genetics
A Iafrate
Consultant for Pfizer
Sa Wang
Grant/Research Support from Seattle Genetics
Yue Wu
Employee and Shareholder of Advanced Cell Diagnostics, Inc.
James Monaco
Co-founder and majority stake holder in Ibris Inc
Anand Lagoo
Lecturer for Novartis Corporation
Joseph Moore
Consultant for Novartis Corporation
Gregory Tsongalis
Consultant and Grant/Research Support from Novartis
Sa Wang
Grant/Research Support from Seattle Genetics
John Leonard
Consultant for Pharmacycys Inc.
Joseph Buggy
Employee of Pharmacycys Inc.
Sa Wang
Grant/Research Support from Seattle Genetics
Jeffrey Fine
Grant/Research Support from Omnyx
Shree Sharma
Grant/Research Support from the CAP Foundation Telepathology grant, funded by Nikon ( dated 30th January 2010).
Ali Saad
Grant/Research Support from the CAP Foundation Telepathology grant, funded by Nikon ( dated 30th January 2010).
Murat Gokden  Grant/Research Support from the CAP Foundation Telepathology grant, funded by Nikon (dated 30th January 2010).

Jonhan Ho  Grant/Research Support from Omnyx

David Tacha  Employee of BioCare Medical

Anthony Coury  Software Developer of Electronic Body Management Database Application for St John Providence Health System

Jeffrey Fine  Grant/Research Support from Omnyx

Joel Schuman  Intellectual property licensed by the University of Pittsburgh to Bioptigen, and has received royalties for intellectual property licensed by Massachusetts Institute of Technology to Carl Zeiss Meditec.

Curtis Stratman  Employee of Omnyx

Jonhan Ho  Grant/Research Support from Omnyx

Paul Weinreb  Employee of Biogen Idec Inc

Shelia Violette  Employee of Stermedex Inc

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Clifford Hoyt  Employee of Caliper Life Sciences

James Mansfield  Employee of Caliper Life Sciences

Vigina LiVolSi  Consultant for Veracyte Inc

Arie Perry  Royalties from Elsevier for textbook entitled "Practical Surgical Neuropathology"

Ali Saad  Grant/Research Support from the CAP Foundation Telepathology grant, funded by Nikon (dated 30th January 2010).

Arie Perry  Royalties from Elsevier for textbook entitled "Practical Surgical Neuropathology"

Timothy Vollmer  Consultant and Grant/Research Support from Biogen Idec, Daiichi Sankyo, Eli Lilly, Hoffman-LaRoche, Teva, Xenop, EMD Serono, Genzyme, Novartis, Ono, Sanofi Aventis, Consortium of MS Centers, Global Prairie, Guidepoint Global, Medical Logix, MSDx Prime Education, Projects in Knowledge

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Raymond Tubbs  Grant/Research Support, speaker honoraria, and scientific advisory board for Ventana Medical systems; nondependent daughter is an employee.

Ralph Hruban  Royalties from Myriad Genetics

Ralph Hruban  Potential royalties for the PALB2 invention from Myriad Genetics

Anthony Iafrate  Consultant for Pfizer

Ralph Hruban  Potential royalties for the PALB2 invention from Myriad Genetics

Garrett Frampton  Employee and Shareholder of Foundation Medicine, Inc.

Doron Lipson  Employee, Shareholder, and stock option holder of Foundation Medicine, Inc.

Philip Stephens  Employee and Shareholder of Foundation Medicine, Inc.

Maureen Cronin  Employee of Foundation Medicine, Inc.

Roman Yelensky  Employee of Foundation Medicine, Inc.

Mark Erlander  Employee of biotheranostics, Inc.

Veena Singh  Employee of bioTheranostics, Inc.

Yi Zhang  Employee of bioTheranostics

Catherine Schnabel  Employee of bioTheranostics, Inc.

Francois Le Loarer  Grant/Research Support from Roche

Lawrence Weiss  Employee of Clariant! A GE Healthcare Co. and consultant to Pathwork and Biotheranostics

Lawrence Weiss  Employee of Clariant! A GE Healthcare Co. and consultant to Pathwork and Biotheranostics

Sidney Finkenstein  Employee of Redpath Integrated Pathology, Inc.; Pittsburgh, PA

Lahav Cohen  Employee of Rosetta Genomics Ltd.

Alexander Faerman  Employee of Rosetta Genomics Ltd.

Danit Lebanony  Employee of Rosetta Genomics Ltd.

Mats Sanden  Employee of Rosetta Genomics Inc

Briania St. Cyr  Employee of Rosetta Genomics Inc

Arul Chinnaiyan  Consultant for Gen-Probe and cofounder of Compendia Biosciences. Co-inventor on UM patent for the detection of ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Daniel Rhodes  Co-founder of Compendia Biosciences, which licensed Omconline from UM. Co-inventor on UM patent for the detection of ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Scott Tomlins  Consultant for Compendia Biosciences and Cougar Biotechnology, and honoraria from Ventana. Co-inventor on UM patent for ETS gene fusions; diagnostic field of use has been licensed to Gen-Probe and Ventana.

Ralph Hruban  Potential royalties for the PALB2 invention from Myriad Genetics

Arundhati Rao  Clinical Trial Participant for Roche Diagnostics

Richard Poulsom  Honorarium as a Journal Deputy Editor for Wiley-Blackwell

Janet Grondin  Employee of Eli Lilly and Company

Robert Konrad  Employee of Eli Lilly and Company

Angie Fulford  Employee of Eli Lilly and Company

Andrew Schade  Employee of Eli Lilly and Company

Timothy Holzer  Employee of Eli Lilly and Company

Bharvin Patel  Employee of Eli Lilly and Company
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<th>Name</th>
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<tbody>
<tr>
<td>2152</td>
<td>Doron Lipson</td>
<td>Employee, Shareholder, and stock option holder of Foundation Medicine, Inc.</td>
</tr>
<tr>
<td>2152</td>
<td>Mirna Jarosz</td>
<td>Employee of Foundation Medicine, Inc.</td>
</tr>
<tr>
<td>2152</td>
<td>Alex Parker</td>
<td>Employee of Foundation Medicine, Inc.</td>
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<td>2152</td>
<td>Gary Palmer</td>
<td>Employee of Foundation Medicine, Inc.</td>
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<td>Sean Downing</td>
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<td>Roman Yelensky</td>
<td>Employee of Foundation Medicine, Inc.</td>
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<td>2153</td>
<td>Mark Erlander</td>
<td>Employee of bioTheranostics, Inc.</td>
</tr>
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<td>2158</td>
<td>Azorides Morales</td>
<td>Grant/Research Support from Sakura Finetek, USA; part of University of Miami royalties from patents that it licensed to Sakura Finetek</td>
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<td>2158</td>
<td>Steven Vernon</td>
<td>Workshop participant with Sakura Finetek</td>
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<td>2158</td>
<td>David Rimm</td>
<td>Consultant and Shareholder of HistoRx</td>
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<td>2162</td>
<td>Kristin Lane</td>
<td>Employee of Caliper Life Sciences</td>
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<td>2162</td>
<td>Clifford Hoyt</td>
<td>Employee of Caliper Life Sciences</td>
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<td>Hartmut Koeppen</td>
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<td>Murat Yaylaoglu</td>
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<td>2165</td>
<td>Scot Liu</td>
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<td>Bronislawa Petryniak</td>
<td>Employee of Genentech</td>
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<td>2165</td>
<td>Adrian Jubb</td>
<td>Employee of Genentech</td>
</tr>
<tr>
<td>2165</td>
<td>Nianfeng Ge</td>
<td>Employee of Genentech</td>
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</tbody>
</table>
### Housestaff Fellowship Fair – Participating Institutions

5:30 – 7:30 PM, Sunday, March 18\textsuperscript{th} – Convention Centre Ballroom D

<table>
<thead>
<tr>
<th>Institution</th>
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<tr>
<td>Albert Einstein Col. of Med./Montefiore Medical Centr</td>
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<td>PathologyOutlines.com, Inc.</td>
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<td>The George Washington University Medical Center</td>
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<td>The Ohio State University</td>
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<td>University of Alabama at Birmingham</td>
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<td>Washington University in St. Louis</td>
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Housestaff Hospitality Room

Convention Centre 118-120
7:00 AM - 3:00 PM, Monday - Tuesday

Continental breakfast (7:00 - 8:00 AM) and a light buffet lunch (12:00 - 1:00 PM) for Housestaff only will be available on a first-come first-served basis (food will not be replenished). Many distinguished pathologists have agreed to be available in the Housestaff Hospitality Room at these times. This is be a great opportunity to meet renowned pathologists and talk with them on a one to one basis. They will be pleased to chat informally with housestaff regarding career choices or other pathology-related issues.

Our Residency Advisory Committee and Membership Committee have recommended that we give you the opportunity for a more focused experience during the breakfast and lunch hours listed below. Therefore, this year we will have topic-related round-table discussions available to cover topics relating to Pathology training issues to include Boards and MOC; preparing for success in academic practice; preparing for success in private practice; sub-specialty practice/fellowship advice.

The room will only be staffed at the times listed below, but will remain open all day if you want a quiet place to relax and regroup. Coffee and soft drinks will be available throughout the day.

A RED DOT on your name tag will identify you as a Housestaff participant and you must show your name tag to be admitted to this room.

SCHEDULE FOR HOSPITALITY ROOM

Monday, March 19th

Breakfast - 7:00 - 8:00 AM:
Drs. Maria Picken, Teri Longacre, Jeffrey Ross, Jonathan Epstein, Steven Swerdlow, Paul Swanson, Laura Collins, Oleksandr Kryvenko, Rebecca Johnson, Marie Robert, Jesse McKenney, Christina Isacson and Tarik Elsheikh

Lunch - 12:00 - 1:00 PM:
Drs. Tarik Tihan, Adekunle Adesina, Kenneth Iczkowski, Gregory Fuller, Christopher Otis, L. Walden Browne, Thomas Krausz, Ryan Gill, Amy Adams, Fred Silva, Wendy Frankel

Tuesday, March 20th

Breakfast - 7:00 - 8:00 AM:
Drs. Tarik Tihan, Maria Picken, Rebecca Baergen, Ryan Gill, Ricardo Lloyd, Jesse McKenney, Christopher Crum, Barry DeYoung, L. Walden Browne, Rebecca Johnson, Marie Robert, Christina Isacson

Lunch - 12:00 - 1:00 PM:
Drs. Linda Ferrell, Pei Hui, Bita V. Naini, Rondell Graham, Amy Chadburn, Oleksandr Kryvenko, Christopher Otis, Christopher Crum, Fred Silva, Christina Isacson

Others will drop by from time to time.
Resident’s Workshop
Leadership, Collaboration, and Change in Health Care: A Resident's Workshop for Essential Skills
Saturday, March 17, 2012, 8:00 AM – 5:00 PM
Convention Centre 116-117

Course Directors: Carol Farver, MD, MS, Cleveland Clinic, Cleveland, OH
Phyllis Huettner, MD, Washington University, St Louis, MO
James Stoller, MD, MS, Cleveland Clinic, Cleveland, OH

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.

8:00 AM Leadership, Collaboration and Health Care: The Tools Physicians Need To Lead  Carol Farver, MD, MS, and James K. Stoller, MD, Cleveland Clinic, Cleveland, OH
- 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 AM The New Physician Leader: Basic Survival Skills  Phyllis Huettner, MD, Washington University, St Louis, MO
- 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 AM Building an Effective Health Care Team  James Stoller, MD, MS, and Carol F. Farver, MD, Cleveland Clinic, Cleveland, OH
- 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 PM Working Lunch and Networking Opportunities—Convention Centre 114-115

1:00 PM How Health Care Organizations ‘Learn’ and Improve  Lisa M. Yerian, MD, Cleveland Clinic, Cleveland, OH
- 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 PM Making Change in Your Health Care Organization: The Basic Strategies  Richard J. Zarbo, MD, Henry Ford Hospital, Detroit, MI
- 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 PM Break

3:15 PM Identifying and Resolving Conflict: Effective Tools for Tomorrow’s Leaders  Carol F. Farver, MD, Cleveland Clinic, Cleveland, OH, and Phyllis C. Huettner, MD, Washington University, St Louis, MO
- 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 PM Leading Health Care Organizations (Q and A with USCAP Leader on ‘Real World’ Experience of Leading Health Organizations  James M. Crawford, MD, PhD, North Shore University Hospital and LIJ Medical Center, Manhasset, NY

6:00 – 8:00 PM Reception – Room 119
The USCAP is hosting a reception for Residents who registered for and attended the Resident’s Workshop. USCAP Leadership and other luminaries in the field of pathology will also be in attendance. This reception provides a great opportunity to interact with various leaders in pathology in a casual and private setting.
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

7:00 PM Opening Remarks: The Historic 101st Annual Meeting
Gregory N. Fuller, MD, PhD, MD Anderson Cancer Center, Houston, TX

7:10 PM Virtual Diagnostics in Surgical Pathology — Sylvia L. Asa, MD, University Health Network, Toronto, ON, Canada

7:50 PM Molecular Diagnosis of Diffuse Gliomas — Craig M. Horbinski, MD, PhD, University of Kentucky, Lexington, KY

8:30 PM Recent Advances in Medulloblastoma and Pilocytic Astrocytoma — Daniel J. Brat, MD, PhD, Emory University Hospital, Atlanta, GA

9:10 PM Surgical and Molecular Diagnosis of Peripheral Nerve Sheath Tumors — Arie Perry, MD, University of California, San Francisco, San Francisco, CA

The topics chosen for the 2012 USCAP-AANP CSM reflect new paradigms of daily practice of surgical neuropathology. Two main topics will be discussed in the meeting. The large demand of intra-operative consultations in surgical neuropathology, in particular in cases of stereotactic biopsies, has increased the need for on-site neuropathologists. Remote telepathology has been introduced in institutions with several surgical sites as an alternative to on-site specialized surgical pathologists.

The first objective of our symposium is to discuss the current experience, pros and cons of virtual diagnostics in surgical pathology. Recent knowledge of molecular genetics of nervous system tumors has generated abundant data on the mechanisms of nervous system tumorigenesis and their potential use for targeted therapy. The second objective of the symposium is to update the surgical pathologist on the relevant and practical aspects of molecular diagnosis of most common nervous system tumors including gliomas, medulloblastomas and peripheral nerve sheath tumors.

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American Association of Ophthalmic Oncologists and Pathologists
Saturday, March 17, 2012
7:00 – 10:00 PM
Convention Centre 223-224

UPDATE ON MOLECULAR MECHANISMS RELEVANT TO ORBITAL PATHOLOGY

Moderator: Valerie A. White, Vancouver General Hospital, Vancouver, BC, Canada

7:00 PM Introduction — Valerie A. White, MD, Vancouver General Hospital, Vancouver, BC, Canada

7:05 PM Update on Inflammatory Mechanisms Pertinent to Orbital Disease — Victor M. Elner, MD, University of Michigan-Kellogg Eye Center, Ann Arbor, MI

7:35 PM Update on Molecular Pathology of Ocular Adnexal Lymphomas — Graham W. Slack, MD, British Columbia Cancer Agency, Vancouver, BC, Canada

8:05 PM Update on Molecular Mechanisms in Sarcomas That Occur in the Orbit — Tatyana Milman, MD, New York Eye & Ear Infirmary, New York, NY

8:35 PM Update on Molecular Pathology in Lacrimal/Salivary Gland Tumors — Valerie A. White, MD, Vancouver General Hospital, Vancouver, BC, Canada

9:05 PM Update on Molecular Pathology of Optic Nerve Tumors — Fausto J. Rodriguez, MD, Johns Hopkins University, Baltimore, MD

9:35 PM Panel Discussion, Question and Answer Period

The topic was selected by the USCAP Companion Meeting three member committee from the American Association of Ophthalmic Oncologists and Pathologists (AAOOP) because of the current importance of molecular pathology of orbital tumors and the impact in oncology practice both for diagnosis and prognostication. Due to the volume of new information in each of these fields and the minimal exposure that members of the AAOOP and USCAP may have to these areas, it is important to review these topics at regular intervals to keep abreast of new developments and to determine if new information should be incorporated into current diagnostic and prognostic protocols.

The objectives of the companion meeting are to provide an update on specific topics that occur commonly in the orbit and for which new and exciting molecular pathogenetic information has become available. Dr. Victor Elner will update us on new mechanisms to allow better classification of types of orbital inflammation and those that may be relevant for targeted therapy. Dr. Graham Slack will update us on the new developments in lymphomas with particular reference to those affecting the ocular adexa. Sarcomas of the orbit are rare and Dr. Tatyana Milman will review the molecular pathology of those tumors. Dr. Val White will review the new developments in the molecular pathology of salivary gland tumors as they pertain to those occurring in the lacrimal gland. Finally Dr. Fausto Rodriguez will discuss new developments in optic nerve tumors paralleling the new findings on those occurring in the brain.
American College of Veterinary Pathologists  
Saturday, March 17, 2012  
7:00 – 10:00 PM  
Convention Centre 215  

VETERINARY NEOPLASIA: ONE MEDICINE AT THE DIAGNOSTIC LEVEL  

Moderator: John M. Cullen, North Carolina State University, Raleigh, NC  
7:00 PM Lymphoma and the One Health Paradigm – Luke Borst, North Carolina State University College of Veterinary Medicine, Raleigh, NC  
7:40 PM Diverse Presentations of Papillomavirus Infections in Animals – Keith Linder, North Carolina State University College of Veterinary Medicine, Raleigh, NC  
8:20 PM Advances in Molecular Pathology for the Diagnosis and Prognosis of Canine Cancer: A Comparative Review – Matti Kiupel, Michigan State University, Lansing, MI  
9:00 PM Question and Answer Session  

This is the inaugural opportunity for the American College of Veterinary Pathologists (ACVP) to participate as a Companion society. The moderator of this session in consultation with the Council of the ACVP selected a topic that we believed would have broad comparative interest and demonstrate the similarities and dissimilarities between various neoplasms in companion animals and in humans. Part of the symposium will be devoted to advances in molecular diagnostics that would be suitable for biopsy or autopsy cases. Because of significant interest in the role of papillomaviruses in cervical carcinoma an overview of the spectrum of proliferative disorders in a variety of animal species will be presented.  

Association for Pathology Informatics  
Saturday, March 17, 2012  
7:00 – 10:00 PM  
Convention Centre 205-207  

PATHOLOGY INFORMATICS: AN EVOLVING SUB-SPECIALTY WITH DIRECT IMPACT ON THE CONTINUUM OF PATIENT CARE  

Moderator: John Gilbertson, Massachusetts General Hospital, Boston, MA  
7:00 PM Introduction – John Gilbertson, MD, Massachusetts General Hospital, Boston, MA  
7:20 PM Automating Anatomic Pathology – Mark Tuthill, MD, Henry Ford Hospital, Detroit, MI  
7:50 PM Digital Pathology and Patient Care – Ulysses Balis, MD, University of Michigan Health System, Ann Arbor, MI  
8:20 PM Identifying Our Patients Before We Diagnose or Treat Them – Raymond D. Aller, MD, University of Southern California, Vista, CA  
8:50 PM Utility of Synoptic Data Entry for Molecular, Cytogenetics and FISH Laboratories – Alexis B. Carter, MD, Emory University Hospital, Atlanta, GA  
9:20 PM Pathology Informatics Curriculum for Pathology Residents - The Association of Pathology Informatics Model – Ronald S. Weinstein, MD, The Arizona Health Sciences Center, Tucson, AZ  

2012 will mark the first time that the Association of Pathology Informatics (API) will present a companion conference at USCAP. The topic “Pathology Informatics: An Evolving Sub-Specialty with Direct Impact on the Continuum of Patient Care” was chosen by API Program Committee and Training and Education Committee because Pathology Informatics is the study of information, information systems and processes in pathology and as such impacts a wide range of activities in pathology diagnostics, operations, teaching and research. The goal of the symposium is to present a range of pathology informatics sub-specialties (automation, imaging, patient safety, information management) in the context of the clinical practice of anatomic, clinical and molecular pathology so that attendees can understand and apply these approaches in their practices. Part of the session will be dedicated to pathology informatics training including approaches to residency training in informatics, fellowship opportunities and the potential for ACGME certification of clinical informatics as sub-specialty.
MINIMIZING GRAY ZONES IN DIAGNOSIS OF ENDOCRINE LESIONS

Moderators: Georgios Kontogeorgos, Athens General Hospital, Athens, Greece and Vania Nose, University of Miami School of Medicine, Miami, FL

7:00 PM Diagnostic Dilemmas in Adrenal Hyperplasia/Adenoma/Carcinoma – Anne M. McNicol, MD, UQCCR, Royal Brisbane and Women's Hospital, Herston, Brisbane, Australia

7:40 PM Interphase Among Normal, Hyperplastic and Neoplastic Parathyroids – A Modern Approach – Virginia A. LiVolsi, MD, University of Pennsylvania, Philadelphia, PA

8:20 PM Overlapping of Neuroendocrine Hyperplasia/Tumor/Carcinoma – Guenter Kloeppel, MD, Technische Universitat Munchen, Klinikum rechts der Isar, Munchen, Deutschland

9:00 PM Morphologic and Molecular Gray Zones in Thyroid Proliferative Disorders – Sylvia L. Asa, MD, University of Toronto, Toronto, ON, Canada

9:40 PM General Discussion

The topic was selected because it is well known that some Endocrine Pathology lesions are difficult to diagnose as there is an overlapping in the sequence of normal parenchyma/hyperplasia/adenoma/carcinoma. In some instances there are lesions that by morphology and even by molecular techniques are morphologically similar, which may represent normal elements, hyperplastic conditions, benign, or malignant lesions. These “gray zones” in diagnosis of endocrine lesions represent a difficult and controversial task.

This symposium highlights problematic “gray zones” areas in the diagnosis of adrenal, thyroid, parathyroid and gastroenteropancreatic pathology, formulates a differential diagnosis, and discusses the histological characteristics and molecular markers of the endocrine lesions. This will provide clues leading to the identification of features that can helpful in the diagnosis of difficult endocrine lesions.

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International Society of Urological Pathology

Saturday, March 17, 2012

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

7:00 PM Introduction and President’s Remarks – Rodolfo Montironi, MD, Polytechnic University of The Marche Region, School of Medicine, Ancona, Italy

7:15 PM Update on Testis Pathology – Daniel M. Berney, FRCPa, Barts and the London NHS Trust, Barts Cancer Institute, St Bartholomews’ Hospital, London, UK

7:50 PM Update on Bladder Pathology – Hema Samaratunga, FRCPA, Aquesta Pathology and University of Queensland, Brisbane, Australia

8:25 PM Update on Prostate Pathology – Adeboye O. Osunkoya, MD, Emory University School of Medicine, Atlanta, GA

9:00 PM Use of Frozen Section in GU Pathology – Steven Shen, MD, PhD, The Methodist Hospital Physician Organization and Weill Cornell Medical College of Cornell University, Houston, TX

The topics for the symposium were determined by the President in consultation with the Executive Committee and the Annual Meeting Program Committee representing the general membership. The selection of topics takes into consideration previous companion meeting presentations, the needs of our society members and the general audience and the recent advances in the field of genitourinary pathology.

The current program aims to provide an update on recent advances in genitourinary pathology, with a focus on important and practical organ-specific topics and issues. A separate lecture will provide an update on the use of frozen section in genitourinary pathology. We hope that the program will offer a better understanding and recognition of the current diagnostic challenges in genitourinary pathology. This will allow for improved accuracy in diagnosis and prognosis of organ-specific genitourinary cancers.

The program will also cover recent advances and development in organ-specific genitourinary cancers and will provide directions to improve the current genitourinary cancer pathology practice. A separate topic, focusing on the use of frozen section in genitourinary pathology, will provide a broad overview and update on the current issues, challenges and directions pertaining to the use of frozen sections in the current genitourinary pathology practice.
Papanicolaou Society of Cytopathology in Coordination with American Society of Cytopathology
Saturday, March 17, 2012
7:00 – 10:00 PM
Convention Centre 220-222

DIAGNOSING LUNG CARCINOMA IN THE ERA OF PERSONALIZED MEDICINE:
CLINICAL, PATHOLOGIC, AND MOLECULAR ASPECTS

Moderator: Matthew A. Zarka, Mayo Clinic Arizona, Scottsdale, AZ

7:00 PM
Introduction – Matthew A. Zarka, MD, Mayo Clinic Arizona, Scottsdale, AZ

7:15 PM
Clinical Approach to Cytologic and Histologic Sampling in the Patient with Lung Cancer – Robert Viggiano, Mayo Clinic Arizona, Scottsdale, AZ

7:50 PM
Practical Approach to the Diagnosis and Management of Nonsmall Cell Lung Cancer Encountered in Limited Biopsy Samples (Transbronchial and Needle Core) – Kevin O. Leslie, MD, Mayo Clinic Arizona, Scottsdale, AZ

8:25 PM
Respiratory Tract Cytology: From Basic Morphology to Advanced Molecular – Kim R. Geisinger, MD, Wake Forest Baptist Medical Center, Winston-Salem, NC

9:00 PM
AMP-CAP-IASLC Guidelines for Molecular Testing of Lung Adenocarcinoma: Who To Test, Why To Test, and How To Test? – Neal Ian Lindeman, MD, Harvard Medical School, Boston, MA

9:35 PM
Question and Answer Session

The PSC and ASC solicited topics of interest from their membership at the annual business meetings. Several potential topics were discussed at the Executive Board meeting and the topic for the 2012 session was chosen in agreement with the chairs of the scientific program committees. Keeping abreast of the advantages and limitations of transbronchial biopsy and endobronchial ultrasound biopsy (EBUS) and subclassification of lung tumors based upon small tissue fragments and cytology is of high interest to the members of the PSC, particularly in a time when there have been recent advances in the categorization of lung tumors based upon new immunohistologic and molecular techniques. This new knowledge regarding the tumor biology of non-small lung cancers has prompted a new proposal to classify adenocarcinomas of the lung based upon the recent IASLC 2011 consensus publication. Choice of specific targeted therapies to lung cancers is dependent upon accurate subclassification of lung carcinomas.

Our needs assessment process was based on the evaluation of the current literature and the feedback provided by audience participating in our prior companion society sessions. The purpose and objectives of the program are as follows: 1) Provide a pathologists view of the clinical role of transbronchial biopsy and endobronchial ultrasound biopsy (EBUS) in the diagnosis and staging of lung carcinoma. 2) Highlight the practical approach of lung carcinoma with limited cytologic and histologic biopsy material. 3) Understand the sensitivity and specificity of the various cytologic techniques involved in the diagnosis of lung cancer, and the essential cytologic and histologic criteria required for the subclassification of lung tumors, including adenocarcinomas, based upon the new proposed IASLC 2011 consensus publication. 4) Describe the role of the molecular techniques in the diagnosis and prediction of response to therapy of lung adenocarcinoma based on small biopsy specimens.

Evaluations through the USCAP are required in order to obtain CME credit. We also will evaluate effectiveness by monitoring attendance and tracking the scope and breadth of questions and the evaluations of each speaker.
The Pulmonary Pathology Society recognizes significant changes are occurring regarding molecular testing of lung cancer, diagnosis and management of idiopathic pulmonary fibrosis and malignant mesothelioma. This symposium covers the first international comprehensive recommendation for molecular testing in lung carcinomas that represents a new standard in lung cancer diagnosis. A large spectrum of questions related to molecular testing will be addressed including tissue processing, methodology, results interpretation and standardized reporting. The symposium also covers the current state of knowledge regarding diagnosis and treatment of idiopathic pulmonary fibrosis. An update regarding histologic and molecular approach to diagnosis of malignant mesothelioma will be discussed.
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 & Women’s Hospital, Harvard Medical School, Boston, MA

8:30 AM Introduction – Christopher D. M. Fletcher, MD, FRCP, Brigham & Women’s Hospital, Boston, MA
Vania Nose, MD, PhD, University of Miami, Miami, FL
Jason L. Hornick, MD, PhD, Brigham & Women’s Hospital, Harvard Medical School, Boston, MA

8:35 AM President’s Award – Christopher D. M. Fletcher, MD, FRCP, Brigham & Women’s Hospital, Boston, MA

8:40 AM Familial Cancer Syndromes Involving the GI Tract – Joel Greenson, MD, University of Michigan, Ann Arbor, MI

9:20 AM Familial Cancer Syndromes Involving the Breast – Jorge Reis-Filho, MD, PhD, FRCP, Institute of Cancer Research, London, UK

9:40 AM Familial Cancer Syndromes Involving the Ovary – Christopher P. Crum, MD, Brigham & Women’s Hospital, Boston, MA

10:00 AM Break

10:30 AM Prize

10:40 AM Familial Cancer Syndromes Involving the Endocrine System – Sylvia Asa, MD, University of Toronto, Toronto, ON, Canada

11:20 AM Familial Cancer Syndromes Involving the Peripheral Nervous System – Cristina Antonescu, MD, Memorial Sloan-Kettering Cancer Center, New York, NY

11:40 AM Familial Cancer Syndromes Involving the Kidney – Jesse McKenney, MD, Stanford School of Medicine, Stanford, CA

The topic was chosen by the President, the Officers, the Committee members and the Co-Chairs of the Program Committee of the Arthur Purdy Stout Society because of the emerging knowledge of familial cancer syndromes and the crucial role of the surgical pathologist in diagnosing these syndromes.

Pathologists have played a pivotal role in recognizing genotypic-phenotypic correlations in families with hereditary cancer syndromes, leading to the identification of histological characteristics that can help predict the presence or absence of germline mutations of specific cancer predisposition genes.

This symposium will provide important paradigms in the study of the molecular basis of tumorigenesis and the identification of molecular mechanisms underlying inherited syndromes. In addition to providing an update of our current understanding of the pathologic manifestation of the important familial cancer syndromes in different organ systems, this symposium will also focus specifically on the role of the surgical pathologist, including a discussion of the pathologic features that should suggest specific syndromic associations, and what additional work-up might be appropriate either to diagnose such a syndrome or to provide other important prognostic or predictive information.
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

8:30 AM Overview of Diagnostic Approaches to Infectious Diseases – Sebastian B. Lucas, Guy’s King’s and St. Thomas Hospital, London, UK

8:50 AM Viral Pathogens and Impostors: Who’s Who in the Electron Microscope – Sara E. Miller, Duke University Medical Center, Durham, NC

9:25 AM Immunohistochemical Diagnosis of Infections – Danny A. Milner, MD, Brigham & Women’s Hospital and Harvard Medical School, Boston, MA

10:00 AM Break

10:30 AM The Role of In Situ Hybridization in the Diagnosis of Infectious Diseases – Kathleen Montone, MD, Hospital of the University of Pennsylvania, Philadelphia, PA

11:00 AM Molecular Diagnosis of Infectious Disorders – Gary Procop, MD, Cleveland Clinic, Cleveland, OH

11:40 AM Panel Discussion

Topics for SUP USCAP Companion Meetings are chosen by the Society’s Executive Committee with input from the Society’s membership. The 2012 meeting was planned in collaboration with the Binford-Dammin Society of Infectious Disease Pathologists. SUP’s participation in this joint session is based on the major ongoing role played by ultrastructural pathology in infectious disease diagnosis and discovery. The diagnosis of established infectious diseases and the identification of novel ones is a complex process that frequently requires a multidisciplinary approach. Our companion meeting will explore the relative strengths and shortcomings, as well of the synergies, of several major analytic methods. The program will provide an overview of the contributions of four major diagnostic/investigative modalities (electron microscopy, molecular microbiology, immunohistochemistry, and in situ hybridization) to the diagnosis and discovery of infectious diseases. Pitfalls and strengths of each subdiscipline will be explored.
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

8:30 AM Introduction – Terence J. Colgan, MD, Mt. Sinai Hospital, Toronto, ON, Canada
Jennifer L. Hunt, MD, University of Arkansas Medical Center, Little Rock, AR

8:40 AM Pre-Analytic Variables in Molecular Testing – Philip A. Branton, MD, National Cancer Institute, Rockville, MD

9:10 AM Carcinoma of Unknown Primary Site - Is Gene Expression Profiling the Way To Go – Federico A. Monzon, MD, Baylor College of Medicine, Houston, TX

9:40 AM Choosing the Right Molecular Test - Lessons from Colorectal Carcinoma – Alyssa M. Krasinskas, MD, University of Pittsburgh Medical Center, Pittsburgh, PA

10:10 AM Break

10:40 AM Genetic Profiling of Tumors for Systemic Therapy - Standard of Care or Passing Fad – Jorge Reis-Filho, MD, PhD, FRCP, The Institute of Cancer Research, London, UK

11:10 AM The Present and Future Avalanche of Molecular Testing - Build It or Buy It – Jeffrey A. Kant, MD, PhD, University of Pittsburgh Medical Center, Pittsburgh, PA

11:40 AM Final Question and Answer Session

The Curriculum Committee of the College of American Pathologists considers the list of past offerings, the current and evolving state of anatomic pathology, needs of the USCAP audience, and expert opinion in selecting the topic for the 2012 CAP Companion Society education program.

Genetic and molecular testing is moving out from the research and academic settings into widespread use throughout all communities. Such testing is becoming routine in some of the most common tumor sites and in carcinomas of unknown primary site. This development poses new challenges for the laboratory. The handling of all tissues must ensure that molecular and genetic testing can be performed accurately if needed later. Pathologists need to assess whether there are truly benefits to new proposed testing paradigms. If the test is deemed to be appropriate and worthwhile then the laboratory must decide whether to add the test to its own test menu, or send to a reference laboratory.

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Hans Popper Hepatopathology Society
Sunday, March 18, 2012
8:30 AM – 12:00 PM
Convention Centre Ballroom C

LIVER DISEASE UPDATE, 2012

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

8:30 AM Liver Neoplasms - Biology and Classification – Young Nyun Park, MD, PhD, University College of Medicine, Seoul, South Korea

9:15 AM Update on Liver Transplantation Pathology – Romil Saxena, MD, Indiana University College of Medicine, Indianapolis, IN

10:00 AM Break

10:30 AM Drug-Induced Liver Injury - A Clinical Perspective – Robert J. Fontana, MD, University of Michigan Medical Center, Ann Arbor, MI

11:15 AM The Pathology of Acute Liver Injury and Liver Failure – Jay Lefkowitch, MD, Columbia University, New York, NY

This topic was chosen by the executive committee of the Hans Popper Hepatopathology Society in order to address topics that are both challenging to pathologists as well as undergoing revision and reanalysis. The first half of the symposium will address the topics of hepatic neoplasms and liver transplantation. The discussion of liver neoplasms will focus on updating pathologists on the current WHO classification as well as new diagnostic tools and discoveries in pathogenesis. The second talk will focus on new developments in post-transplantation complications including rejection and autoimmune disease. The second half of the symposium will focus on topics that are both diagnostically challenging and critical for acute patient care. We will hear first from a clinician experienced in drug-induced liver injury who will cover both the critical issues in determining the specific cause of the injury as well as the role of the liver biopsy in this process. Finally we will hear what liver pathology can tell us about the etiology, mechanism and prognosis in acute liver failure as well as what can be learned from evidence of regeneration and repair.

The objective of the symposium is to bring pathologists up-to-date on the new development in these critical areas of hepatic pathology.
RENAL FIBROSIS

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

8:30 AM Renal Fibrosis: What? How Much? Why? Diagnostic/Pathogenetic Features, Quantification, and Clinicopathologic Implications – Alton B. Farris III, MD, Emory University, Atlanta, GA

9:15 AM Renal Fibroblasts: Origins, Activation and Their Role in Renal Fibrosis – Youhua Liu, University of Pittsburgh, Pittsburgh, PA

10:00 AM Break

10:30 AM Role of Microcirculation in the Pathogenesis of Kidney Fibrosis – Banu Sis, MD, University of Alberta, Edmonton, AB, Canada

11:15 AM Inflammation and Fibrosis-Interactions and Impact on the Kidney – Agnes Fogo, MD, Vanderbilt University Medical Center, Nashville, TN

The topic for this symposium is renal fibrosis. This topic is selected by the Program Committee of the Renal Pathology Society with input from members of the Society. Renal fibrosis is a common change shared by renal diseases of diverse etiology and pathology. It is also an important element in the pathogenesis and progression of renal disease. There are recent exciting and novel findings in both the pathogenetic and clinical aspects of renal fibrosis. This symposium aims for a succinct but thorough review of the pathogenesis of renal fibrosis with special emphasis on the newer findings. This symposium also provides insights into the clinical utility in evaluating renal fibrosis in the context in renal biopsy interpretation.

ATHEROскЛEROSIS: 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

8:30 AM Pathobiology of Atherosclerosis – Michael A. Gimbrone, MD, Brigham and Women’s Hospital, Harvard Medical School, Boston, MA

9:00 AM Imaging Atherosclerosis In Vivo: The Quest for the Vulnerable Plaque – Brett Bouma, Massachusetts General Hospital, Massachusetts Institute of Technology, Boston, MA

9:30 AM Break

10:00 AM Cardiovascular Risk and Atherosclerosis Prevention – Jiri Frohlich, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada

10:30 AM Atherosclerosis Intervention: Stents and Restenosis – Robert Boone, MD, FRCPC, St. Paul’s Hospital, University of British Columbia, Vancouver, BC, Canada

11:00 AM New Insights into the Puzzling Pathogenesis of Calcific Aortic Stenosis – Avrum Gotlieb, MDCM, MaRS, University of Toronto, Toronto, ON, Canada

Atherosclerosis—and its sequelae in the coronary and cerebral circulations—remains the major cause of morbidity and mortality in industrialized countries; this, in the setting of remarkable progress in identifying risk factors and genetic associations, as well as developing diagnostic modalities and therapeutic interventions. Although there is an increasingly sophisticated view of the pathobiology, we still cannot prevent atherosclerosis, nor can we prognosticate or inhibit acute and potentially catastrophic plaque rupture. A more recent wrinkle is that the mechanisms that lead to vascular pathology in atherosclerosis may also underly calcific aortic valvular disease.

The Education Committee of the SCVP has therefore selected this topic because clinicians and pathologists alike encounter atherosclerosis and its manifestations on a daily basis. And although the pathogenesis and pathologic manifestations may seem to be well-established, there are several new developments—at all levels from endothelial cell biology to imaging and intervention—that merit a re-evaluation and update. To conclude, the session will be also be capped by the recipient of the SCVP Distinguished Achievement Award speaking on how calcific aortic valvular disease may be part of the larger atherosclerosis picture.

The objectives of the session are to present organizing principles for understanding the pathogenesis of atherosclerosis, and to highlight new developments and innovations in risk stratification, imaging (particularly identifying vulnerable plaque), and subsequent treatment.
SUNDAY AFTERNOON COMPANIONS
American Society of Dermatopathology
Sunday, March 18, 2012
1:30 – 5:00 PM
Convention Centre 205-207

Moderator: Victor G. Prieto, UT-MD Anderson Cancer Center, Houston, TX

1:30 PM  What Is New in Cutaneous Lymphoma? – Werner Kempf, MD, *Kempf und Pflatz Histologische Diagnostik, Zurich, Switzerland*

2:00 PM  New Adjuvant Therapies: Cutaneous Effects (MDACC) – Jonathan L. Curry, MD, *UT-MD Anderson Cancer Center, Houston, TX*


3:00 PM  Break

3:30 PM  What Is New in Adnexal Tumors of the Skin? – Omar Sangueza, MD, *Wake Forest University School of Medicine, Winston-Salem, NC*

4:00 PM  What Is New in Melanocytic Tumors? – Pedram Gerami, *Northwestern University, Chicago, IL*

4:30 PM  Discussion

The topic was chosen in a meeting of the Dermatopathology Section of Dermatopathology at MD Anderson Cancer Center to determine a unifying topic for an update course in dermatopathology. This course symposium will be primarily devoted to provided practical information to be applied to the day-to-day diagnosis of skin biopsies. The companion meeting will deal with new data related to the diagnosis and prognosis of cutaneous melanocytic lesions, cutaneous lymphomas, soft tissue tumors of the skin, and cutaneous adnexal tumors. Furthermore, from the exploding field of targeted therapy, the symposium will provide a discussion of the effects that these new medications induce in the skin.
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 – 5:00 PM
Convention Centre 223-224

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

1:30 PM Introduction – Mark E. Sobel, MD, PhD, American Society for Investigative Pathology, Bethesda, MD

1:35 PM Keeping up with the Next Generation: Perspectives on Massively Parallel Sequencing and Other New Technologies in Clinical Diagnostics – Wayne W. Grody, MD, PhD, UCLA School of Medicine, Los Angeles, CA

2:20 PM Surgical Pathologists and the Interpretation of Genomic Information in the New Era of Genomic Medicine – Karen L. Kaul, MD, PhD, NorthShore University Health System, Evanston, IL

3:00 PM Break

3:30 PM Laying the Groundwork for Personalized Genomic Studies – Madhuri R. Hegde, Emory University School of Medicine, Atlanta, GA

4:00 PM Why Shouldn’t Clinical Microbiologists Have Some Wholesome Whole-Genome Sequencing Fun – James M. Musser, MD, PhD, The Methodist Hospital Research Institute, Houston, TX

4:30 PM Pancreas Pathology in the Era of Whole Genome Sequencing – Ralph H. Hruban, MD, Johns Hopkins Medical Institutions, Baltimore, MD

The Companion Meetings of the American Society for Investigative Pathology (ASIP), American Society for Clinical Pathology (ASCP), and Association for Molecular Pathology (AMP) were jointly programmed and coordinated with the goal of introducing and exploring in depth the new sub-discipline of genomic pathology and how it will serve personalized genomic medicine. The three societies worked together to meet the challenge that is described in detail in Tonellato PJ et al: A national agenda for the future of pathology in personalized medicine: report of the proceedings of a meeting at the Banbury conference Center: genome-era pathology, precision diagnostics and pre-emptive care: a stakeholder summit. Am J Clin Pathol 2011, 135:668-672.

The topic of genomic pathology in clinical diagnostics was determined by the Councils and education-related committees/commissions of the three societies. Personalized genomic medicine will play an important role in future medical practice; however, physicians in general, and many pathologists are currently ill-equipped to meet the challenge because genomic pathology is a new field of discovery and much work needs to be done to educate practitioners about the potential promises and pitfalls of diagnostic, prognostic, and therapeutic applications of genomic pathology.

The first part of the joint program (ASIP Companion Meeting in the afternoon) introduces the field of genomic pathology and its technologic underpinnings. This will be followed by presentations focused on clinical and research applications in inherited diseases, cancer, and infectious diseases. The second part of the program (AMP and ASCP Companion Meetings in the evening) will focus on informatics systems to support personalized medicine and training residents in genomics. The joint program will end with an expert panel discussion about the promises and pitfalls of genomic information technologies. Ample time will be provided for questions from the audience.

The coordinated ASIP, AMP, and ASCP Companion Meetings are targeted to practicing pathologists and pathologists-in-training, as well as to molecular/genetic pathologists with the objectives of (1) providing education about next generation sequencing and other modern technologies and their potential applications to clinical diagnostics and therapeutics, and (2) offering resources for the training of residents and fellows.
History of Pathology Society  
Sunday, March 18, 2012  
3:30 – 5:00 PM  
Convention Centre 215

ADJUNCTIVE TECHNOLOGIES IN MORPHOLOGICAL PATHOLOGY:  
ADVANCES IN THE 20TH CENTURY

Moderator: Mark R. Wick, University of Virginia Hospital, Charlottesville, VA

3:30 PM  The Development of Histochemistry in the 20th Century – Mark R. Wick, MD, University of Virginia Hospital, Charlottesville, VA

3:50 PM  The History of Electron Microscopy as a Diagnostic Tool – Mark R. Wick, MD, University of Virginia Hospital, Charlottesville, VA

4:10 PM  Diagnostic Immunohistochemistry in the 20th Century – Mark R. Wick, MD, University of Virginia Hospital, Charlottesville, VA

4:30 PM  In-Situ Hybridization in Diagnostic Anatomic Pathology – Mark H. Stoler, MD, University of Virginia Health System, Charlottesville, VA

The topic for this year’s meeting was determined after a solicitation of ideas from the membership. Responses were collated and the subject of “twentieth-century advances in diagnostic anatomic pathology” prevailed. It was felt that an examination of technological developments between the years 1900 and 2000 would provide a valuable perspective on current practice patterns. Put another way, an assessment of the merits and limitations of “older” technologies can be used to identify optimal ways for implementing them in the year 2012 and beyond. At the completion of the program, participants will be able to outline the chronological evolution of methods in anatomic pathology that were developed to supplement morphological analysis. In addition, they will be able to identify the principal contributions in this topic area in the twentieth century, as well as the persons who made them. Finally, attendees will be able to judge the relative values of “old” technologies in the current practice of anatomic pathology.

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International Society of Bone and Soft Tissue Pathology  
Sunday, March 18, 2012  
1:30 – 5:00 PM  
Convention Centre 220-222

CURRENT TOPICS ON BONE AND SOFT TISSUE PATHOLOGY

Moderators: Shinichiro Ushigome, Jikei University School of Medicine, Tokyo and Keihin Medical Laboratory, Kawasaki, Japan and Michael J. Klein, Hospital for Special Surgery, New York, NY

1:30 PM  Molecular Pathology of Ewing’s Sarcoma: From Diagnosis and Target to Treatment – Enrique de Alava, MD, PhD, University Hospital Salamanca and Cancer Research Center, Salamanca, Spain

2:00 PM  Cartilaginous Tumors of Bone: How To Distinguish Benign and Malignant – Eiichi Konishi, Lecturer, Kyoto Prefectural University of Medicine, Kyoto, Japan

2:30 PM  Benign (Osteo-) Fibrous Tumors of Bone – Carrie Y. Inwards, MD, Mayo Clinic, Rochester, MN

3:00 PM  Break

3:30 PM  Vascular Tumors of the Skeletal System: Current Concepts of Classification and Diagnosis – Judith Bovee, MD, PhD, Leiden University Medical Center, Leiden, Netherlands

4:00 PM  Giant Cell Tumor of Bone: Molecular Mechanisms – Ramses Forsyth, MD, University Hospital Ghent, Ghent, Belgium

4:30 PM  Phosphaturic Mesenchymal Tumor: An Update – Yong-Koo Park, MD, PhD, Kyung-Hee University, Seoul, Korea

The theme and content of the meeting were chosen and approved by the Society’s officers, taking into account the need to pick a novel theme of both utility and interest to general surgical pathologists as well as subspecialists interested in soft tissue and bone tumors. Better prediction of clinical behavior as well as testing which enhances treatment selection are increasingly important for preferred multidisciplinary approach to the care of patients with bone tumors. The relative value of the contributions from morphology, immunohistochemistry and molecular genetics continue to evolve. This companion meeting will seek to provide an overview of current topics on bone tumors.
**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

**1:30 PM**

**Putative Precursor Lesions of High-Grade Serous Carcinoma Including STIC, p53 Signature and SCOUT** – Christopher P. Crum, MD, Brigham & Women’s Hospital, Boston, MA

**2:10 PM**

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

**2:50 PM**

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

**3:00 PM**

**Break**

**3:30 PM**

**The Mullerian Origin of Ovarian Tumors** – Elvio Silva, MD, MD Anderson Cancer Center, Houston, TX

**4:10 PM**

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

**4:50 PM**

**Questions and Answer**

The topic was chosen following discussion by the executive committee of the Society. There have been considerable recent advances in our understanding of the origins of ovarian carcinoma. In particular, the evidence that many ovarian serous carcinomas arise from Fallopian tube epithelium may alter clinical practice. This symposium will bring delegates up to date through discussion of recent clinic-pathologic and molecular data on serous tumors and their implications for surgical and pathologic practice. This will be followed in 2013 by a symposium on other epithelial ovarian tumors, particularly clear cell and endometrioid carcinomas.

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**North American Society of Head and Neck Pathology**

**Sunday, March 18, 2012**

**1:30 – 5:00 PM**

**Convention Centre 301-305**

**The Case that Taught Me the Most: A Presidential Perspective**

Moderator: Susan Muller, Emory University, Atlanta, GA

**1:30 PM**

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

**1:45 PM**

**Red Herrings** – Samir El-Mofty, DMD, PhD, Washington University, St. Louis, MO

**2:15 PM**

**Striking Pathology Gold** – Margaret Brandwein-Gensler, MD, University of Alabama, Birmingham, AL

**2:45 PM**

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

**3:15 PM**

**Break**

**3:45 PM**

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

**4:15 PM**

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

**4:45 PM**

**Final Words** – Bruce M. Wenig, MD, Beth Israel Medical Center, New York, NY

The selection of topics for this Companion Meeting was gathered from the input of five members of the North American Society of Head and Neck Pathology (Gary Ellis; Jennifer Hunt; Raja Seethala; Bayardo Ordonez; Lester Thompson), all of whom have served in leadership or speaking roles for the society in the past. The topics were selected by the speakers in order to highlight pitfalls that even experts in the field have made, and how to avoid them. This focus on cases which are difficult or problematic for experts, will provide great insight into these topics for those attending. Based on current literature and updated knowledge, the program is designed to meet the needs of those who routinely interpret head and neck pathology specimens. The objectives of this meeting are aimed to help the attendees stay current in diagnostic criteria in important head and neck lesions.

NASHNP endorses this program and its delivery of critical information to those who review head and neck pathology.
Paleopathology Club
Sunday, March 18, 2012
1:30 – 3:00 PM
Convention Centre 215

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

1:30 PM  
Trauma and Pathology in a Nineteenth Century Ontario Cemetery – Michael W. Spence, University of Western Ontario, London, ON, Canada

2:00 PM  
The Role of the Sadlermuit Eskimo in Studies of Human Adaptation and Evolution – Andrew Nelson, University of Western Ontario, London, ON, Canada

2:30 PM  
Skeletal Indicators of Habitual Activities and Pathological Conditions Among Historic Fur Traders in Western Canada – Nancy C. Lovell, University of Alberta, Edmonton, AB, Canada

The topic was submitted by members of the Club and approved by the Co-Chairmen. The topic will reveal how several primitive societies lived in Canada. The objective is to determine the health and the diseases of different populations in those areas and compare them with the present diseases.

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Rodger C. Haggitt Gastrointestinal Pathology Society
Sunday, March 18, 2012
1:30 – 5:00 PM
Convention Centre Ballroom A/B

MANIFESTATIONS OF SYSTEMIC DISEASES IN THE GI TRACT

Moderator: Rhonda K. Yantiss, Weill Medical College of Cornell University, New York, NY

1:30 PM  
Drug-Induced Injury of the GI Tract – David A. Owen, MD, Vancouver General Hospital, Vancouver, BC, Canada

2:00 PM  
Infections in the Immunocompromised Host – Laura W. Lamps, MD, University of Arkansas Medical Center, Little Rock, AR

2:30 PM  
Immunodeficiency Syndromes That Mimic Primary GI Disorders – Susan Abraham, MD, MD Anderson Cancer Center, Houston, TX

3:00 PM  
Break

3:30 PM  
Gastrointestinal Manifestations of Systemic Vasculitis – John Hart, MD, University of Chicago Hospitals, Chicago, IL

4:00 PM  
Rodger C. Haggitt Memorial Lecture: Cutaneous Manifestations of Gastrointestinal Diseases or Gastrointestinal Manifestations of Cutaneous Diseases – Bruce Smoller, MD, USCAP

Members of the Rodger C. Haggitt Gastrointestinal Pathology Society Education Committee selected the topic in order to address growing concerns in the field of surgical pathology. A trend toward subspecialization among pathologists has led to a dangerous narrowing of scope with respect to the recognition and classification of diseases, particularly when systemic disorders are unexpectedly encountered in the gastrointestinal tract, or observed in the absence of adequate clinical history. For example, several types of medication and infection can cause serious gastrointestinal injury, some of which produce characteristic histologic changes. Systemic immunodeficiencies and immune-mediated illnesses also produce gastrointestinal symptoms that may represent the earliest manifestation of disease. The purpose of this session is to discuss important entities that cause generalized illness, yet have gastrointestinal manifestations that prompt mucosal biopsy analysis. Topics to be discussed include drug-induced mucosal injury and opportunistic infections, immunodeficiency syndromes that simulate primary gastrointestinal disorders, and immune-mediated diseases, such as vasculitides and cutaneous diseases, that simulate primary disorders of the gastrointestinal tract.
Society for Hematopathology  
Sunday, March 18, 2012  
1:30 – 5:00 PM  
Convention Centre 211-214

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

1:30 PM  
High Throughput Sequencing in Malignant Lymphoma – Randy D. Gascoyne, MD, BC Cancer Agency and BC Cancer Research Centre, Vancouver, BC, Canada

2:00 PM  
Methylomic Profiling in Acute Myeloid Leukemia – Maria E. Figueroa, University of Michigan, Ann Arbor, MI

2:30 PM  
MicroRNAs in Myelodysplastic Syndromes – Aly Karsan, British Columbia Cancer Research Centre, Vancouver, BC, Canada

3:00 PM  
Break

3:30 PM  
Introduction and Overview of Proteomics in Lymphoma – Kojo Elenitoba-Johnson, MD, University of Michigan, Ann Arbor, MI

4:00 PM  
Practical Use of New Technologies in Hematopathology – Dan Jones, MD, PhD, Quest Diagnostics Nichols Institute, Chantilly, VA

4:30 PM  
Question and Answer Session

The topic was chosen by the Executive Committee of the Society for Hematopathology at the recommendation of the membership because high-throughput technologies are being used increasingly in the investigation of hematopoietic proliferations and our members need to be familiar with these techniques. The field of hematopathology has traditionally led in the clinical use of advanced technology for the diagnosis, classification and monitoring of disease. This symposium will introduce the newest technologies, including high throughput sequencing, methylation profiling, detection of microRNAs and applications of proteomics in the study of hematopoietic proliferations. The audience will learn advances already made from the use of these technologies as well as how these methods may impact diagnostic pathology in the future.

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SUNDAY EVENING COMPANIONS  
American Society of Cytopathology in Coordination with Papanicolaou Society of Cytopathology  
Sunday, March 18, 2012  
7:30 – 10:30 PM  
Convention Centre 301-305

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

Moderator: Dina R. Mody, The Methodist Hospital, Houston, TX

7:30 PM  
Introduction of Program and Panelists – Dina R. Mody, MD, The Methodist Hospital, Houston, TX

7:50 PM  
Updates in the Surgical Pathology of Lung Cancer – William D. Travis, MD, Memorial Sloan-Kettering Cancer Center, New York, NY

8:25 PM  
Cytopathologic and Molecular Marker Analysis of Pulmonary Specimens – Fernando Schmitt, MD, University of Porto, Portugal

9:00 PM  
Management Guidelines and Targeted Therapies: An Oncologist’s Perspective – Julie Brahmer, The Johns Hopkins Hospital Baltimore, MD

9:35 PM  
Role of Cytotechnologists in the Diagnosis and Management of Patients with Lung Cancer – Jill L. Caudill, Mayo School of Health Sciences, Rochester, MN

10:10 PM  
Question and Answer Session

The ASC routinely solicits topics of interest from its membership at the annual scientific meeting. The Scientific Program Committee assembled all such surveys and requests from our members and meeting attendees and discussed these topics at a special committee meeting in February, 2011 resulting in the program. In addition to numerous requests on diagnostic issues relating to cytomorphology, there was a huge interest for clinically-oriented lectures on molecular tools and targeted therapies. Cytopathology has rapidly evolved into a clinically-oriented discipline and plays a key role in timely and accurate patient management. Recent years have seen an exponential growth of newer techniques (automation, immunomarkers and various molecular tests) being applied to supplement morphologic evaluation of cytologic specimens. Lung cytology is a commonly practiced area in diagnostic cytopathology and offers a great example of how the new cutting edge molecular tests and targeted therapies offer a truly multidisciplinary approach in better managing patients with lung cancer. Additionally, the new International Association for the Study of Lung Cancer/American Thoracic Society/European Respiratory Society International Multidisciplinary Classification of Lung Adenocarcinoma has created some confusion and unanswered questions particularly when dealing with small cytologic samples.
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 – 10:30 PM  
Convention Centre 220-222

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

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

7:30 PM  Introduction – George J. Netto, MD, Johns Hopkins Medical Institutions, Baltimore, MD

7:35 PM  Clinical Information Systems to Support Personalized Medicine at the Bedside – Mia Levy, MD, Vanderbilt University School of Medicine, Nashville, TN

8:15 PM  Training Residents in Molecular Pathology: Draft AMP Curriculum – Charles Hill, Emory University, Atlanta, GA

8:35 PM  Training Residents in Genomics: The Stanford Approach – Iris Schrijver, Stanford University Medical Center, Stanford, CA

8:55 PM  Training Residents in Genomics: The Beth Israel Deaconess Approach – Richard Haspel, MD, PhD, Beth Israel Deaconess Medical Center, Boston, MA

9:15 PM  Promises and Pitfalls of Genomic Information Technologies: Panel Discussion – Wayne W. Grody, MD, PhD, UCLA School of Medicine, Los Angeles, CA  
Richard Haspel, MD, PhD, Beth Israel Deaconess Medical Center, Boston, MA  
E. Blair Holladay, PhD, American Society for Clinical Pathology, Chicago, IL  
Karen Kaul, MD, PhD, NorthShore University Health System, Evanston, IL  
George J. Netto, MD, Johns Hopkins Medical Institutions, Baltimore, MD  
Iris Schrijver, Stanford University Medical Center, Stanford, CA  
Mark E. Sobel, MD, PhD, American Society for Investigative Pathology, Bethesda, MD

The Companion Meetings of the American Society for Investigative Pathology (ASIP), American Society for Clinical Pathology (ASCP), and Association for Molecular Pathology (AMP) were jointly programmed and coordinated with the goal of introducing and exploring in depth the new sub-discipline of genomic pathology and how it will serve personalized genomic medicine. The three societies worked together to meet the challenge that is described in detail in Tonellato PJ et al: A national agenda for the future of pathology in personalized medicine: report of the proceedings of a meeting at the Banbury conference Center: genome-era pathology, precision diagnostics and pre-emptive care: a stakeholder summit. Am J Clin Pathol 2011, 135:668-672.

The topic of genomic pathology in clinical diagnostics was determined by the Councils and education-related committees/commissions of the three societies. Personalized genomic medicine will play an important role in future medical practice; however, physicians in general, and many pathologists are currently ill-equipped to meet the challenge because genomic pathology is a new field of discovery and much work needs to be done to educate practitioners about the potential promises and pitfalls of diagnostic, prognostic, and therapeutic applications of genomic pathology. The first part of the joint program (ASIP Companion Meeting in the afternoon) introduces the field of genomic pathology and its technologic underpinnings. This will be followed by presentations focused on clinical and research applications in inherited diseases, cancer, and infectious diseases. The second part of the program (AMP and ASCP Companion Meetings in the evening) will focus on informatics systems to support personalized medicine and training residents in genomics. The joint program will end with an expert panel discussion about the promises and pitfalls of genomic information technologies. Ample time will be provided for questions from the audience.

The coordinated ASIP, AMP, and ASCP Companion Meetings are targeted to practicing pathologists and pathologists-in-training, as well as to molecular/genetic pathologists with the objectives of (1) providing education about next generation sequencing and other modern technologies and their potential applications to clinical diagnostics and therapeutics, and (2) offering resources for the training of residents and fellows.
Moderator: Aysegul Sahin, Houston, University of Texas MD Anderson Cancer Center, Houston, TX

7:30 PM Introduction and Award Presentation – Ann D. Thor, MD, University of Colorado, Denver, CO

7:45 PM Ductal Carcinoma In Situ: Morphology-Based Knowledge and Molecular Advances – Edi Brogi, MD, PhD, Memorial Sloan-Kettering Cancer Center, New York, NY

8:15 PM Lobular Carcinoma In Situ: Past, Present and Future – Timothy W. Jacobs, MBChB, Virginia Mason Medical Center, Seattle, WA

8:45 PM Clinical Management of High Risk Breast Lesions: What a Medical Oncologist Needs from Pathology – Julie R. Gralow, University of Washington, Seattle, WA

9:15 PM Question and Answer Session

9:55 PM Closing Remarks

Topics were determined by the executive committee of the International Society of Breast Pathology. The selection of topics takes into consideration previous companion meeting presentations, the needs of society members and the general audience, and recent advances in the field of breast pathology. The topics provide updates for practicing pathologists and trainees on advances in histopathologic features of in-situ carcinomas of breast, role of molecular markers in classification of in situ lesions, and clinical management of high risk lesions of breast.
EVENING SPECIALTY CONFERENCE
Gynecologic Pathology
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre Ballroom A/B
Two Debates in Gynecologic Pathology

Moderator:

RICHARD J. ZAINO, MD
Hershey Medical Ctr
Hershey, PA

Panelists:

Case #1 EIN is Superior to WHO in the Diagnosis and Management of Precursors of Endometrioid Adenocarcinoma
Pro: MARISA R. NUCCI, Brigham & Women’s Hosp, Boston, MA
Con: LORA HEDRICK ELLENSON, New York Presbyterian Hosp, New York, NY

Case #2 The Diagnosis of the Usual Complete or Partial Mole Requires an Immune and/or Molecular Workup Rather Than Just a Good H&E Stain and Some Experience
Pro: BRIGITTE M. RONNETT, Johns Hopkins Hospital, Baltimore, MD
Con: JANICE M. LAGE, Medical Univ of SC, Charleston, SC

Please Note –
Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
EVENING SPECIALTY CONFERENCE

Housestaff Specialty Conference
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre Ballroom D
Negotiating for Your First Job

Moderators:

JENNIFER L. HUNT, MD
University of Arkansas for Medical Sciences
Little Rock, AR

SUZANNE Z. POWELL, MD
The Methodist Hospital
Houston, TX

Panelists:

Introduction
JENNIFER L. HUNT, University of Arkansas for Medical Sciences, Little Rock, AR
SUZANNE Z. POWELL, The Methodist Hospital, Houston, TX

Negotiating A Private Practice Job
ALFRED LUI, Torrance, CA

Negotiating A Research Academic Position
STEPHEN GALLI, Stanford University, Stanford, CA

Negotiating A Clinical Academic Position
MICHAEL L. TALBERT, Univ of Oklahoma, Oklahoma City, OK

Interviewing and Understanding Trends in Compensation
TARA KOCHIS, Slone Partners, Centerville, VA

APPETIZERS AND BEVERAGES PROVIDED

Please Note –
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EVENING SPECIALTY CONFERENCE
Ophthalmic Pathology
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre 215
Pathology of the Cornea

Moderator:

THOMAS J. CUMMINGS, MD
Duke Univ Med Ctr
Durham, NC

Panelists:
MICHELE M. BLOOMER, UCSF, San Francisco, CA
PATRICIA CHEVEZ-BARRIOS, The Methodist Hospital, Houston, TX
GORDON K. KLINTWORTH, Duke Univ Medical Center, Durham, NC
LYNN SCHOENFIELD, Cleveland Clinic, Cleveland, OH
NORA V. LAVER, Tufts Medical Centr, Boston, MA

EVENING SPECIALTY CONFERENCE
Pediatric Pathology
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre 217-219
Beyond Chorioamnionitis: What You Didn’t Know You Were Missing During Placental Examination

Moderators:

DAVID PARIHAM, MD
OUIHSC College/Medicine
Oklahoma City, OK

ONA M. FAYE-PETERSEN, MD
Univ of Alabama
Birmingham, AL

Panelists:
ONA M. FAYE-PETERSEN, Univ of Alabama, Birmingham, AL
AMY HEEREMA MCKENNEY, Stanford University, Stanford, CA
PHILIP J. KATZMAN, University of Rochester Medical Center, Rochester, NY
LINDA ERNST, Northwestern University, Chicago, IL
MONIQUE DE PAPEPE, Women & Infants Hospital, Providence, RI

Please Note –

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EVENING SPECIALTY CONFERENCE
Pulmonary Pathology
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre 211-214
Neoplasms Presenting as Diffuse Lung Disease

Moderator:

THOMAS V. COLBY, MD
Mayo Clinic Arizona
Scottsdale, AZ

Panelists:
LINDSAY A. SCHMIDT, University of Michigan, Ann Arbor, MI
JOANNE LYNNE WRIGHT, University of British Columbia, Vancouver, BC, Canada
KIRK D. JONES, UCSF, San Francisco, CA
ANJA C. RODEN, Mayo Clinic, Rochester, MN
WILLIAM D. TRAVIS, Memorial Sloan Kettering Cancer Ctr, New York, NY

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EVENING SPECIALTY CONFERENCE
Renal Pathology
Sunday, March 18, 2012
7:30 – 9:30 PM
Convention Centre 205-207
Yes, We Still Need Electron Microscopy

Moderator:

MARK HAAS, MD, PhD
Cedars-Sinai Med Ctr
Los Angeles, CA

Panelists:
SHERRY L. WERNER, University of Texas Health Sciences Center, San Antonio, TX
DAVID N. HOWELL, Duke Univ Med Ctr, Durham, NC
KENSUKE JOH, Sendai Shakaihoken Hospital, Sendai City, Miyagiken, Japan
MEGAN L. TROXELL, Oregon Health & Science Univ, Portland, OR
GUILLERMO A. HERRERA, Bostwick Lab/Nephrocor, Orlando, FL

Please Note –
Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
SPECIAL COURSE
Introduction to Molecular Pathology for the Practicing Pathologist: Technology, Assay Interpretation, and Pitfalls
Monday, March 19, 2012
8:00 AM – 4:30 PM
Convention Centre 220-222

Course Director: Jennifer L. Hunt, MD, MEd, University of Arkansas for Medical Sciences, Little Rock, AR

Course Description:
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.

8:00 AM Introduction to Basic Molecular Pathology Techniques: Fixation, Microdissection, and Polymerase Chain Reaction-Based Assays
Jennifer L. Hunt, MD, MEd, University of Arkansas for Medical Sciences, Little Rock, AR
• Recognize the effects of fixation on nucleic acids and will be able to select assays that are appropriate to the tissue material available.
• Describe the phases of a standard polymerase chain reaction.

9:15 AM Loss of Heterozygosity and Microsatellite Instability in Tumors: Mechanisms, Testing, and Clinical Implications
Wade S. Samowitz, MD, University of Utah Health Sciences Center, Salt Lake City, UT
• 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.

10:00 AM Break: Poster Viewing

10:45 AM Applications of Tissue Genotyping in the Routine Practice of Surgical Pathology
Pei Hui, MD, PhD, Yale University School of Medicine, Shelton, CT
• 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.

11:30 AM Question and Answer

11:45 AM Lunch

12:45 PM Copy Number Detection by Chromosomal Microarray Analysis
Long Phi Le, MD, PhD, Massachusetts General Hospital, Boston, MA
• Describe the role of copy number variation in genetics and disease.
• Characterize the methodology, utility and limitation of chromosomal microarray analysis.

1:30 PM Introduction to In Situ Hybridization Technology, Interpretation, and Pitfalls
Long Phi Le, MD, PhD, Massachusetts General Hospital, Boston, MA
• Select the appropriate approach for translocation testing in clinical testing.
• Describe the pitfalls in interpretation and scoring of FISH based testing.

2:00 PM HPV Detection: Testing Methodologies and Their Clinical Utility
Jennifer Laudadio, MD, Wake Forest University Baptist Medical Center, Winston-Salem, NC
• Explain the role of Human Papillomavirus in oncogenesis.
• Describe the clinical indications, appropriate sample types and available methods for HPV detection.

2:30 PM Principles and Applications of Real-Time Quantitative PCR
Janina A. Longtine, MD, Brigham and Women’s Hospital and Harvard Medical School, Boston, MA
• 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.

3:00 PM Break
Sequencing To Detect Oncogene Mutations in Clinical Anatomic Pathology Applications
Jennifer L. Hunt, MD, MEd, University of Arkansas for Medical Sciences, Little Rock, AR

- Identify the best approach for detecting oncogene mutations in tumor samples.
- Recognize the pitfalls in common approaches for oncogene detection technology.

Review and Summary
Question and Answer Session
11:20 AM  **GIST and Melanoma: The KIT Connection and So Much More**  
Alexander Lazar, MD, PhD, University of Texas M. D. Anderson Cancer Center, Houston, TX  
- 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.

11:50 AM  **Colorectal Cancer: Molecular Testing for the Surgical Pathologist**  
Kevin C. Halling, MD, PhD, Mayo Clinic, Rochester, MN  
- 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 \textit{KRAS} and \textit{BRAF} testing can be used to predict response to anti-EGFR therapies for patients with metastatic colorectal cancer (CRC).

12:20 PM  **Molecular Diagnostics of Thyroid Cancer**  
Yuri E. Nikiforov, MD, PhD, University of Pittsburgh, UPMC Presbyterian, Pittsburgh, PA  
- 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.

12:50 PM  **Question Period and Concluding Remarks**  

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**SPECIAL COURSE**  
**Careers in Pathology Investigation: Prepare to Launch**  
**Monday, March 19, 2012**  
**2:00 – 4:00 PM**  
**Convention Centre 301-305**

Course Directors:  
**David M. Berman, MD**, Johns Hopkins University School of Medicine, Baltimore, MD  
**Massimo F. Loda, MD**, Dana Farber Cancer Institute, Harvard Medical School, Boston, MA

Course Description:  
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.

2:00 PM  **Introductory Remarks**  
David M. Berman, MD, Johns Hopkins University School of Medicine, Baltimore, MD  
Massimo F. Loda, MD, Dana Farber Cancer Institute, Harvard Medical School, Boston, MA

2:10 PM  **Launching a Career in Pathology Investigation**  
Sylvia L. Asa, MD, University Health Network, Toronto, ON, Canada  
- 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.

2:25 PM  **Who Is Going To Fund Your Research?**  
Donna Vogel, MD, PhD, Johns Hopkins Medical Institutions, Baltimore, MD  
- 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.
2:45 PM  Collaborating with Industry as an Investigative Pathologist
Massimo F. Loda, MD, Dana Farber Cancer Institute, Harvard Medical School, Boston, MA
• Compare and contrast investigative pathologists’ roles in academia and industry.
• Describe risks and reward of academic-industrial research collaborations.

3:00 PM  Getting Your Paper Published: An Editor’s Perspective
Peter A. Hall, MD, PhD, FRCPath, King Faisal Specialist Hospital & Research Centre and Alfaisal University College of Medicine, Riyadh, Kingdom of Saudi Arabia
• 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.

3:15 PM  Investigative Pathology from the Perspective of a Surgical Pathologist
Christopher Fletcher, MD, FRCPath, Harvard Medical School and Brigham and Women’s Hospital, Boston, MA
• 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.

3:30 PM  Panel Discussion with Questions from the Audience
PROFFERED PAPERS
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC Ballroom A/B

Section A - Genitourinary (Including Renal Tumors)
Chaired by: Jonathan Epstein and Zhong Jiang

8:00 Incidence and Clinicopathological Characteristics of Intraductal Carcinoma of the Prostate Detected in Prostate Biopsies: A Prospective Cohort Study (1052)
KE Watts, J Li, C Magi-Galluzzi, M Zhou
Cleveland Clinic, Cleveland, OH

8:15 Biopsy Diagnosis of Intraductal Carcinoma Is Prognostic in Intermediate and High Risk Prostate Cancer Patients Treated by Radiation (1040)
TH Van der Kwast, N Aldaoud, L Collette, J Sykes, M Bolla, RG Bristow
Princess Margaret Hospital, University Health Network, Toronto, Canada; Jordan University of Science and Technology, Irbid, Jordan; EORTC Headquarter, Brussels, Belgium; Grenoble University Hospital, Grenoble, France

8:30 Predictors of Insignificant Prostate Cancer on Radical Prostatectomy (RP) Following Disease Progression during Active Surveillance (AS) (880)
JS Han, AD Toll, A Amin, B Carter, JI Epstein
The Johns Hopkins Hospital, Baltimore

8:45 Improving Margin Status in Radical Prostatectomies through Performance Measurement and Multidisciplinary Knowledge Transfer (KT) Activities: A Population Level Approach to Quality Improvement (1016)
JSRigley, A Evans, M Yurcan, A Hunter, J Hart, J Mazuryk, LMcknight, M Raby, J Irish, J Chint, TMcGowan, RMcLeod, NFleshner
Cancer Care Ontario, Toronto, Canada; McMaster University, Hamilton, Canada; University Health Network, Toronto, Canada; University Health Network and Mount Sinai Hospital, Toronto, Canada; University of Toronto, Toronto, Canada; London Health Sciences Centre, London, Canada; University of Western Ontario, London, Canada; Credit Valley Hospital, Mississauga, Canada; Mount Sinai Hospital, Toronto, Canada; Princess Margaret Hospital, Toronto, Canada

9:00 Renal Tumors in Patients with Von Hippel-Lindau Disease – A Single Institutional Study over 15 Years (988)
P Rao, FA Monzon, E Jonasch, P Tamboli
MD Anderson Cancer Center, Houston, TX; Baylor College of Medicine, Houston, TX

9:15 Re-Visiting the Use of Common Biomarkers in Cyto genetically Confirmed Subtypes of Renal Epithelial Neoplasia (853)
T Flood, P Dal Cin, MS Hirsch
Brigham & Women’s Hospital, Boston, MA

9:30 RECESS, EXHIBITS, POSTER SESSION I

11:00 Cyto genetic Analysis of Translocation Renal Cell Carcinomas Reveals Distinct Molecular Subtypes with Similarities to Other Renal Cell Tumors (960)
FA Monzon, G Malouf, J Couturier, V Molinie, P Escudier, P Tamboli, D Lopez-Terrada, M Picken, M Garcia, NTannir
The Methodist Hospital, Houston, TX; MD Anderson Cancer Center, Houston, TX; Institut Curie, Paris, France; Hospital Saint Joseph, Paris, France; Institut Gustave Roussy, Villejuif, France; Texas Children’s Hospital, Houston, TX; Loyola University Medical Center, Chicago, IL; University of Colorado, Aurora, CO

11:15 Mixed Epithelial and Stromal Tumor of Kidney. Molecular and IHC Findings of a Possible New Hereditary Syndrome (899)
L Jin-Ping, BA Walter Rodriguez, PP Aung, M Linehan, MJ Merino
NCI,NIH, Bethesda; NCI, NIH, Bethesda

11:30 Combined In Situ Hybridization and Immunohistochemistry for the Detection of Human Papillomavirus (HPV) Infection in Penile Carcinomas (966)
GJ Netto, AL Cubilla, R Sharma, J Hicks, KL Leckell, A Chaux
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

11:45 Can Quantitation and Sub-Categorization of Extraprostatic Extension (EPE) Predict Biochemical Recurrence (BCR) (866)
JC Gomez-Gelvez, M Diaz-Insua, M Menon, NGupta
Henry Ford Hospital, Detroit

PROFFERED PAPERS
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC Ballroom C
Section B - Breast
Chaired by: Timothy Jacobs and Rohit Bhargava

8:00 Fibroepithelial Lesions in the Breast of Adolescent Females: A Clinicopathological Profile of 35 Cases (254)
DS Ross, DD Giri, MM Akram, J Catalano, K Van Zee, E Brogi
Memorial Sloan-Kettering Cancer Center, New York

8:15 A Detailed Histologic Analysis of Flat Epithelial Atypia Diagnosed on Core Biopsy (276)
BJ Sutton, KP Sizipokou, ME Sullivan
Northwestern University, Chicago, IL

8:30 Routine Excision Is Necessary for Lobular Neoplasia Detected on Breast Core Needle Biopsy: Experience from a Large Women’s Health Center (130)
MM Desouki, AV Florea, K Mohammed, X Li, D Dabbs, C Zhao
UPMC, Pittsburgh, PA

8:45 Cellular Spindled Histiocytic Pseudotumor Complicating Mammary Fat Necrosis: A Potential Diagnostic Pitfall (263)
AP Sciallis, B Chen, AL Folpe
Mayo Clinic, Rochester, MN

9:00 Clinical and Pathological Characteristics of Her2 Positive Mucinous Carcinomas: The First Assessment of a Contradictory Lesion (151)
CFlynn, FA Tavassoli, N Buza
Yale University School of Medicine, New Haven, CT

9:15 Occult Involvement of Nipple by Malignancy Occurs in 14% of Therapeutic Nipple-Sparing Mastectomies (174)
RE Kaplan, SA Hoda
New York Presbyterian Hospital/Weill Cornell Medical College, New York, NY

9:30 RECESS, EXHIBITS, POSTER SESSION I

11:00 Toluidine Blue – Formalin Mixture: A Useful Tool To Enhance Detection of Benign and Malignant Breast Lesions for Gross Submission of Breast Specimens (172)
ZJiawe, Y-A Tseng, ESelbs, GK Turi
Winthrop University Hospital, Mineola, NY
11:15 Whole-Slide Digital Imaging Versus Optical Microscopy for Primary Diagnosis of Hematoxylin-and-Eosin-Stained Breast Tissue Sections (185)
S Krishnamurthy, K Mathews, S McClure, M Murray, D Visscher
Md Anderson Cancer Center, Houston; Scripps Memorial Hospital, LaJolla; Presbyterian Hospital, Charlotte; Memorial Sloan Kettering Cancer Center, New York; University of Michigan, Ann Arbor

11:30 Association of p27kip1 Expression and BRCA Status among Women with Breast Cancer: A Single Institution Study (260)
M Schneider, C Albarracin, B Aran, AM Gutierrez Barrerra, R Bassett, S Dawood, D Saab, L Gao, I Bedrosian, D Rosen
Baylor College of Medicine, Houston; The University of Texas MD Anderson Cancer Center, Houston; Dubai Hospital, Dubai, United Arab Emirates

11:45 HER2 Gene Amplification: The Most Important Independent Prognostic Factor in Patients with Stage II Breast Cancer (307)
P Zhang, E Castro-Echeverry, SM Dobin, A Rao
Scott and White Memorial Hospital, Temple, TX; Texas A&M Health Science Center, College Station, TX

PROFFERED PAPERS
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC 211-214

Section C - Hematopathology
Chaired by: Yasodha Natkunam and S. David Hudnall

8:00 Amplification and Gain of Extra Copies of MYC and BCL-2 Are Common Genetic Abnormalities in Diffuse Large B-Cell Lymphoma (DLBCL) (1595)
J William Ragheb, Z Yanning, L Peterson, J Gao, Y-H Chen
Northwestern University Feinberg School of Medicine, Chicago, IL

8:15 Co-Expression of MYC and BCL2 Protein in R-CHOP Treated De Novo Diffuse Large B-Cell Lymphoma Predicts Poor Outcome (1550)
GW Slack, KL Tan, DW Scott, S Ben-Neriah, NA Johnson, LH Sehn, JM Connors, RD Gascoyne
BC Cancer Agency, Vancouver, BC, Canada; McGill University, Montréal, QC, Canada

8:30 Focused Gene Expression Profiling of Diffuse Large B-Cell Lymphoma with MYC Rearrangement (1417)
TM Green, K de Stricker, KH Young, MB Moeller
Odense University Hospital, Odense, Denmark; University of Southern Denmark, Odense, Denmark; The University of Texas MD Anderson Cancer Center, Houston, TX

8:45 “Double Hit” Aggressive B-Cell Neoplasms with B-ALL Phenotypes: Role of FISH in the Diagnosis (1545)
RF Siddiqi, AC Baptista, C Ross, D Good, B Sheridan, D Bailey, KJ Craddock
University Health Network, University of Toronto, Toronto, Canada; Hamilton Health Sciences and McMaster University, Hamilton, Canada

9:00 ALK Positive Large B-Cell Lymphomas (ALK+ LBCL) Express the Terminal Plasma Cell Differentiation Program but Lack MYC Rearrangements (1578)
A Valera, L Colomo, A Martinez, D de Jong, O Balague, G Matheu, M Martinez, L Tadesse-Heath, ES Jaffe, CE Bacchi, E Campo
Hospital Clinic of Barcelona, Barcelona, Spain; Netherlands Cancer Institute, Amsterdam, Netherlands; Hospital de Manacor, Manacor, Spain; Laboratorio de Hematopatologia, Mendoza, Argentina; Howard University Hospital, Washington, DC; National Cancer Institute, Bethesda, USA; Consultoria em Patologia, Sao Paulo, Brazil

9:15 Deregulation of BANFI, a Novel JGH Translocation Partner, Indicates a Potential Pathogenic Role in B Cell Lymphomas (1599)
J Yan, K Nie, S Mathew, DM Knowles, O Orazi, W Tam
Weill Cornell Medical College, New York, NY

9:30 The Majority of Immunohistochemically BCL2 Negative FL Grade I/II Carry A t(14;18) with Mutations in Exon 1 of the BCL2 Gene and Can Be Identified with the BCL2 E17 Antibody (1347)
P Adam, R Baumann, I Bonzheim, F Fend, L Quintanilla-Martinez
Eberhard-Karls-University, Tübingen, Baden-Württemberg, Germany

11:15 Quantification of Intracanal Diversity in Follicular Lymphoma (1557)
JM Spence, JP Spence, WR Burack
University of Rochester School of Medicine and Dentistry, Rochester, NY

11:30 Phospho-ERK Thr202/Tyr204 Is Overexpressed in Hairy Cell Leukemia and Is a Useful Diagnostic Marker in Bone Marrow Trephine Sections (1586)
DW Warden, S Ondrekja, J Lin, L Durkin, J Bodo, ED Hsi
Cleveland Clinic, Cleveland, OH

11:45 aberrantly Sustained PAX5 Expression in Plasma Cell Differentiation Is a Frequent Feature in Lymphoplasmacytic Lymphoma but Not Marginal Zone Lymphoma in Bone Marrow (1477)
Y-C Liu, Y Liu, DM Knowles, O Orazi, W Tam
Weill Cornell Medical College, New York, NY

PROFFERED PAPERS
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC Ballroom D

Section D - Gastrointestinal
Chaired by: Alyssa Krasinskas and Rish Pai

8:00 Loss of SDHB Expression Is Limited to a Distinctive Subset of Gastric Wild-Type Gastrointestinal Stromal Tumors: A Comprehensive Genotype-Phenotype Correlation Study (657)
LA Doyle, MC Heinrich, CL Corless, JL Hornick
Brigham and Women's Hospital & Harvard Medical School, Boston, MA; Oregon Health & Science University, Portland, OR

8:15 A Focused Peritumoral Evaluation for Lymph Nodes and a “Second Look” Protocol Improves Nodal Staging of Colon Cancer: A Prospective Study of 102 Colectomies (702)
M Liosovsky, S Schulz, A Sartiniwina, A Srivastava
Dartmouth Hitchcock Medical Center, Lebanon; Brigham & Women's Hospital, Boston
### 8:00 AM - 12:00 PM

#### CC 202-204

**Section E - Gynecologic & Obstetrics**

**Chaired by: Robert Soslow and Anais Malpica**

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Predictors of Lymph Node Metastasis or Extraterine Disease in Low Grade Endometrial Carcinoma, a Multi Institutional Study (1127) <strong>E. Euscher, P. Fox, R. Bassett, H. Al-Ghawi, R. Ali-Fehmi, D. Barbuto, B. Djordjevic, E. Frauenhoffer, S. Hong, I. Kim, D. Montiel, E. Moschiano, A. Roma, E. Silva, A. Malpica</strong> MD Anderson, Houston, TX</td>
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<tr>
<td>8:15</td>
<td>Lower Uterine Segment Involvement in Low Grade Endometrioid Endometrial Adenocarcinoma: A Predictor of Disease Progression and Survival (1151) <strong>L. Hakima, L. Ogden, M. Feuerman, C. Bondoc, J. Villella, P. Khullar</strong> Winthrop University Hospital, Mineola</td>
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<td></td>
<td><strong>Time-Dependent Analysis of the Lymph Node Ratio and Its Prognostic Impact in Advanced Colorectal Cancer Stratified by Mismatch Repair Status</strong> (681) <strong>E. Karamitopoulou Diamantis, A. Lugli, I. Zlobec</strong> University of Bern, Bern, Switzerland</td>
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<tr>
<td>8:45</td>
<td>Silencing of P16 in Colorectal Cancer Is Associated with BRAF Mutation and Independent of Microsatellite Instability (721) <strong>T. Pal, M. Nikiforova, S. Kuan</strong> University of Pittsburgh, Pittsburgh, PA</td>
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<tr>
<td>9:00</td>
<td>Do Molecular Features of Colorectal Cancers Change Abruptly at Splenic Flexure? (718) <strong>S. Ogin, M. Yamauchi, T. Morikawa, C. Fuchs</strong> Brigham and Women’s Hospital, Boston, Dana-Farber Cancer Institute, Boston</td>
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<td>9:15</td>
<td>Can We Distinguish Mycophenolate-Induced Colitis from Colonic Graft-Host Disease? (696) <strong>D. G. Leino, J. K. Greenson</strong> University of Michigan Medical School, Ann Arbor, MI</td>
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<tr>
<td>9:30</td>
<td>RECESS, EXHIBITS, POSTER SESSION I</td>
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<tr>
<td>10:00</td>
<td>Hirschsprung’s Disease and Calretinin in Inadequate Biopsies (673) <strong>D. Hernandez Gonzalo, T. Plesec</strong> Cleveland Clinic, Cleveland, OH</td>
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<tr>
<td>10:15</td>
<td>Sexually Transmitted Disease (STD) Proctitis: Clues to a Frequently Missed Diagnosis (635) <strong>C. A. Arnold, E. Montgomery, L. Voltaggio</strong> Johns Hopkins, Baltimore; George Washington, Washington, DC</td>
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<tr>
<td>10:30</td>
<td>Increased IgG4+ Cells in Duodenal Biopsies Are Not Specific for Autoimmune Pancreatitis (768) <strong>M. Westerhoff, K. M. Cebe, P. A. Swanson, M. P. Upton</strong> University of Washington, Seattle, WA</td>
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<tr>
<td>10:45</td>
<td>Brightfield Double In Situ Hybridization Is Comparable to Fluorescence In Situ Hybridization for Determination of HER2 Amplification in Primary Gastric Adenocarcinoma (668) <strong>A. Grin, C. Brezden-Masley, S. Bauer, C. J. Streutker</strong> St. Michael’s Hospital, Toronto, Canada; University of Toronto, Toronto, Canada</td>
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### PROFFERED PAPERS

**Monday, March 19, 2012**

**8:00 AM - 12:00 PM**

**CC 202-204**

**Chaired by: Robert Soslow and Anais Malpica**

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<tr>
<td>8:00</td>
<td>miRNAs Regulate Myometrial Invasion in Endometrioid Endometrial Carcinoma (1214) <strong>A. Mozos, E. D. Angel, C. Rivera, E. Serrano, L. Catasus, J. Prat</strong> Hospital de la Santa Creu i Sant Pau. Institute of Biomedical Research (IIB Sant Pau). Autonomous University of Barcelona, Barcelona, Spain</td>
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<tr>
<td>8:15</td>
<td>STMN1 Expression Is Associated with FIGO Grade and Presence of Cervical Involvement in Uterine Endometrioid Carcinoma (1103) <strong>J. S. Chan, L. H. Ellenson</strong> NYP-Weill Cornell Medical Center, New York, NY</td>
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<tr>
<td>8:30</td>
<td>The Diagnosis of Endometrial Carcinomas with Clear Cells by Gynecologic Pathologists: An Interobserver Variability Study (1130) <strong>O. Pudare, V. Parkash, W. D. Dupont, G. Acs, K. A. Atkins, J. A. Irving, E. C. Pirog, B. J. Quade, M. R. Quduss, J. T. Rabban, R. Yang, J. L. Hecht</strong> Vanderbilt University, TN; Yale University, CT; Moffitt Cancer Center, FL; University of Virginia, VA; Royal Jubilee Hospital, BC, Canada; Cornell University, New York; Harvard University, MA; Brown University, RI; UCSF, CA; Johns Hopkins University, MD</td>
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<td>8:45</td>
<td>Molecular Changes in Endometrial Clear Cell Carcinomas and Carcinomas with Clear Cell Features (1116) <strong>D. DeLair, D. Levine, F. Bogomolny, S. Wethington, G. Han, R. A. Soslows</strong> Memorial Sloan-Kettering Cancer Center, New York, NY; University of Calgary, Calgary, Canada</td>
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### RECESS, EXHIBITS, POSTER SESSION I

**11:00 AM - 12:00 PM**

**CC 202-204**

**Chaired by: Robert Soslow and Anais Malpica**

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<tr>
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<tr>
<td>11:00</td>
<td>Atypical Uterine Polyps Sub-Diagnostic of Mullerian Adenosarcoma: A Clinicopathologic Analysis of 28 Cases with Long Term Followup (1159) <strong>B. E. Howitt, B. J. Quade, M. R. Nucci</strong> Brigham and Women’s Hospital, Boston, MA</td>
</tr>
<tr>
<td>11:15</td>
<td>Do Mitotic Index and Tumor Cell Necrosis Predict Patient Outcome in Low-Grade Endometrial Stromal Sarcomas? A Study of 33 Patients (1105) <strong>S. Chiang, K. Van de Vijver, J. Lourieiro, M. Nucci, E. Oliva</strong> Massachusetts General Hospital, Boston, MA; Maastricht University Medical Center, Maastricht, Netherlands; Brigham and Women’s Hospital, Boston, MA</td>
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<td>11:30</td>
<td>Cyclin D1 Is a Sensitive and Specific Diagnostic Immunomarker for YWHAE-FAM22A/B Endometrial Stromal Sarcoma (1183) <strong>C. H. Lee, R. Ali, A. Marino-Enriquez, W.-B. Ou, M. Zhu, X. Guo, A. L. Brunner, S. Chiang, E. Oliva, M. Rozsbahman, C. B. Gilks, P. Dal Cin, P. B. West, M. van de Rijn, J. A. Fletcher, M. R. Nucci</strong> Vancouver General Hospital, Vancouver, Canada; Brigham and Women’s Hospital, Boston; Stanford University Medical Center, Stanford; Massachusetts General Hospital, Vancouver; Toronto General Hospital, Toronto, Canada</td>
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<tr>
<td>11:45</td>
<td>YWHAE Rearrangement Identified by FISH in a Series of Undifferentiated Endometrial Stromal Sarcomas: Genetic and Pathological Correlations (1109) <strong>S. Croce, F. Chibon, A. Ribeiro, R. Jacquemart, L. Jeanmet, M. Sire, J.-M. Coindre, G. MacGrogan</strong> Institut Bergonie, Bordeaux, France</td>
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**PROFFERED PAPERS**
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC 205-207

Section F - Dermatopathology
Chaired by: Melissa Pulitzer and Rajiv Patel

8:00 microRNAs as Prognostic Biomarkers in Malignant Melanoma (462)  
MS Afi Daood, P Nuin, J Chen, X Zhang, H Fieillot; VA Tron  
Queen’s University, Kingston, ON, Canada

8:15 Lentiginous Compound Dysplastic Nevus of the Back – A Mimic of Recurrent Nevus and Malignant Melanoma with Regression (517)  
K Linskey, A Piris, MC Mihm, M Hoang  
Massachusetts General Hospital, Boston, MA; Brigham & Women’s Hospital, Boston, MA

8:30 Plexifor Spindle Cell Nevus: A Clinicopathologic Study of 122 Cases (504)  
T Hung, A Yang, RL Barnhill  
Vancouver General Hospital and University of British Columbia, Vancouver, BC, Canada; UCLA Medical Center, Los Angeles, CA

8:45 Pathological Features of the Primary Melanomas of Patients Studied in the Multi-Center Sentinel Lymphadenectomy Trial-I (MSLT-I) and Their Relationship to Sentinel Node Tumor Status and Clinical Outcome (550)  
CN Smart, AJ Cochran, E Itakura, D-R Wen, MSLT-I Study Group Pathologists, DL Morton  
UCLA/David Geffen School of Medicine, Los Angeles, CA; John Wayne Cancer Institute, St. John’s Medical Center and Hospital, Santa Monica, CA; Johnson Comprehensive Cancer Center, Los Angeles, CA

9:00 Embryonic Stem Cell Markers Nestin and Sox2 Can Differentiate Metastatic Melanoma from Nodal Melanocytic Nevi and Serve as a Powerful Diagnostic Adjunct in Sentinel Lymph Node Evaluation and Melanoma Staging (475)  
P-L Chen, W-S Chen, J Li, AC Lind, D Lu  
Washington University School of Medicine, Saint Louis

9:15 Cutaneous Marginal Zone Lymphoma: A Multi-Institutional Clinicopathologic Study (514)  
J Kozel, LP Dehner, MY Hurley, JL Frater  
Saint Louis University, St Louis, MO; Washington University, St Louis, MO

9:30 RECESS, EXHIBITS, POSTER SESSION I

11:00 Pathological and Clinical Characteristics of Mammary Paget Disease: 25-Year Experience from a Major Tertiary Referral Center (496)  
AE Gullett, N Sniege, VG Prieto, CM Kelly, RL Bassett, E Resetkova, X Duan, Y Li, D Rosen, Y Wu, L Hoo, K Klein, I Bedrosian, B Arun, K Hunt, CT Albarracin  
The University of Texas at Houston, Houston, TX; M.D. Anderson Cancer Center, Houston, TX

11:15 Non-Infectious Vulvitis: A Histopathologic Review and Classification of 183 Cases (471)  
MP Chan, MJ Zimarowski  
University of Michigan, Ann Arbor, MI; Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA

11:30 Herpetic Dermatitis: Correlation of Clinical Impression, Histopathologic Findings and PCR (510)  
CL Kinonen, BC Gleason, AB Thomas, KL Kaul, G Turner, TA Victor, TL Cibul  
Evanston Hospital - NorthShore University HealthSystem, Evanston, IL; Diagnostic Pathology Medical Group, Sacramento, CA

11:45 Metastasizing “Benign” Fibrous Histiocytoma: A Clinicopathologic Study of 15 Cases (486)  
LA Doyle, CDM Fletcher  
Brigham and Women’s Hospital & Harvard Medical School, Boston, MA

**PROFFERED PAPERS**
Monday, March 19, 2012
8:00 AM - 9:30 AM
CC 223-224

Section G1 - Pancreas
Chaired by: Vikram Deshpande and Laura Tang

8:00 Histologic Grading the Extent of Residual Carcinoma Following Neoadjuvant Chemoradiation in Pancreatic Ductal Adenocarcinoma: A Predictor for Patient Outcome (1842)  
University of Texas M.D. Anderson Cancer Center, Houston, TX

8:15 Low Expression of Ribonucleotide Reductase M1 Predicts Adjuvant Gemcitabine Treatment Benefit in Patients with Resectable Pancreatic Adenocarcinoma (1878)  
H Xie, W Jiang, J Jiang, Y Wang, R Kim, X Liu  
Cleveland Clinic, Cleveland; Veridx LLC, Johnson & Johnson Company, San Diego; Moffitt Cancer Center, Tampa

8:30 MDM2 SNP-309 Promoter Polymorphism, MDM2 and p53 Expression in Pancreatic Ductal Adenocarcinoma (1879)  
X Zhou, J Rock, ME McNally, M Bloomston, W Zhao, G Lozanski, WL Frankel  
Ohio State University, Columbus, OH

8:45 Cystic Mucinous Duct Lesion of the Pancreas: A Clinicopathologic Analysis of 40 Examples of a Diagnostically Challenging and Terminologically Controversial Entity (1857)  
A Krasinskas, GJ Oakley, P Bagci, K-T Jiang, O Basturk, JD Cheng, LE Ducato, CE Hill, I Erbarut, V Adsay  
UPMC, Pittsburgh; Emory University, Atlanta; MSKCC, New York; Piedmont Hospital, Atlanta

9:00 Ki-67 Proliferation Index and Mitotic Rate Discordance in Pancreatic Neuroendocrine Tumors Correlates with Aggressive Histologic Features and Decreased Overall Survival (1863)  
CM McCall, C Shi, T Ellison, RH Hruban, C Wolfgang, R Schulick, M Choti, D Klimstra, O Basturk, BH Edil  
The Johns Hopkins University School of Medicine, Baltimore, MD; Vanderbilt University School of Medicine, Nashville, TN; Memorial Sloan-Kettering Cancer Center, New York, NY

9:15 Activation of cdk4/Cyclind D1 and the Associated Attenuation of Rb Function in Pancreatic Neuroendocrine Tumors (Pan-NETs) (1872)  
LH Tang, DS Klimstra  
Memorial Sloan Kettering Cancer Center, New York, NY

9:30 RECESS, EXHIBITS, POSTER SESSION I
PROFFERED PAPERS
Monday, March 19, 2012
11:00 AM - 12:00 PM
CC 223-224
Section G2 - Pathobiology
Chaired by: Donna Hansel and Robert West

11:00 mTORC1 Activity Is Necessary and Sufficient To Inhibit Mammary Epithelial Cell Invasion in 3D Culture (1925)
S Ghosh, L Varela, A Sood, AJ Ewald, TL Lotan
Johns Hopkins School of Medicine, Baltimore, MD

11:15 Identification of Pathogens in Archival Tissues Using a High-Throughput Sequencing Approach, 3SEQ (1947)
RT Sweeney, AL Brunner, KD Montgomery, SX Zhu, C Kong, Q Le, RB West
Stanford University School of Medicine, Stanford, CA

11:30 Aurora Kinase Inhibitors as a Novel Targeted Drug Therapy for Bladder Cancer (1953)
N Zhou, K Singh, A Almasan, DE Hansel
Cleveland Clinic, Cleveland, OH

11:45 The Tumor Suppressor ARF Can Promote Invasion in the Absence of p53 Activity (1922)
B Doyle, EH Tan, P Timpson, LM Machesky, RR Ridgway, RR Jeffery, R Poulsom, JP Morton, OJ Sansom
Trinity College, Dublin, Ireland; Beatson Institute for Cancer Research, Glasgow, United Kingdom; Cancer Research UK London Research Institute, London, United Kingdom

PROFFERED PAPERS
Monday, March 19, 2012
8:00 AM - 12:00 PM
CC 217-219
Section H - Potpourri - Autopsy, Education, Informatics, Infections, Ophthalmic, Pediatrics, Ultrastructural
Chaired by: J. Allan Tucker and Elizabeth Pavlisko

8:00 The Histopathology of the Liver in HIV+ and Acquired Immunodeficiency Deficiency Syndrome (AIDS) Individuals in the HAART Era (16)
JL Yao, P Schiano, S Morgello, MI Fiel
Mount Sinai School of Medicine, New York City, NY

8:15 Histopathologic Evaluation of In-Stent Restenosis at Autopsy in Patients with Coronary Stents (5)
T Huebner, N Cresswell, E Mont, F Tavara, A Burke
University of Maryland, Baltimore; Georgetown, Washington, DC; Messejana Heart and Lung Hospital, Ceara, Brazil; Nova Scotia Medical Examiner Service, Nova Scotia, Canada

8:30 Pathology Resident Performance in Simulated Clinician Communication Hand-Offs (566)
SM Dintzis, S Mehri, D Laff, JS Stuijk, H Mack, G Kotnis, SS Raab
University of Washington, Seattle; University of Colorado, Denver; Cleveland Clinic, Cleveland

8:45 False Discovery and Fairy Tales in Gene Expression Analysis (1644)
CJ Rog, ME Edgerton
MD Anderson Cancer Center, Houston, TX

9:00 An In Silico Approach to Finding the Expected Frequency of Coincidental Overlaps for In Situ Hybridization Using Dual- Colour Fusion Probes (1632)
M Bonert, KJ Craddock
University of Toronto, Toronto, ON, Canada; University Health Network, Toronto, ON, Canada

9:15 Pathologic Studies of Cases with Fungal Soft Tissue Infections after a Tornado – Joplin, Missouri, 2011 (1625)
W-J Shieh, C Drew, S Lockhart, CA Taylor, L Liu, D Blau, C Paddock, L Gade, RN Fanfair, G Turabelidze, BJ Park, ME Brandt, SR Zaki
Centers for Disease Control and Prevention (CDC), Atlanta, GA; Missouri Department of Health and Senior Services, Jefferson City, MO

9:30 RECESS, EXHIBITS, POSTER SESSION I

11:00 A Simplified Protocol for Rapid Sequence-Based Fungal Identification from Culture or Formalin-Fixed, Paraffin Embedded (FFPE) Tissues (1623)
DE Nowak, DA Chitale, R Tibbetts
Henry Ford Hospital, Detroit, MI

11:15 Twist, E-Cadherin, and Uveal Melanoma Metastasis (1828)
WR Bell, A Spitz, L Asnaghi, ML Coenfield, CG Eberhart
Johns Hopkins University School of Medicine, Baltimore, MD

11:30 Characterisation of t(10;17)(q22;p13) in Clear Cell Sarcoma of Kidney (1958)
E O'Meara, D Stack, C Lee, J Garvin, T Morris, P Argani, D Gisselsson, I Leuschner, M Gessler, N Graf, JA Fletcher, MJ O'Sullivan
Our Lady’s Children’s Hospital, Crumlin, Dublin, Ireland

11:45 Patterns of Proximal Tubulopathy in Monoclonal Light Chain-Associated Renal Damage Defined Ultrastructurally (2171)
GA Herrera, EA Turbat-Herrera
Nephrocor, Orlando

POSTER SESSION I
Monday, March 19, 2012
9:30 AM - 12:00 PM
CC Exhibit Hall B3 & C

Stowell-Orbison/Surgical Pathology/Autopsy Awards Poster
Poster numbers to the left of the abstract title correspond to the board number where the poster will be displayed. The number in parentheses after the title is the abstract number in the Abstract Book. These posters will be on display this morning only.

SPECIAL TOPICS - PAN-GENOMIC/PAN-PROTEOMIC APPROACHES TO DISEASES

Board Number
1 “Calling Cards” Is a Novel Next-Gen Sequencing Approach That Identifies SRY Targets (1881)
GA Bien-Willner, D Mayhew, R Mitra
Washington University School of Medicine, St. Louis, MO

2 Exome Sequencing and Integrative Mutational Profiling of Lethal Castrate Resistant Prostate Cancer (1906)
SA Tomlins, CS Grasso, DR Robinson, Y-M Wu, S Dhanasekaran, MJ Quist, X Cao, X Jing, JC Brenner, DR Rhodes, KJ Pienta, AM Chinnaiyan
Michigan Center for Translational Pathology, University of Michigan Medical School, Ann Arbor, MI; Compendia Biosciences and University of Michigan Medical School, Ann Arbor, MI

3 Understanding the Immunopathogenesis of Sarcoidosis through Gene Expression Profiling (1884)
C Curtiss, G Christophi, S Landas
SUNY Upstate Medical University, Syracuse, NY; Washington University in St. Louis, St. Louis, MO
AUTOPSY

4 Utility of Rapid Cytologic Techniques in the Autopsy Setting
   PA VanderLaan, JF Krane, GL Winters
   Brigham and Women’s Hospital, Boston, MA

5 Does Genotyping for Warfarin Sensitivity Save Lives? A Study of
   Individuals on Warfarin Who Died of Bleeding
   C Hellman, C Krinsky, S Lathrop, MA Vasef
   University of New Mexico, Albuquerque, NM

6 C4d: A Marker for Cardiac Allograft Vasculopathy
   MK Mirza, S Fedson, Y Chi, SR Marino, AN Husain
   University of Chicago Medical Center, Chicago, IL; Munster Community Hospital, Munster, IN

7 Isolated Right Ventricular Myocardial Infarction
   SI Odronic, ER Rodriguez, CD Tan
   Cleveland Clinic, Cleveland, OH

BONE & SOFT TISSUE

8 Is Routine Histopathologic Examination of Femoral
   Heads Justified? A 10-Year Review of Clinicopathologic
   Discrepancies in Elective Hip Arthroplasty Specimens at Two
   Institutions
   KB Brown, L Rezeau, NY Ishaq, AS Brown, EF DiCarlo, MJ Klein
   The University of Mississippi Medical Center, Jackson, MS; Weill Cornell Medical College, New York, NY; Hospital for Special Surgery, New York, NY

9 Loss of Heterozygosity, but Not Microsatellite Instability, Is
   Present in Sporadic Dedifferentiated Liposarcoma: A Study of
   46 Genetically Confirmed Cases
   JL Davis, AE Horvai
   UCSF, San Francisco, CA

10 Clinicopathological and Prognostic Significance of Akt-mTOR
    and MAPK Pathways and Antitumor Effect of mTOR Inhibitor
    in Malignant Peripheral Nerve Sheath Tumor
    M Endo, N Setsu, Y Takahashi, T Ishii, K Kohashi, H Yamamoto, S Tamiya, S Matsuda, Y Iwamoto, M Hakozaki, H Iwasaki, Y Oda
    Kyushu University, Fukuoka, Japan; Fukushima Medical University School of Medicine, Fukushima, Japan; Fukuoka University, Fukuoka, Japan

11 Clinical Utility of MYH9/USP6 Fusion Transcript Detection and
   USP6 Expression in Nodular Fasciitis
   NR Patel, EG D'Emidio, AM Major, W-L Wang, AJ Lazar, D Lopez-Terrada
   Baylor College of Medicine/Texas Children’s Hospital, Houston, TX; The University of Texas M.D. Anderson Cancer Center, Houston, TX

12 SOX11 Is a Marker for Myxoid/Round Cell Liposarcoma
   KJ Jones, ND Riddle, JS Brooks, J-H Huang
   Pennsylvania Hospital, Philadelphia, PA

13 Liposarcoma of the Mediastinum and Thorax- 22 Cases in an
   Uncommon Location with Diverse and Unusual Histology
   JM Boland, TV Colby, AL Folpe
   Mayo Clinic, Rochester, MN; Mayo Clinic, Scottsdale, AZ

14 Comprehensive Analysis of Cathepsin K Expression in Human
   Neoplasms
   Johns Hopkins Hospital, Baltimore, MD; University of Verona, Verona, Italy; Memorial Sloan-Kettering Cancer, New York

15 Loss of Retinoblastoma (RB) Tumor Suppressor Expression in
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   JM McFalls, J Kline, GF Schwartz, AK Wikiewicz
   Thomas Jefferson University, Philadelphia, PA

16 Use of Gene Expression Markers To Screen for BRCA-1
   Germline Mutations in Triple Negative Breast Cancer
   EA Swanson, X Li, PS Sullivan, NA Moatamed, SK Apple
   University of California, Los Angeles, Los Angeles, CA

17 Inter-Observer Agreement among Pathologists for Assessing Ki-67 Labeling Index on Whole Slides and “Hot Spots” in Breast Carcinomas
   M Amin, D Cohen, DJ Dabbs, KL Cooper, TE Jones, M Jones, AG Trucco, M Chivukula, R Bhargava
   Magee-Womens Hospital of UPMC, Pittsburgh, PA; University of Pittsburgh Cancer Institute, Pittsburgh, PA

18 Predictive Marker (PM) Discordance between Primary and
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   Targeted Therapy
   G Tozbikian, A Zieber, P Zhang
   Hospital of the University of Pennsylvania, Philadelphia, PA

19 Development and Validation of a Novel Gene Expression-Based
   Macrophage-Associated Marker Prognostic Score
   LM Quintana, AH Beck
   Beth Israel Deaconess Medical Center, Boston, MA

20 Inter-Observer Agreement among Pathologists for Semi-
   Quantitative Hormone Receptor Scoring in Breast Carcinoma
   DA Cohen, DJ Dabbs, KL Cooper, M Amin, TE Jones, MW Jones, M Chivukula, GA Trucco, R Bhargava
   Magee-Womens Hospital of University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA; University of Pittsburgh Cancer Institute (UPCI) Biostatistics Facility, Pittsburgh, PA

21 Marked Atypical Duct Hyperplasia Which Borders Low Grade
   Ductal Carcinoma In Situ on Core Biopsy Should Be Managed
   Conservatively
   CJ VandenBussche, E Shaitt, TN Tsangaris, N Khouri, R Vang, A Tatsas, A Cimino-Mathews, P Argani
   The Johns Hopkins Medical Institutions, Baltimore, MD

22 Clinicopathologic Characteristics of HER2 FISH Ambiguous
   Breast Cancer at a Single Institution
   MR Clay, KC Jensen
   Stanford Hospital and Clinics, Stanford, CA; Veterans Affairs, Palo Alto Health Care System, Palo Alto, CA

23 Comparison of Complete and Representative Frozen Section
   Sampling of Breast Cancer Sentinel Lymph Node
   W Xu, K Kostroff, T Bhuiya
   Hofstra North Shore-LIJ School of Medicine, Lake Success, NY; Hofstra North Shore-LIJ School of Medicine, New Hyde Park, NY
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<td>Univ. of British Columbia, Vancouver, BC, Canada; Vancouver Gen. Hosp., Vancouver, BC, Canada</td>
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Mayo Clinic, Rochester, MN

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New York University School of Medicine, New York, NY; Memorial Sloan Kettering Cancer Center, New York, NY

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BT Larsen, S Bosio, JD Theis, JA Vrana, A Dogan, DV Miller 
University of Arizona, Tucson, AZ; University Hospital - Parma, Parma, Italy; Mayo Clinic, Rochester, MN; Intermountain Medical Center/University of Utah, Salt Lake City, UT

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MC Castonguay, KD Burner, WD Edwards, LM Baddour, JJ Malieszewski 
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ME Pittman, L Chen, JL Frater, A Hassan, TT Nguyen, F Kreisel 
Washington University in Saint Louis, Saint Louis, MO

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FL Loo, RS Hoda, J Zachariah, KC Jensen 
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H Zhou, DR Mody, MR Schwartz, CD Hobday, D Smith, SR Hodgson, D Coffey, Y Ge 
The Methodist Hospital, Houston, TX; Weill Medical College of Cornell University, Houston

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R McKnight, C Cohen, A Nassar, MT Siddiqui 
Emory University School of Medicine, Atlanta, GA; Mayo Clinic College of Medicine, Rochester, MN

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P Zhao, P deBrito, MK Sidawy 
Georgetown University Hospital, Washington, DC

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N Fatima, C Cohen, MT Siddiqui 
Emory University, Atlanta, GA

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The Methodist Hospital, Houston, TX; Weill Medical College of Cornell University, Houston, TX; Baylor College of Medicine, Houston, TX

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School of Allied Health, University of Nebraska Medical Center, Omaha, NE; University of Nebraska Medical Center, Omaha, NE

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C Velosa, SD Finkelstein, U Krishnamurti, Y Liu, JF Silverman, C Binkert, B Ujevich, A Mohanty 
Allegheny General Hospital, Pittsburgh, PA; West Penn Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Pittsburgh, PA

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SM Wilkins, A Samad, JL Holler, G Rahimaghrai, SA Amirouche, SE Pambuccian 
University of Minnesota Medical Center, Fairview, Minneapolis, MN

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A Samad, AA Shah, EB Stelow, SE Cameron, SE Pambuccian 
University of Minnesota, Minneapolis, MN; University of Virginia, Charlottesville, VA

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University of Pittsburgh Medical Center, Pittsburgh, PA; Yale University School of Medicine, New Haven, CT

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Emory University Hospital, Atlanta, GA; Leica Biosystems Newcastle Ltd, Newcastle upon Tyne, United Kingdom

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B Palla, A Sta, S Binder, S Dry
UCLA, Los Angeles, CA

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American University of Beirut Medical Center, Beirut, Lebanon; Shaukat Khanum Memorial Cancer Center, Lahore, Pakistan; Vienna Lab Diagnostics GmbH, Vienna, Austria; SAAD Specialist Center, Al Khobar, Saudi Arabia

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S Kurram, A Loya, S Taraif, C Oberkanins, I Khalifeh
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A Rashed, R Gonzalez, D Lawson, J Wang, C Cohen
Emory University Hospital, Atlanta, GA

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Loyola University Medical Center, Maywood, IL

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Queen’s University, Kingston, ON, Canada

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Ohio State University, Columbus, OH

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RA Owings, J Kaley, S Byrum, J Givens, A Tackett, W Cheung
University of Arkansas for Medical Sciences, Little Rock, AR

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ER Volpicelli, CDM Fletcher
Brigham and Women’s Hospital and Harvard Medical School, Boston, MA

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CS Friedman, N Crowson, MM Magro
NYP-Weill Cornell Medical College, New York, NY; Regional Medical Laboratory, Tulsa, OK

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University of Pittsburgh Medical Center, Pittsburgh, PA
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  TT Ha, JB Taxy
  University of Chicago, Chicago, IL

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  Loyola University Medical Center, Maywood, IL; Loyola University Medical Center, Maywood

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  University of Illinois, Chicago, IL; Edward Hines, Jr. VA Hospital, Maywood, IL

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  LL Adams, S Setty, EL Wiley
  University of Illinois at Chicago, Chicago, IL

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  X Zhang, JJ Johnson, MC Lloyd, D Letson, MM Bui
  University of South Florida College of Medicine, Tampa, FL; H. Lee Moffitt Cancer Center, Tampa, FL

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  Washington University School of Medicine, St. Louis, MO

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  Z Hu, Z Ibragimova, U Kapur, RM Wafat, S Mehrrota
  Loyola University Medical Center, Maywood, IL

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  J Hudson, E Duncavage, S Wells, A Tamburrino, P Salerno, L Xi, M Raffeld, J Moley, R Chernock
  Washington University School of Medicine, St Louis, MO; National Cancer Institute, Bethesda, MD

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  KE Fisher, CE Hill, C Foulks, CJ Weber, J Sharma, C Cohen
  Emory University, Atlanta, GA

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  AE Kovach, Q Lam, D Dias-Santagata, PM Sadow
  Massachusetts General Hospital, Boston, MA; Harvard Medical School, Boston, MA

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  HH Li Chang, WR Leeper, G Chan, D Quan, DK Driman
  University of Western Ontario, London, ON, Canada; University of Montreal, Montreal, QC, Canada

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  Y Han, K Sun, J Albanese, J Sunkara, A Leifer, KE Tanaka, Q Liu
  Montefiore Medical Center, Albert Einstein College of Medicine, Bronx, NY

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  O Elkadi, C Sheehan, J Ross, D Jones
  Albany Medical College, Albany, NY

102 Raf Kinase Inhibitor Protein (RKIP), Lympho-Vascular Invasion and Peritoneal Invasion Can Be Used To Identify a High-Risk Group of Stage II Colorectal Cancer Patients (658)
  Trinity College, Dublin, Ireland; Glasgow Caledonian University, Glasgow, United Kingdom; Kuwait University, Kuwait, Kuwait; University of Glasgow, Glasgow, United Kingdom; Beatson West of Scotland Cancer Centre, Glasgow, United Kingdom; St Vincent’s University Hospital, Dublin, Ireland; University of Aberdeen, Aberdeen, United Kingdom; University College Dublin, Dublin, Ireland

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  J Shen, T Morikawa, CS Fuchs, S Ogino
  Brigham and Women’s Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA

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  SN Salaria, E Montgomery, C Arnold
  Johns Hopkins, Baltimore

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  TS Khor, GY Lauwers, RD Odze, A Srivastava
  Massachusetts General Hospital, Boston, MA; Brigham and Women’s Hospital, Boston, MA

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  SM Pyatibrat, RM Najarian, JD Goldsmith
  Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA

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  University Health Network, Toronto, ON, Canada

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  T Stockl, O Walter, K Dresser, H Lee
  Univ. of Massachusetts, Worcester, MA
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RM Roth, JB Rock, WL Marsh, X Ao, AA Suarez, WL Frankel  
Ohio State University Medical Center, Columbus, OH

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MA DiMaio, S Kwok, KD Montgomery, AW Lowe, RK Pai  
Stanford University, Stanford, CA

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WL Neumann, GM Lujan, RM Genta  
Caris Research Institute, Irving, TX; University of Texas Southwestern Medical Center at Dallas, Dallas, TX

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Massachusetts General Hospital, Boston, MA; Brigham and Women’s Hospital, Boston, MA; Envio Pathology, Herston, QLD, Australia; PathWest Laboratory, Nedlands, WA, Australia; North Shore Medical Centre, Salem, MA; Pusan National University Hospital, Busan, Korea

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X Zhang, M Valasek, O Chang, J Hart, M Westerhoff  
University of Chicago, Chicago; University of Washington, Seattle

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S Lu, K Cleveland, V Mukkada, S Mangray, C Schorl, A Brodsky, M Resnick  
The Warren Alpert Medical School of Brown University, Providence, RI

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DF Schaeffer, KC Wiegand, M Cheung, A Kumar, HJ Lim, DG Huntsman  
Mount Sinai Hospital - University of Toronto, Toronto, ON, Canada; BC Cancer Agency, Vancouver, BC, Canada

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University of North Carolina, Chapel Hill, NC; Western Regional Hospital, Santa Rosa de Copan, Honduras

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SE Lee, DK Chang, S Kang, CK Park, K-M Kim  
Samsung Medical Center, Seoul, Korea

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BJ Swanson, WJ Grant, SJ Radio  
University of Nebraska Medical Center, Omaha, NE

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I Siddiqui, ZA Khan, S Chakrabarti  
London Health Sciences Center, London, ON, Canada; University of Western Ontario, London, ON, Canada

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WM Green, GJ Netto, C Griffin, L Morsberger, PB Iliei, X Zhou, P Argani  
The Johns Hopkins Hospital, Baltimore, MD

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S Sethi, D Kong, G Dyson, W Sakr, F Sarkar  
Wayne State University, Detroit, MI

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ND Gonzalez-Robon, A Chau, AO Osunkoya, T Al-Hussain, J Hicks, JI Epstein, GJ Netto  
The Johns Hopkins University SOM, Baltimore, MD; Emory University SOM, Atlanta, GA

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F Khani, JM Mosquera, K Park, A Srivastava, AK Tewari, MA Rubin, BD Robinson  
Weill Cornell Medical College, New York

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University of Minnesota, Minneapolis, MN

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MX Kong, X Zhao, E Kheterpal, P Lee, S Taneya, J Melamed, F-M Deng  
NYU Langone Medical Center, New York, NY; New York University School of Medicine, New York, NY

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C Wang, JP Maxwell, A Yilmaz, TA Bismar, K Trpkov  
Calgary Laboratory Services and University of Calgary, Calgary, Canada

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V Mehta, JJ Speiser, KM Muddalier, MM Picken  
Loyola Univ Med Ctr, Maywood, IL  

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CE Gooden, CK Kovach, PT Nieh, AO Osunkoya  
Emory University School of Medicine, Atlanta

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L Ehsani, A Seth, AO Osunkoya  
Emory University School of Medicine, Atlanta; Sunnybrook Health Sciences Center, Toronto, Canada
130 ERG Expression in Mucinous Prostatic Adenocarcinoma and Prostatic Adenocarcinoma with Mucinous Features: Comparison with Conventional Prostatic Adenocarcinoma (900)
   H Johnson, M Zhou, AO Osunkoya
   Emory University School of Medicine, Atlanta; Cleveland Clinic Foundation, Cleveland

131 ERG vs. Alpha-Methylacyl-CoA Racemase Expression in Histologic Variants of Adenocarcinoma of the Prostate (872)
   S Gottipati, J Hudson, P Humphrey
   Washington University, Saint Louis, MO

132 Telomere Shortening Distinguishes Inverted Papilloma of the Urinary Bladder from Urothelial Carcinoma with Inverted Growth (1060)
   SR Williamson, S Zhang, A Lopez-Beltran, R Montironi, L Cheng
   Indiana University School of Medicine, Indianapolis; Cordoba University, Cordoba, Spain; Polytechnic University of the Marche Region (Ancona), Ancona, Italy

133 Prognostic Relevance of mTORC1 Pathway Components in Papillary Renal Cell Carcinoma (914)
   M Kherad Pezouh, D Rakheja, RF Yousser, Y Lotan, V Margulis, P Kapur
   University of Texas Southwestern Medical Center, Dallas, TX

134 Evaluation of Erg Expression in Isolated High Grade Prostatic Intraepithelial Neoplasia (HGPIN) and Benign Prostate Glands (1017)
   JN Stall, N Palanisamy, J Siddiqui, AM Chinnaiyan, SA Tomlins, LP Kunju
   University of Michigan, Ann Arbor, MI

135 Impact of Histologic Cystic Features in Clear Cell RCC (CCRCC) and Multilocular Cystic RCC (MCRC) or Shall We Say – Neoplasm of Low Malignant Potential? (1031)
   M Tretiakova, V Mehta, SS Shen, SJ Sirintrapun, JL Yao, I Alvarado-Cabreiro, SE Eggenger, AL Shalhav, T Antic, MM Picken, GP Paner
   University of Chicago, Chicago; Loyola University Medical Center, Maywood; Methodist Hospital, Houston; Wake Forest University, Winston Salem; University of Rochester, Rochester; National Medical Center, Mexico City, Mexico

136 Differential Expression of the Transferrin Receptor in Renal Cell Neoplasms: A Novel Marker of Aggressive Behavior (1011)
   NM Shillingford, S Lu, S Mangray, R Tavares, MB Resnick, E Yakirevich
   Warren Alpert Medical School of Brown University and Rhode Island Hospital, Providence, RI

137 Subcellular Localization of DC-SCRIPT Correlates with Histologic Type, Grade and Stage of Renal Cell Carcinomas (RCC) (917)
   K-A Kim, JL Garbaini, RN Al-Rohil, CE Sheehan, RP Kauffman, JS Ross, A Hayner-Buchan
   Albany Medical College, Albany, NY

138 Subcellular Localization of Gli-1 Correlates with Histologic Type, Grade and Stage of Renal Cell Carcinoma (RCC) (783)
   RN Al-Rohil, K-A Kim, J Garbaini, CE Sheehan, RP Kauffman, JS Ross, A Hayner-Buchan
   Albany Medical College, Albany, NY

139 CDX-2 Expression in Malignant Germ Cell Tumors of the Testes, Intratubular Germ Cell Neoplasia and Normal Seminiferous Tubules (930)
   MJ Lee, AP Vogt, AO Osunkoya
   Emory University School of Medicine, Atlanta

140 Functional Distinction between the Full-Length Human Androgen Receptor and Its Splicing Variants in Castration-Resistant Prostate Cancer (891)
   R Hu, C Lu, AM De Marzo, WB Isaacs, J Luo
   University of Wisconsin, Madison, WI; The Johns Hopkins University, Baltimore, MD

141 KRAS Mutation Is Present in a Small Subset of Primary Urinary Bladder Adenocarcinomas (779)
   RE Alexander, A Lopez-Beltran, R Montironi, GT MacLennan, GR Chen, KM Post, SA Bilho, JD Sen, K Meehan, A Cornel, L Cheng
   Indiana University School of Medicine, Indianapolis, IN; Cordoba University, Cordoba, Spain; Polytechnic University of the Marche Region (Ancona), United Hospitals, Ancona, Italy; Case Western Reserve University, Cleveland, OH; First Affiliated Hospital of Wenzhou Medical College, Wenzhou, China

142 Renal Cell Carcinoma before and after Sunitinib Therapy. Morphological and Molecular Changes (835)
   R Doshi, M O’Donnell, A Box, L Beltran, A Sahdev, J Peters, DJ Harrison, GD Stewart, T Powles, DM Berney
   Barts Cancer Institute, London, United Kingdom; University of Edinburgh, Edinburgh, United Kingdom; Whippis Cross Hospital, London, United Kingdom; Netherlands Cancer Institute, Amsterdam, Netherlands

143 MicroRNA Expression Analysis Suggests Genetic Similarity among Urachal Adenocarcinoma Morphologic Variants (804)
   ML Bissonnette, T Stricker, M Tretiakova, R Jimenez, GA Barkan, V Mehta, S Sirintrapun, G Steinberg, K White, G Paner
   University of Chicago, Chicago, IL; Mayo Clinic, Rochester, MN; Loyola University Medical Center, Maywood, IL; Wake Forest University, Winston-Salem, NC

144 Primary Benign Vascular Tumors and Tumor-Like Lesions of the Kidney: A Clinicopathologic Analysis of 16 Cases (949)
   V Mehta, V Ananthanarayanan, T Antic, T Krausz, G Venkataraman, MM Picken
   Loyola University Medical Center, Maywood; University of Chicago, Chicago

145 p63 Immunohistochemistry in Histologic Variants of Urothelial Cell Carcinoma (919)
   J Klapper, G-Q Xiao, PD Unger
   The Mount Sinai Medical Center, New York, NY

146 Pathological Analysis of Testicular Germ Cell Tumor with Metastasis in Retropertioneal Lymph Nodes (1026)
   WP Tarrant, BA Czerniak, CC Guo
   UT MD Anderson Cancer Center, Houston, TX

147 Decreased Stromal Androgen Receptor Expression in African-Americans with Prostate Cancer (878)
   CS Hale, MX Kong, Q Ren, Y Li, S Krauter, I Chiriboga, J Osman, V Reuter, R Wieczorek, J Melamed, P Lee
   NYU Langone Medical Center, New York; Memorial-Sloan Kettering Cancer Center, New York

148 Non-Invasive Papillary Urothelial Neoplasms of the Bladder: A Study of Tumors with Borderline Features (968)
   JN Stall, N Palanisamy, J Siddiqui, AM Chinnaiyan, SA Tomlins, LP Kunju
   University of Michigan, Ann Arbor, MI

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149 LMP2: An Immunohistochemical Marker for the Differential Diagnosis of Renal Oncocytoma and Chromophobe Renal Cell Carcinoma Eosinophilic Variant (1073)
G Zheng, A Chaux, R Sharma, G Netto, P Caturegli
Johns Hopkins Hospital, Baltimore, MD

150 Expression of Parafibromin in Renal Tumors and Its Potential Correlation with Tumor Prognosis (827)
C Cui, P Lal, Y Ma, JE Tomaszewski, Z Bing
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151 Expression of DC-SCRIPT/ZNF366 Protein in Prostatic Adenocarcinomas (PACS): DC-SCRIPT Signaling Is Associated with High Tumor Grade, Advanced Stage and Biochemical Disease Recurrence (955)
W Mneimneh, BVY Kallakury, GM Sheehan, M Feuerstein, CE Sheehan, HAG Fisher, RP Kaufman, T Naezer, JS Ross
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152 Microsatellite Instability in Prostatic Adenocarcinoma: Association with a Mucinous Phenotype (885)
CS Friedman, DJ Pisapia, P Ghosh, MM Shevchuk
NYP-Weill Cornell Medical College, New York, NY; NYP-Columbia University Medical Center, New York, NY; Maimonides Medical Center, Brooklyn, NY

153 Prognostic Relevance of mTORC1 Pathway Components in Chromophobe Renal Cell Carcinoma (918)
T Kinard, D Rakheja, RF Youssef, Y Lotan, V Margulis, J Sugianto, P Kapur
University of Texas Southwestern, Dallas, TX

154 Identification and Validation of Immunohistochemical Markers To Discriminate Urothelial Carcinoma Invading the Prostatic Fibromuscular Stroma vs In-Situ Tumor of the Prostatic Ducts (847)
EJ Fichtenbaum, WL Marsh, DL Zynger
The Ohio State University, Columbus

155 Intraoperative Frozen Section Evaluation of Ureteral and Urethral Margins: Studies of 212 Consecutive Radical Cystoprostatectomies for Men with Bladder Urothelial Carcinoma (1078)
H Zhou, JY Ro, LD Truong, AG Ayala, SS Shen
The Methodist Hospital, Weill Medical College of Cornell University, Houston, TX

156 Microvascular Pericyte Density Predicts Prostate Cancer Progression (969)
U Ozerdem, EM Wajcik, C Ershahin, GA Barkan
Loyola University Medical Center, Chicago, IL

157 Nephrogenic Adenoma: An Immunohistochemical Study (985)
W Quinones, A Zieber, Y Yao, Z Bing
Hospital of University of Pennsylvania, Philadelphia, PA

158 Mitochondria Respiratory Chain Gene Expression Analysis in Renal Cell Carcinoma (1047)
BA Walter Rodriguez, VA Valera Romero, M Linehan, MJ Merino
NCI/NIN, Bethesda; NCI/NIH, Bethesda

159 Utility of Triple Antibody Cocktail Stain in Radical Prostatectomy Specimens with Crushed Surgical Margins (934)
G Li, N Al Daoud, AJ Evans, TH Van der Kwast
University Health Network, Toronto, Canada; Jordan University of Science and Technology, Irbid, Jordan

Utility of Minichromosome Maintenance Protein 2 (MCM 2) and Topoisomerase II-alpha (TOP2A) Immunohistochemical Staining in the Diagnosis of Neoplastic and Non-Neoplastic Urothelial Lesions (909)
S Kerkoutian, JY Rao, SK Apple, D Lu, G Galliano, NA Moatamed
University of California Los Angeles, Los Angeles, CA

SalI4 and SF-1 Are Sensitive and Specific Markers for Distinguishing Granulosa Cell Tumors from Yolk Sac Tumors (793)
S Bai, S Wei, A Zieber, Y Yao, Z Bing
Hospital of the University of Pennsylvania, Philadelphia, PA; University of Alabama at Birmingham, Birmingham, AL

Androgen Receptor in Tumor and Stroma in Conservatively Treated Prostate Cancer (898)
SS, Jeetle, ZH Yang, E Stankiewicz, G Fisher, C Cooper, CS Foster, H Moller, P Scardino, VE Reuter, J Cuzick, D Berney
Barts Cancer Institute, London, United Kingdom; Memorial Sloan-Kettering Cancer Center, New York; Royal Marsden Hospital, Surrey, United Kingdom; Liverpool University Hospital, Liverpool, United Kingdom; Kings College London, London, United Kingdom

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JM Hawkings, RC Heinzeelm, J Jaffe, FU Garcia
Drexel University College of Medicine, Philadelphia, PA

Does Increasing Fuhrman Nuclear Grade Reflect Evolving Epithelial-Mesenchymal Transition in Clear Cell Renal Cell Carcinoma? (824)
JL Conant, Z Peng, MF Evans, S Naud, K Cooper
University of Vermont College of Medicine, Burlington, VT

Correlation between ERG Fusion Protein and Androgen Receptor Expression in Prostate Cancer; Possible Role in Diagnosis and Therapy (963)
AH Navaei, PP Aung, BA Walter, P Pinto, MJ Merino
NCI/NIH, Bethesda

Zonal Distribution of Neuroendocrine Cells (NECS) within Prostates (PR) with Prostatic Carcinoma (PCA) (867)
Y Gong, SM Cavone, FU Garcia
Drexel University College of Medicine, Philadelphia, PA

Comparison of mTORC1 Pathway Immunoeexpression between Chromophobe Renal Cell Carcinoma and Renal Oncocytoma (1019)
JJ Sugianto, D Rakheja, RF Youssef, Y Lotan, V Margulis, T Kinard, P Kapur
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Hôpital Européen Georges Pompidou, Université Paris-Descartes, Paris, France; Centre National de la Recherche Scientifique (CNRS), Unité Mixte de Recherche (UMR 554) et Université, Montpellier, France

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DP Ng, RR Bennett, F Lansigan, NB Levy, AV Danilov, P Kaur
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J Jaso, CC Yin, CE Jabchuga, LJ Medeiros, L Chen

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AG Freud, A Monabati, G Roncador, G Gualco, C Bacic, Y Natkunam

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UCLA, David Geffen School of Medicine, Los Angeles, CA

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University of Pittsburgh School of Medicine, Pittsburgh, PA

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K Moser, ME Salama, JL Kohan, SR Tripp, DW Bahl, SL Perkins

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Columbia University Medical Center, New York, NY

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University of South Florida College of Medicine, Tampa, FL; H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL

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Massachusetts General Hospital, Boston; Weill Cornell Medical College, New York; Institut Universitaire de Pathologie, Lausanne, Switzerland

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Baylor College of Medicine, Texas Children’s Hospital, Houston, TX; The University of Texas M.D. Anderson Cancer Center, Houston, TX

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Stanford University, Stanford, CA

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Mayo Clinic, Rochester, MN

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Emory U, Atlanta; Showa U, Tokyo, Japan; MSKCC, New York; WSU, Detroit; UPMC, Pittsburgh; UCSF, San Francisco; Piedmont Hospital, Atlanta

270 Cellular Prion Protein Regulates Notch1 Expression in Pancreatic Ductal Carcinoma (1851)
X Hao, X Huang, L Zhang, J Zhou, W Xin
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271 Overexpression of Transcriptional Intermediary Factor 1 Gamma (TIF1g) and Loss of SMAD4 Are Common Events but Are Not Correlated with Each Other in Pancreatic Ductal Carcinoma (1860)
L Lee, M Ligr, H Wang, C Hajdu, Z Pei, R Xu
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M Lew, T Hong, V Deshpande
Massachusetts General Hospital, Boston, MA

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Massachusetts General Hospital, Boston, MA

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YX Schmidt, BK Kleinschmidt-DeMasters, DL Aisner, KO Lillehei, D Damek
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CM Ida, KJ Minehan, SM Jenkins, NN Laack, BW Scheithauer, CGJ Giannini
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J Yuan, K Gu, S Sharma
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University of Texas Medical Branch, Galveston, TX

280 aPKC-Dependent EGFR and NF-kB Signaling Co-Operate To Promote Glialblastoma Invasion (1810)
AS Perry, Y Kusne, M Jabbour, E Mandell, W McDonough, K Aldape, ME Berens, JC Loftus, EJ Rushing, S Ghosh
Brigham and Women’s Hospital, Boston, MA; Barrow Neurological Institute/St. Joseph’s Hospital, Phoenix, AZ; Arizona State University, Tempe, AZ; The University of Arizona, Tucson, AZ; Translational Genomics Research Institute, Phoenix, AZ; MD Anderson Cancer Center, Houston, TX; Mayo Clinic Arizona, Scottsdale, AZ; Armed Forces Institute of Pathology, Washington, DC

281 Differential Regulation of Expression of ER Stress Proteins by BRCA1 during Ovarian Follicular Development (1923)
E Enhom, Y Liu, A Lee, L Dueau
University of Southern California, Los Angeles, CA; Harbor-UCLA, Torrance, CA

282 Spleen Is Indispensable for Lymphomagenesis in a Notch-Driven Acute T-Cell Lymphoblastic Leukemia/Lymphoma (T-ALL) Murine Model (1921)
Y Ding, H Xiong, JJ Laflaile
New York University Langone Medical Center, New York, NY

283 Anti-Tn Antibody Specifically Recognizes Neoplastic Lesions (1946)
SR Stowell, C Gooden, C Cohen, T Ju, RD Cummings
Emory University, Atlanta, GA

284 Tumor Suppressor eIF3f Inhibits Translation by Regulating rRNA Degradation (1943)
J Shi, F Wen, R Zhou, A Shen, A Choi
University of Arizona, Tucson, AZ; Fifth People’s Hospital of Shanghai, Shanghai, China

285 Mannose-Binding Lectin: Analysis of Structural Gene Mutations, Promoter Polymorphisms and Serum Protein Concentrations in a Large Population of Organ Transplant Patients (1945)
HL Stevenson, A Amador, J McCue, G Ciancio, L Chen, A Mattiacci, J Sageshima, G Guerra, W Kapin, G Burke III, S Pham, A Tsakis, P Ruiz
University of Texas Medical Branch, Galveston, TX; UM Miller School of Medicine, Miami, FL

286 Evaluation of MAP-Kinase Pathway in Sinonasal Melanomas (1932)
CP Kragel, T Isayeva, P Devilliers, A Andea
University of Alabama at Birmingham, Birmingham, AL

287 Loss of Function of the Circadian Clock Gene Period Promotes the Development of Intestinal Tumors in Aging Flies (1918)
CK Chen, MA Roberts, FR Jackson, RN Salomon,
Tufts Medical Center, Boston, MA; Tufts University School of Medicine, Boston, MA

PULMONARY

288 Morphologic and Molecular Features of Primary Lung Adenocarcinomas That Metastasize to Brain (1987)
PP Gopal, CD Watt, V Atikawa, A Vachani, R Rengan, J Kucharczuk, C Langer, S Albelda, V VanDeerlin, J Morrissette, MD Feldman, LA Litzy, CG Deshpande
University of Pennsylvania, Philadelphia; U Penn, Philadelphia

289 Presence of Epidermal Growth Factor Receptor (EGFR) Mutation Predicts a Lower Grade Morphology and Lower AJCC Stage in Patients with Lung Adenocarcinoma (2050)
C Villa, A Yeldandi, R Nayar, P Cagle, K Raparia
Northwestern University, Chicago, IL; The Methodist Hospital, Houston, TX

290 Epigenetic Regulation of BCL2-Associated X Protein in Neuroendocrine Lung Tumors (2007)
I Lamzabi, R Jain, L Buckingham, P Bitterman, VB Reddy, M Batus, P Gattuso
Rush University Medical Center, Chicago, IL
Immunohistochemistry May Not Be a Reliable Screening Tool
Utility of PAX-8, CD117 and CD5 in Distinguishing Thymic Usual Interstitial Pneumonia with Granuloma. Idiopathic
Optimizing Lung Carcinoma Diagnosis: FNA, Core, or Both
Association of KRAS Mutation in Non Small Cell Lung Cancer
Comparison of EGFR and KRAS Mutations between Pre- and Post-Chemotherapy Groups in Primary and Metastatic Lung Adenocarcinomas
Selection of Samples for Epidermal Growth Factor Receptor (EGFR) Mutation Analysis in Non-Squamous Non-Small Cell Lung Carcinoma from Poorly Differentiated Lung Carcinoma
Immunohistochemistry May Not Be a Reliable Screening Tool for Identification of ALK Rearrangement (ALKR) in Non-Small Cell Lung Carcinoma (NSCLC)
Central and Peripheral Squamous Cell Carcinoma of the Lung. Are They Different?
Selection of Samples for Epidermal Growth Factor Receptor (EGFR) Mutation Analysis in Non-Squamous Non-Small Cell Lung Carcinoma
A Comparative Study of Tissue Microarray (TMA) Versus Conventional Immunohistochemistry (IHC) for Evaluation of Mismatch Repair (MMR) Systems in Colorectal Cancers (CRCs) (2069)
S Brownschidle, M Evans, T Ashikaga, A Iyer
Fletcher Allen Health Care, Burlington, VT

TECHNIQUES

Targeted Mutation Analysis of Endometrial Cancer Using a Custom Sequenom® MassARRAY Panel: A Proof-of-Principle Study (2142)
SE Kerr, LM Holtegaard, LM Peterson, F Medeiros, A Mariani, WE Highsmith, BR Kipp, KC Halling
Mayo Clinic, Rochester, MN

Improved Detection of the BRAF c.1799T>A (p.V600E) Mutation in Melanoma with a Single Nucleotide Primer Extension Assay (2134)
GC Caponetti, E Racila, A Stence, J Priessner, S Forde, J Hackman, D Ma, J Heusel, A Bossler
University of Iowa Hospitals and Clinics, Iowa City, IA

Diagnostic Accuracy and Efficiency of Whole Slide Digital Imaging in Medical Liver Disease (2149)
MS Ryan, ML Smith, PJ Boyer, JR Burton, SS Raab
University of Colorado, Aurora, CO; Mayo Clinic Arizona, Scottsdale, AZ; Memorial University of Newfoundland, St. John’s, NL, Canada

Multispectral Cytomorphometric Analysis with Receiver Operating Characteristic Analysis: A Mathematical Approach to Anatomic Pathology Applied to the Study of Barrett Esophagus (2144)
SH Lee, EE Furth
Hospital of the University of Pennsylvania, Philadelphia

The Cytocentrifugation of Supernatant Fluid from Thyroid Nodule Fine-Needle Aspirates Provides Analyzable DNA Suitable for Molecular Analysis (2133)
SJ Bokhari, JF Silverman, SD Finkelstein, U Krishnamurti, Y Liu, B Ujevich, C Binkert, A Mohanty
Allegheny General Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Pittsburgh, PA

ULTRASTRUCTURAL

Renal Disease with Underlying Mitochondrial DNA Mutations in Three Patients Lacking Electron Microscopic Mitochondrial Morphologic Abnormalities (2170)
LN Cossey, CP Larsen, HD Massey, TE Bunchman
University of Arkansas for Medical Sciences, Little Rock, AR; Nephropath, Little Rock, AR; Virginia Commonwealth University Medical Center, Richmond, VA
Bogdan Czerniak, MD, PhD, is Professor of Pathology and Chairman, ad interim, of the Department of Pathology in the Division of Pathology and Laboratory Medicine at The University of Texas MD Anderson Cancer Center. He holds The Nathan W. Lassiter Distinguished Chair in Urology and is Deputy Division Head for Research. Dr. Czerniak is a surgical pathologist with expertise in genitourinary tumors and sarcomas of soft tissue and bone who combines his diagnostic practice with an active NCI-funded laboratory research program.

Dr. Czerniak’s laboratory research focuses on early events of carcinogenesis using human bladder cancer as a model disease. His laboratory is credited with the development of a unique strategy that combines whole organ topographic histologic and molecular mapping. This approach has provided unique information on initiating cancer events associated with the development of the so-called field effect. Dr. Czerniak has provided evidence for the existence of a novel class of genes, termed forerunner genes, which are located near major tumor suppressors and contribute to early expansion of intraurothelial neoplasia by their loss of function. The silencing of forerunner genes results from a combination of loss of genetic material and hypermythelation or mutation of the remaining allele. Although forerunner genes were identified and validated in human bladder cancer, initial evidence suggests that they may play a broader role in the development of many other human cancers as well.

The paradigm-shifting concept of forerunner genes postulates that their loss of function is critical for the development of the initial clonal expansion of cancer precursor lesions. Accordingly, inactivation of forerunner genes appears to occur before the loss of major tumor suppressors. The mapping evidence and the initial functional studies of forerunner genes were published in two seminal articles in the Proceedings of the National Academy of Sciences and Laboratory Investigation. More recently, these studies have been extended to total genomic profiling and genomic sequencing, providing more detailed information on the complexity of genomic changes involved in the initiation of cancer.

Dr. Czerniak is also an international expert on bone cancers and published, together with his longtime collaborator and mentor Dr. Howard Dorfman, the textbook Bone Tumors, currently in revision for a 2nd edition. This textbook is considered by many to be the primary reference for pathologists confronted with vexing diagnostic problems of these rare and enigmatic skeletal conditions. Dr. Czerniak has authored over 150 peer-reviewed research articles and multiple textbook chapters addressing various aspects of molecular pathogenesis and diagnosis of human cancer.

Dr. Czerniak has been the recipient of many awards, including the Margaret and James A. Elkins, Jr. Faculty Achievement Award in Cancer Prevention from the University of Texas MD Anderson Cancer Center in 2004, the Gordon Conference Award for New Frontiers in Cancer Detection and Diagnosis in 2005, and the Dr. Robert D. & Alma W. Moreton Original Research Award from the Southern Medical Association in 2010.

Beyond his basic science research program and clinical surgical pathology practice, Dr. Czerniak plays a leading role in the educational programs at his home institution, serving as the co-director of the Annual Diagnostic Pathology Review Course and the annual Pathology of the 21st Century Conference. He is actively involved in restructuring the conventional educational program in surgical pathology as one the Principal Investigators of an NCI funded T32 grant awarded for the development of a pathology fellowship combining diagnostic skills in conventional oncologic surgical pathology with integrated training in genomic profiling approaches in support of targeted therapy in cancer medicine.
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<th>Time</th>
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<th>Institutions</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Overall Survival after Radical Cystectomy for Bladder Cancer Using the New AJCC Pathologic Classification for Prostatic Stromal Invasion (977)</td>
<td>AR Patel, MC Large, S Prasad, JA Cohn, A Tatjana, JB Taxy, ND Smith, GD Steinberg, GP Paner</td>
<td>University of Chicago, Chicago, IL</td>
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<tr>
<td>1:15</td>
<td>Depth of Invasion of Urinary Bladder Cancer: Comparison of Direct Measurement Versus 2010 American Joint Committee on Cancer (AJCC) pT2 and 3 Classification (1072)</td>
<td>S Zarei, J Frank, SA Boorjian, S Kim, CJ Weight, R Tarrell, P Thapa, JC Cheville</td>
<td>Mayo Clinic, Rochester, MN</td>
</tr>
<tr>
<td>1:30</td>
<td>Retrospective Analysis of Survival in Muscularis Propria-Invasive Bladder Cancer (828)</td>
<td>AM D’Souza, KS Pohar, T Arif, S Geyer, DL Zynger</td>
<td>The Ohio State University Medical Center, Columbus, OH</td>
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<tr>
<td>1:45</td>
<td>Tumor Regression after Neoadjuvant Chemotherapy Independently Predicts Survival in Bladder Cancer Patients (852)</td>
<td>A Fleischmann, A Perren, GN Thalmann, R Seiler</td>
<td>University of Bern, Bern, Switzerland</td>
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<tr>
<td>2:00</td>
<td>Do Adenocarcinomas of the Prostate with Gleason Score (GS) ≤6 Have the Potential To Metastasize to Lymph Nodes? (997)</td>
<td>HM Ross, ON Kryvenko, JP Simko, TM Wheeler, JI Epstein</td>
<td>The Johns Hopkins Hospital, Baltimore</td>
</tr>
<tr>
<td>2:15</td>
<td>Relation of Primary Gleason Pattern 3 or 4 in Prostate Needle Biopsy to Pathological Stage and Progression after Radical Prostatectomy (785)</td>
<td>A Amin, JI Epstein</td>
<td>The Johns Hopkins Hospital, Baltimore</td>
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<td>2:30</td>
<td>Gleason Pattern 5 Is Frequently Underdiagnosed on Prostate Needle Core Biopsy (780)</td>
<td>T Al-Hussain, MS Nagar, JI Epstein</td>
<td>The Johns Hopkins Hospital, Baltimore</td>
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<td>2:45</td>
<td>Prognostic Gleason Grade Grouping: Data Based on the Modified Gleason Scoring System (839)</td>
<td>JI Epstein, PC Walsh, AW Partin</td>
<td>The Johns Hopkins Hospital, Baltimore</td>
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<td>3:00</td>
<td>RECESS, EXHIBITS, POSTER SESSION II</td>
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### Section B - Breast

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<th>Institutions</th>
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<tr>
<td>1:00</td>
<td>Biopsy Outcomes in Screen Detected Microcalcifications (146)</td>
<td>G Farshid, T Sullivan, P Downey, G Gill, S Pieterse</td>
<td>BreastScreen SA, Wayville, SA, Australia; SA Pathology, Adelaide, SA, Australia; University of Adelaide, Adelaide, SA, Australia</td>
</tr>
<tr>
<td>1:15</td>
<td>Predictors of Local Recurrence (LR) in Patients with Ductal Carcinoma In Situ (DCIS) Treated by Breast Conserving Therapy (BCT): Value of the Memorial Sloan-Kettering (MSK) Nomogram (118)</td>
<td>LC Collins, N Achacoso, Z Sharafati, R Haque, I Nekhlyudov, SW Fletcher, CP Quesenberry, LA Habel, SJ Schnitt</td>
<td>Beth Israel Deaconess Medical Center, Boston; Harvard Medical School, Boston; Kaiser Permanente, Northern CA, Oakland; Kaiser Permanente, Southern CA, Pasadena; Harvard Vanguard Medical Associates, Boston</td>
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<tr>
<td>1:30</td>
<td>c-MET Overexpression Is Associated with Breast Cancer Distant Metastasis and Loco-Regional Recurrence (95)</td>
<td>JP Bergeron, HT Richard, JA Almenara, MO Idovu</td>
<td>Virginia Commonwealth University, Richmond, VA</td>
</tr>
<tr>
<td>1:45</td>
<td>Contralateral Breast Cancer Risk Following a Diagnosis of Ductal Carcinom In Situ (101)</td>
<td>FI Boulos, JF Simpson, PA Schuyler, WD Dupont, DL Page, ME Sanders</td>
<td>American University of Beruit, Beruit, Riad El Solh, Lebanon; Vanderbilt University, Nashville, TN</td>
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<td>2:00</td>
<td>Efficacy of Axillary Ultrasound Pre-Screening in Relation to Pathologic Parameters of Breast Carcinoma (295)</td>
<td>RJ Wolksy, CB Bills, H Sattar</td>
<td>University of Chicago, Chicago, IL</td>
</tr>
<tr>
<td>2:15</td>
<td>Internal Impact of ACOSOG Z0011 at a Tertiary Academic Center (169)</td>
<td>D Jaggersarsingh, B Harmon, B O’Hea, P Farrelly, R Christine, T Carmen, M Singh</td>
<td>Stony Brook University Medical Center, Stony Brook, NY</td>
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<tr>
<td>2:30</td>
<td>Multicentric Comparative Study between One-Step Nucleic Acid Amplification (OSNA) Whole Node Assay and Standard Histology for Breast Sentinel Lymph Node: Molecular Assay Can Avoid Secondary Surgeries and Predict No Other Node Involvement (258)</td>
<td>I Sansano, M Espinosa, C Iglesias, M Aizpurua, M Sancho, C Garcia, I Rubio, S Ramon y Cajal, V Peg</td>
<td>H. U. Vall d’Hebron, Barcelona, Spain; H. de Salamanca, Salamanca, Spain</td>
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</tbody>
</table>
2:45  Lumpectomies for DCIS without Sentinel Node Biopsy – Patient Selection and 5 Year Follow-Up (230)
RK Patel, ML Cibull, PC McGrath, WR Heather, EA Pirruccello, VV Krol, YM Brill, LM Samaya
Univerity of Kentucky, Lexington, KY

3:00  RECESS, EXHIBITS, POSTER SESSION II

PROFFERED PAPERS
Monday, March 19, 2012
1:00 - 3:00 PM
CC 211-214

Section C - Hematopathology
Chaired by: Robert Hasserjian and Jeffrey Jorgensen
1:00  Post-Polycytemic and Primary Myelofibrosis Display Different Morphologic and Karyotypic Features (1364)
L Boiocchi, U Gianelli, A Iurlo, T Radice, A Orazi
Weill Cornell Medical College, New York, NY; Universita’ di Milano, IRCCS Ca’ Granda-Ospedale Maggiore Policlinico, Milano, Italy

1:15  Specific Criteria Improve Interobserver Reproducibility in Myeloproliferative Neoplasm (MPN) Megakaryocyte Morphologic Assessment (1538)
N Sangle, R Schmidt, R Miles, J Prchal, S Perkins, A Orazi, M Salama
University of Utah, Salt Lake City, UT; Weill Cornell Medical Center, New York City, NY

1:30  Myelodysplastic Syndrome/Acute Myeloid Leukemia with t(3;21)(q26;q22) Are Commonly Therapy Related Diseases Associated with Poor Outcome (1472)
S Li, CC Yin, LJ Medeiros, G Lu, P Lin
UT MD Anderson Cancer Center, Houston, TX

1:45  B-Lymphoblastic Leukemia/Lymphoma Occurring in Patients with a History of Malignancy: Is It Therapy-Related? (1572)
G Tang, Z Hu, Y Li, M Parthasarathy, AR Kini, PJ Stiff, G Venkataraman
Loyola University Medical Center, Maywood, IL

2:00  Notch/HES1 and PARP1 Protein Co-Expression among B-Lymphoblastic Leukemia/Lymphoma Patients (pts) Predicts Good Prognosis (1487)
University of Calgary, Calgary, AB, Canada; Tom Baker Cancer Centre, Calgary, AB, Canada

2:15  CD123 Immunohistochemical Expression in Acute Myeloid Leukemia Is Associated with FLT3-ITD but Not NPM1 Mutations (1532)
MA Rollins-Raval, RK Pillai, M Djokic, JA Kant, CG Roth
University of Pittsburgh School of Medicine, Pittsburgh, PA

2:30  Prognostic Impact of WT1 Protein Expression on Overall Survival in De-Novo Acute Myeloid Leukemia (AML) with Normal Cytogenetics (1419)
University of Calgary/Calgary Laboratory Services (CLS), Calgary, AB, Canada; University of Calgary, Calgary, AB, Canada; University of Calgary, Calgary, AB, Canada

2:45  Marrow Hematogones as a Percent of B-Lymphocytes Correlates with Event-Free Survival (EFS) after Allogeneic Bone Marrow Transplant (1555)
P Sojitra, Z Hu, Y Li, M Parthasarathy, AR Kini, PJ Stiff, G Venkataraman
Loyola University Medical Center, Maywood, IL

RECESS, EXHIBITS, POSTER SESSION II

PROFFERED PAPERS
Monday, March 19, 2012
1:00 - 3:00 PM
CC Ballroom D

Section D - Pulmonary
Chaired by: Sanjay Mukhopadhyay and James Suh
1:00  Adenocarcinoma In Situ, Minimally Invasive Adenocarcinoma and Invasive Pulmonary Adenocarcinoma – Evaluation of Interobserver Agreement in 294 Nodules with Survival Analysis (1972)
JM Boland, JA Wampfler, P Yang, MC Aubry, M de Andrade, ES Yi
Mayo Clinic, Rochester, MN

N Motoi, W Hamanaka, T Oba, S Karita, H Ono, Y Saito, S Sato, K Inamura, S Okumura, Y Ishikawa
Japanese Foundation for Cancer Research, JFCR, Tokyo, Japan; The Cancer Institute Hospital of JFCR, Tokyo, Japan; The Cancer Institute Hospital of JFCR, Tokyo, Japan

1:30  Molecular Versus Histopathologic Staging of Lung Adenocarcinoma with Multiple Tumor Nodules (2046)
NT Beaubier, MM Mansukhani, AC Borczuk
Columbia University Medical Center, New York, NY

1:45  Met Activation Is Associated with Unique Clinicopathologic and Molecular Features in Lung Adenocarcinoma (2046)
LM Sholl, AJ Iafrate, M-T Wu, A Ligon, PA Janne, DC Christiani, M Loda, LR Chirieac
Brigham and Women’s Hospital, Boston; Massachusetts General Hospital, Boston; Kaohsiung Medical University, Kaohsiung, Taiwan; Dana Farber Cancer Institute, Boston

NATHAN KAUFMAN TIMELY TOPICS LECTURE
Bogdan Czerniak, MD, PhD
The Cancer Genome: A Step Towards Personalized Therapy
4:30 – 5:30 PM CC Ballroom A-D
Resolving the Controversy on EGFR/KRAS Mutations in Pulmonary Squamous Cell Carcinoma Via Comprehensive Pathologic Assessment Incorporating Immunohistochemistry (2032)

N Rekhtman, PK Paik, ME Arcila, LJ Tafe, GR Oxnard, AL Moreira, TD William, MF Zakowski, KG Mark, M Ladanyi
Memorial Sloan-Kettering Cancer Center (MSKCC), New York, NY; Dartmouth Hitchcock Medical Center, Lebanon, NH; Dana-Farber Cancer Institute, Boston, MA

Rationale for Treatment of Metastatic Squamous Cell Carcinoma of the Lung Using FGFR1 Inhibitors (1986)

F Goeke, A Franzen, R Mennon, V Scheble, D Goltz, R Kirsten, D Boehm, W Vogel, A Schroech, S Perner
University Hospital Bonn, Bonn, Germany; University Hospital Tuebingen, Tuebingen, Germany

Gene Expression Profiling of Lung Neuroendocrine (NE) Tumors Reveals Gene Clusters Correlated with Central Versus Peripheral Location for Carcinoids (2052)

H Wang, MS Roh, R Shen, J Zheng, G Sica, C Stock, I Sarkaria, M Pietanza, N Rekhtman, A Iyoda, V Rusch, W Travis
MSKCC, New York; Dong-A University College of Medicine, Busan, Korea; Emory University, Georgia; Kitasato University, Kanagawa, Japan; Weill Cornell Medical College, New York, NY

Massively Parallel Sequencing in NSCLC: Comparison to Traditional Hot Spot Analysis for Selection of Approved and Novel Targeted Therapies (2036)

J Ross, A Parker, M Jarosz, S Downing, R Yelensky, D Lipson, P Stephens, G Palmer, M Cronin, C Sheehan
Albany Medical College, Albany, NY; Foundation Medicine Inc., Cambridge, MA

How Many Needle Core Biopsies Are Needed to Comfortably Predict the Histologic Grade of Metastatic Well-Differentiated Neuroendocrine Tumors to the Liver? (1773)

Z Yang, LH Tang, DS Klimstra
Penn State Milton S. Hershey Medical Center, Hershey, PA; Memorial Sloan-Kettering Cancer Center, New York, NY

Fatty Liver Contributes to Hepatocarcinogenesis in Children with Nonalcoholic Fatty Liver Disease (NAFLD): A Different Disease Than Glycogenic Hepatopathy (1728)

CD Gay, EM Brunt, C Behling, M Torbenson, MM Yeh, P Belt, B A Neuenschwander-Tetri, KP Murray, DE Kleiner
Duke University, Durham, NC; Washington University, Saint Louis, MO; Sharp Hospitals, San Diego, CA; Johns Hopkins School of Medicine, Baltimore, MD; University of Washington, Seattle, WA; Johns Hopkins School of Public Health, Baltimore, MD; Saint Louis University School of Medicine, Saint Louis, MO; Seattle Children’s Hospital, Seattle, WA; National Institutes of Health, Bethesda, MD

Hepatic Glycogenosis in Children with Nonalcoholic Fatty Liver Disease (NAFLD): A Different Disease Than Glycogenic Hepatopathy (1728)

CD Gay, EM Brunt, C Behling, M Torbenson, MM Yeh, P Belt, B A Neuenschwander-Tetri, KP Murray, DE Kleiner
Duke University, Durham, NC; Washington University, Saint Louis, MO; Sharp Hospitals, San Diego, CA; Johns Hopkins School of Medicine, Baltimore, MD; University of Washington, Seattle, WA; Johns Hopkins School of Public Health, Baltimore, MD; Saint Louis University School of Medicine, Saint Louis, MO; Seattle Children’s Hospital, Seattle, WA; National Institutes of Health, Bethesda, MD

Plasma Cell Hepatitis in Post-Liver Transplant HCV-Infected Patients: The Columbia University Experience (1763)

J Saab, M Salomao, EC Verna, RK Moreira
American University Beirut, Beirut, Lebanon; Columbia University, New York, NY

The Deregulated Autophagy of Mitochondria May Be Involved in the Pathogenesis in Primary Biliary Cirrhosis (1768)

M Sasaki, M Miyakoshi, Y Sato, Y Nakanuma
Kanazawa University Graduate School of Medicine, Kanazawa, Japan

The p53 Negative Regulator MDM4 Is Amplified and Over-Expressed in Hepatoblastoma (1762)

A Roy, KU Patel, KL Hamilton, X Lu, MJ Finegold, DH Lopez-Terrada
Baylor College of Medicine, Houston, TX

Analysis of HPV Integration Sites in Oropharyngeal Squamous Cell Carcinomas (1329)

E-JM Speel, CU Huebbers, NC Olothof, J Kolligs, SF Preuss, U Drebber, B Kremer, JP Klussmann
Maastricht University Medical Center, Maastricht, Netherlands; University of Cologne, Cologne, Germany; University Hospital Giessen, Giessen, Germany

The Cancer Genome: A Step Towards Personalized Therapy

4:30 – 5:30 PM CC Ballroom A-D
Clear Cell Odontogenic Carcinomas Show EWSR1 Rearrangements: A Novel Finding & Biologic Link to Salivary Clear Cell Carcinomas (1281)

*EA Bilodeau, I Weinreb, S Dacic, S Muller, B Barker, RR Seethala*

University of Pittsburgh School of Dental Medicine, Pittsburgh, PA; University of Toronto, Toronto, ON, Canada; University of Pittsburgh, Pittsburgh, PA; Emory University, Atlanta, GA; University of Missouri-Kansas City, Kansas City, MO

Validation of Transcriptionally Active HPV in Salivary Mucoepidermoid Carcinomas (1322)

*Z Ren, R Li, T Isayeva, S Bai, N Said-Al-Naief, M Brandwein-Gensler*

University of Alabama at Birmingham, Birmingham, AL; University of the Pacific, San Francisco, CA

HPV-31 Is the Most Common HPV Subtype Isolated from Oropharyngeal Squamous Cell Carcinomas in South Africa (1318)

*C Paquette, MF Evans, S Meer, V Rajendran, CS Adamson, K Cooper*

Fletcher Allen Health Care, Burlington, VT; University of Vermont, Burlington, VT; University of the Witwatersrand, Johannesburg, South Africa

Human Papillomavirus-Related Carcinomas of the Sinonasal Tract (1282)

*JA Bishop, TW Guo, DS Smith, H Wang, SI Pai, WH Westra*

The Johns Hopkins Hospital, Baltimore, MD; Cleveland Clinic Lerner College of Medicine, Cleveland, OH

Activation of C-Jun N-Terminal Kinase Is Associated with Histological Grade of Mucoepidermoid Carcinoma (1343)

*H Zhong, A Omilian, C Morrison, B Xu*

Roswell Park Cancer Institute, Buffalo, NY

Grading of Head-Neck Squamous Dysplasia – A Multi-Institutional Study (1313)

*H Mani, M Richardson, R Seethala, J Lewis, J Hunt, E Schafer, H Crist*

PSMHC, Hershey; MUSC, Charleston; UPMC, Pittsburgh; WUSTL, St Louis; UAMS, Little Rock

Salivary Duct Carcinoma – Altered Pathways for Targeted Therapy (1286)

*C Chattopadhyay, ME Kupferman, MS Kies, MD Williams*

UT MD Anderson Cancer Center, Houston, TX

**NATHAN KAUFMAN TIMELY TOPICS LECTURE**

**Bogdan Czerniak, MD, PhD**

*The Cancer Genome: A Step Towards Personalized Therapy*

4:30 – 5:30 PM  CC Ballroom A-D

**PROFFERED PAPERS**

**Monday, March 19, 2012**

**1:00 - 3:00 PM**

**CC 223-224**

**Section G - Quality Assurance**

**Chaired by: Richard Zarbo and Daniel Arber**

1:00 Large Specimen Surgical Pathology Reporting Facilitated by Lean Workflow and Rapid-Cycle Microwave Processor (2125)

*RJ Zarbo, RC Varney, MJ Dib, B Mahar*

Henry Ford Hospital, Detroit, MI

1:15 Communicating Diagnostic Uncertainty in Surgical Pathology Reports: Disparities between Sender and Receiver (2096)

*SW Lindley, LA Hassell, EM Gillyes*

University of Oklahoma, Health Sciences Center, Oklahoma City, OK

1:30 Validation Study of Telepathology on Frozen Section Diagnosis in a Multi-Hospital Subspecialized Pathology Department (2124)

*W Yu, C Llanos, V Nose, C Gomez*

University of Miami Miller School of Medicine, Jackson Memorial Hospital, Sylvester Comprehensive Cancer Center, Miami, FL

1:45 Enhancing Patient Safety through Multi-Departmental Perioperative Surgical Specimen (2077)

*R D’Angelo, N Main, RJ Zarbo*

Henry Ford Hospital, Detroit, MI

2:00 Retrospective Blinded Review of Major Errors in Anatomic Pathology: Experience of a Tertiary Care Facility (2073)

*S Chaudhary, LB Kahn, T Bhuiya*

Hofstra-North Shore LIJ School of Medicine, Lake Success, NY


*LB Hardy, P Fitzgbibbons, J Goldsmith, R Eisen, M Beasley, R Souers, R Nakhle*

Beth Israel Deaconess Medical Center, Boston, MA; St. Jude Medical Center, Fullerton, CA; Greenwich Hospital, Greenwich, CT; The Mount Sinai Medical Center, New York, NY; The College of American Pathologists, Northfield, IL; The Mayo Clinic, Jacksonville, FL

2:30 Whole Slide Imaging Validation Using Cervical Biopsies Yields Significant Interobserver Variability for Low Grade Dysplasias (2083)

*SL Haley, MJ Thrall*

The Methodist Hospital, Houston, TX; Weill Cornell Medical College of Cornell University, New York, NY

RECESS, EXHIBITS, POSTER SESSION II
2:45 Reprocessing Unsatisfactory ThinPrep Papanicolaou Smears: A Tool for Reducing Unsatisfactory Rate and Enhancing Disease Detection (2092)
A Kovakovsky, C Steele, KK Khurana
SUNY Upstate Medical University, Syracuse, NY

3:00 RECESS, EXHIBITS, POSTER SESSION II

PROFFERED PAPERS
Monday, March 19, 2012
1:00 - 3:00 PM
CC 217-219

Section H - Endocrine
Chaired by: Vania Nose and Zubair Baloch

1:00 Folate Receptor Expression in Human Parathyroids: A Novel Finding with Imaging and Therapeutic Implications (612)
S Muller, RK Halkar, FK Villinger, K Im, SA Safy, J Sharma, CJ Weber
Emory University, Atlanta, GA

1:15 Somatostatin Receptor Subtype 2A Immunohistochemistry Using a New Monoclonal Antibody Selects Tumors Suitable for In Vivo Somatostatin Receptor Targeting (606)
M Korner, B Waser, A Schonbrunn, A Perren, JC Reubi
Institute of Pathology of the University of Berne, Berne, Switzerland; Health Science Center Houston, University of Texas, Houston, TX

1:30 Prognostic Implications of Papillary Thyroid Carcinoma with Tall Cell Features (593)
Memorial Sloan-Kettering Cancer Center, New York, NY

1:45 Effect of Subspecialty Sign-Out on the Diagnosis of Follicular-Patterned Thyroid Neoplasms (588)
DJ Chute, TM Elsheikh, AP Hoschar
Cleveland Clinic, Cleveland, OH

2:00 Colorectal Poorly Differentiated Neuroendocrine Carcinomas (NECs) and Mixed Adenoneuroendocrine Carcinomas (MANECs): Insights into the Diagnostic Immunophenotype and Search for Prognostic Markers (609)
S La Rosa, A Marando, C Capella
Ospedale di Circolo, Varese, Italy; University of Insubria, Varese, Italy

2:15 The Increase in Papillary Thyroid Cancer Incidence in the U.S. during the Last Four Decades Is Accompanied by a High and Stable Frequency of BRAF Mutations and a Sharp Increase in NRAS Mutations (602)
CK Jung, JH Lubin, AV Brenner, MP Little, AJ Sigurdson, YE Nikiforov
University of Pittsburgh, Pittsburgh; The Catholic University of Korea, Seoul, Republic of Korea; National Institute of Health, Bethesda

2:30 Ribonucleotide Reductase Large Subunit (RRM1) Gene Epression Predicts Efficacy of Adjuvant Mitotane in Adrenocortical Cancer (625)
M Volante, M Terzolo, M Fassnacht, I Rapa, A Germano, S Shiera, F Daffara, P Sperone, GV Scaglotti, B Allolio, M Papotti, A Berruti
University of Turin, Orbassano, Turin, Italy; University Hospital Wurzburg, Wurzburg, Germany

2:45 Papillary Thyroid Carcinoma with Hobnail Features: Histopathological Criteria To Predict Aggressive Behavior (580)
S Asioli, LA Erickson, A Righi, RV Lloyd
Department of Biomedical Sciences and Human Oncology, University of Turin, Turin, Italy; Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, MN; University of Wisconsin School of Medicine and Public Health, Madison, WI

3:00 RECESS, EXHIBITS, POSTER SESSION II

POSTER SESSION II
Monday, March 19, 2012
1:00 - 4:30 PM
CC Exhibit Hall B3 & C

Poster numbers to the left of the abstract title correspond to the board number where the poster will be displayed. The number in parentheses after the title is the abstract number in the Abstract Book. These posters will be on display this afternoon only.

BONE & SOFT TISSUE

Board Number

1 Complex Interphase Fluorescent In Situ Hybridization Patterns of EWSR1 Gene in Ewing Sarcoma Using Break Apart Probes (28)
H Chen, D McClain, SC Jhanwar, NP Agaram, MR Hameed
Memorial Sloan Kettering Cancer Center, New York, NY

2 Immunohistochemical Profile of 494 Genetically-Confirmed Ewing’s Sarcoma Cases (57)
A Llombart-Bosch, I Machado, M Alberghini, S Navarro
University of Valencia, Valencia, Spain; Orthopedic Institute Rizzoli, Bologna, Italy

3 Expression of ERG, an Ets Family Transcription Factor, Specifically Identifies ERG-Rearranged Ewing Sarcoma (81)
W-L Wang, NR Patel, M Caragea, D Lopez-Terrada, PCW Hogendoorn, JL Hornick, AJ Lazar
The University of Texas M.D. Anderson Cancer Center, Houston, TX; Texas Children’s Hospital/Baylor College of Medicine, Houston, TX; University of Western Ontario, Ontario, Canada; Leiden University Medical Center, Leiden, Netherlands; Brigham and Women’s Hospital, Boston, MA

4 Utility of a Monoclonal ERG/FLI1 Antibody for Immunohistochemical Discrimination of Ewing’s Family Tumors (76)
SA Tomlins, N Palanisamy, JC Brenner, JN Stall, DG Thomas, J Siddiqui, DR Lucas, AM Chinnaiyan, LP Kanju
University of Michigan Medical School, Ann Arbor, MI

5 Aberrant Calreticulin Expression Is Involved in the Dedifferentiation of Dedifferentiated Liposarcoma (44)
M Hisaoka, A Matsuyama
University of Occupational and Environmental Health, Kitakyushu, Japan

6 MDM2 Copy Numbers in Well Differentiated and Dedifferentiated Liposarcoma: Where Do We Draw the Line? (82)
P Ware, A Snow, M Pettenati, S Qasem
Wake Forest University Baptist Medical Center, Winston Salem
Well-Differentiated and Dedifferentiated Liposarcomas with Prominent Myxoid Stroma: Analysis of 55 Cases (72)
S Stoletic, CDM Fletcher, JL Hornick
Dana-Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital & Harvard Medical School, Boston, MA

KRAS Mutation in Lipomas, Atypical Lipomatous Tumors/Well-Differentiated Liposarcomas (ALT) and Dedifferentiated Liposarcomas (DDLs) (63)
CY Ok, M Welch, K Tomaszewicz, L Hutchinson, EF Cosar
University of Massachusetts Memorial Medical Center, Worcester, MA

Dedifferentiated Liposarcoma of the Extremities: Relative Incidence Compared with Atypical Lipomatous Tumors of the Extremities, and Clinicopathologic Features Including Two Cases with Morphology of So-Called “Inflammatory MFH” (67)
S Reynolds, D Meredith, F Leech, R Quinn, B Schmit, T Backlage
University of New Mexico SOM, Albuquerque, NM; UNM SOM, Albuquerque, NM

NY-ESO-1, a Cancer/Testis Antigen, Is Differentially Expressed in Myxoid/Round Cell Liposarcomas Compared to Other Liposarcoma Subtypes and Myxomatous Neoplasms (43)
J Hemminger, T Scharschmidt, J Mayerson, W Kraybill, OH Iwenofu
The Ohio State University Medical Center, Columbus, OH

Spindle Cell Liposarcoma, a Distinct Entity or Histologic Variant? Histologic and Molecular Analysis of 12 Cases (35)
AT Deyrup, F Chibon, L Guillou, P Lagarde, SW Weiss, J-M Coindre
USC-SOM, Greenville; Emory University, Atlanta; Institut Bergonie, Bordeaux, France; Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland

Melanotic Schwannoma (MS): A Clinicopathologic Study of 32 Cases (77)
J Torres-Mora, M Amin, AL Folpe
Mayo Clinic, Rochester, MN; William Beaumont Hospital, Detroit, MI

Rearrangement of DDIT3 (CHOP) in Perivascular Epithelioid Tumors (PEComas): A Novel Finding (70)
KE Schoedel, C Sherer, K Cieply, AL Folpe
University of Pittsburgh Medical Center, Pittsburgh, PA; Mayo Clinic, Rochester, MN

TFE3 Gene Rearrangement Status Is Heterogeneous in Alveolar Soft Part Sarcomas: A Study by Dual-Color Chromogenic In Situ Hybridization on Formalin-Fixed Paraffin-Embedded Samples (60)
T Motoi, A Yoshida, I Kato, T Hishima, K Tsuji, T Imamura, T Fukusato
Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital, Tokyo, Japan; The University of Tokyo, Tokyo, Japan; Teikyo University Hospital, Tokyo, Japan; Teikyo University, Tokyo, Japan

Muc-4 Expression and FUS Rearrangement in Sclerosing Epithelioid Fibrosarcomas: A Pathological Study of 20 Cases Further Supporting Relationship with Low Grade Fibromyxoid Sarcoma (66)
F Puls, K Thway, A Niblett, F Laenger, V Sumathi, C Fisher, CC Mungham, L-G Kindblom
Royal Orthopaedic Hospital, Birmingham, United Kingdom; Royal Marsden Hospital, London, United Kingdom; Medical School Hannover, Hannover, Germany; Robert Jones & Agnes Hunt Orthopaedic Hospital, Oswestry, United Kingdom

Assessment of MUC4 Expression in Primary Bone Sarcomas (75)
R Tirabosco, F Berisha, D Halai, H Ye, A Swamy, MF Amary, A Flanagan
Royal National Orthopaedic Hospital, Stanmore - London, United Kingdom

Recurrent Amplification at 7q21.2 Targets CDK6 Gene in Primary Myxofibrosarcomas and Identifies CDK6 Overexpression as an Independent Adverse Prognosticator (78)
J-W Tsai, Y-C Kao, C-F Li, H-Y Huang
E-Da Hospital, Kaohsiung, Taiwan; Wan Fang Hospital, Taipei, Taiwan; Chi Mei Medical Center, Tainan, Taiwan; Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan

Characterization of Gene Amplification-Driven AMACR Overexpression in Myxofibrosarcoma: Potential Implications in Tumor Progression and Therapeutics (56)
C-F Li, H-Y Huang
Chi-Mei Medical Center, Tainan, Taiwan; Kaohsiung Chang Gung Memorial Hospital and Chang Gung University College of Medicine, Kaohsiung, Taiwan

Sampling Modality: Influence on Predicting Outcome in Adult Soft Tissue Sarcomas of the Extremities (51)
H Khoja, BC Dickson, JS Wunder, PC Ferguson, A Griffin, J Babwah, D Howarth, RA Kandel
Mount Sinai Hospital, Toronto, ON, Canada

Therapeutic Accuracy and Diagnostic Utility for Open Biopsy, Core Needle Biopsy and Fine-Needle Aspiration in a Series of 282 Biopsy Procedures: Comparison with Resection Diagnoses (69)
NA Sangle, LJ Layfield
University of Utah School of Medicine, Salt Lake City, UT

Angiomatoid Fibrous Histiocytoma: An Expansion of the Histologic Spectrum (20)
SL Bohman, BP Rubin, JR Goldblum, MR Tanas, SD Billings
Cleveland Clinic Foundation, Cleveland

MYH9-USP6 Fusion Transcript in Nodular Fasciitis: An Institutional Review (74)
DB Swanson, EB Cohen, L Ramyar, RA Kandel, BC Dickson
Mount Sinai Hospital, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada

Clinicopathologic Features of IgG4-Associated Retroperitoneal Fibrosis (55)
M Lew, M Carruthers, A Khosroshahi, R Hasserjian, JH Stone, GP Nielsen, V Deshpande
Massachusetts General Hospital, Boston, MA
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<td>Autonomous Hospital of Barcelona, Barcelona, Spain; Hospital de la Santa Creu i Sant Pau, Barcelona, Spain; Hospital Clinico San Carlos, Madrid, Spain</td>
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<td>Oregon Health and Science University, Portland, OR</td>
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<td>Institut Bergonie, Bordeaux, France; Centre Georges-François Leclerc, Dijon, France; CHU-Hôpital Européen Georges Pompidou, Paris, France; CHU-Hôpital Haut-Levêque, Bordeaux, France; CHU-Groupement Hospitalier Est, Lyon, France; CHU Rangueil, Toulouse, France; Institut Gustave Roussy, Paris, France; CHU de Dijon, Dijon, France; Centre Chirurgical Marie Lannelongue, Le Plessis Robinson, France</td>
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**BREAST**

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Metastatic Non-Small Cell Lung Carcinoma (NSCLC) Masquerading as Primary Breast Cancer (PBC) – A Rare yet Major Pitfall in Pathologic Diagnosis (87) | R Ali, T Mohammad, M Hayes, D Ionescu | BC Cancer Agency, Vancouver, BC, Canada |                      |

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Henry Ford Hospital, Detroit, MI

44 Adenoid Cystic Carcinoma of the Breast – A Morphologic Study of 41 Cases (269)
EA Slodkowska, S Sahoo, M Akrum, J Catalano, D Giri
Memorial Sloan Kettering Cancer Center, New York, NY; UT Southwestern Medical Center, Dallas

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University of Washington, Seattle

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F Konno, J Cangiarella, L Chiriboga, S Krauter, F Darvishian
NYU Langone Medical Center, New York, NY

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Montefiore Medical Center and Albert Einstein College of Medicine, Bronx, NY; St. Vincent’s Medical Center, Bridgeport, CT

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AV Florea, DJ Dabbs, S Beriwai, R Bhargava
Jewish General Hospital/McGill University, Montreal, Canada; Magee-Womens Hospital/University of Pittsburgh Medical Center, Pittsburgh

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University of Yamanashi, Yamanashi, Japan; St. Luke’s International Hospital, Tokyo, Japan

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J Lamovec, P Cusati, S Pizzolitto, G De Maglio, G Falconieri
Institute of Oncology, Ljubljana, Slovenia; General University Hospital, Udine, Italy; General Hospital, Santiago do Cacem, Portugal

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C Mies, A Goyal, A Bagg, DM Frank, FG Barr, AL Dara, DB Roy, S Jaffer
Hospital of the University of Pennsylvania, Philadelphia, PA; Mount Sinai Medical Center, New York, NY

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Consultoria em Patologia, Botucatu, SP, Brazil; Institute of Oncology, Ljubljana, Slovenia; University of Vermont, Burlington, VT; General Hospital, Udine, Italy

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BP. Schneider; M Radovich, B Hancock, N Kassem, G Sledge, K Vang Nielsen, S Muller, M Thorat, R Mehta, S Badve
Indiana University School of Medicine, Indianapolis, IN; Dako A/S, Glostrup, Denmark

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Geisinger Medical Center, Danville, PA

55 Concordance between Tissue Microarray and Whole Section Estrogen Receptor Expression and Intratumoral Heterogeneity (135)
L Dvorak, R Gamez, L Varghese, C Forster, HE Gulbahce
University of Minnesota Fairview, Minneapolis, MN; Mayo Clinic, Rochester, MN; Fairview Southdale Hospital, Edina, MN; BioNet, University of Minnesota Fairview, Minneapolis, MN; VA Medical Center, Minneapolis, MN

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J Iqbal, AA Thike, PH Tan, MM Thu
Singapore General Hospital, Singapore

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F Dadmanesh, SK Mohanty, O Gordon, S Bose
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On-Q-ity, Inc, Waltham, MA; Danish Cancer Society, Copenhagen, Denmark; Helsinki University Central Hospital, Helsinki, Finland

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EC Minca, BP Portier, Z Wang, C Lanigan, E Downs-Kelly, RR Tubbs
Cleveland Clinic Foundation, Cleveland, OH

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UT Southwestern Medical Center, Dallas, TX

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AK Witkiewicz, RL Lipinski, C Solomides, S Peiper
Thomas Jefferson University, Philadelphia, PA

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R Xian, J Tchou, A Ziober, R Vonderheide, B Selvan, C June, PJ Zhang
Hospital of the University of Pennsylvania, Philadelphia, PA

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Stony Brook University Medical Center, Stony Brook, NY

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JR Choo, D Gao, G Chao, C Chow, S Aparicio, CM Perou, TO Nielsen

Genetic Pathology Evaluation Centre, Vancouver, Canada; University of British Columbia, Vancouver, Canada; University of North Carolina, NC

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LE Vasquez, D Canon, Y Abello, N Osina, A Plata, MM Torres, RE Andrade

Hospital Universitario Fundación Santa Fe de Bogotá, Bogotá, Colombia; Universidad de los Andes, Bogotá, Colombia

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J Huang

Medical College of Wisconsin, Milwaukee, WI

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IZ Yildiz-Aktas, DJ Dabbs, M Chivukula, R Bhargava

University of Pittsburgh Medical Center, PA

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C Carter, JM Avent, RE Rosenthal, MEH Hammond, DV Miller

Intermountain Medical Center/LDS Hospital, Salt Lake City, UT

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I Frahm, S Saracone, G Acosta Haab, V Caceres

Sanatorio Mater Dei, Buenos Aires, Argentina; Laboratorio Quantum, Rosario, Argentina; Instituto Maria Curie, Buenos Aires, Argentina; Productos Roche, Buenos Aires, Argentina

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X Li, MT Deavers, M Guo, LP Middleton, P Liu, L Huo

The University of Texas, MDACC, Houston

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C Eberle, M Magbanua, E Sosa, J Grenert, JT Rabban, C Zaloudek, Y-Y Chen

University of California, San Francisco, San Francisco, CA

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The Institute of Cancer Research, London, United Kingdom; Institut Claudius Regaud, Toulouse, France; Institut Curie, Paris, France; Institut Bergonié, Bordeaux, France; Centre Hospitalier Universitaire, Tours, France; Centre Hospitalier Régional, Orléans, France; Cancer Research UK London Research Institute, London, United Kingdom

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DN Rodrigues, P Wilkerson, R Duprez, A Mackay, MB Lambros, A Gauthier, O Mariani, M Mansour, R Natrajian, B Weigelt, A Vincent-Salomon, JS Reis-Filho

The Institute of Cancer Research, London, United Kingdom; Institut Curie, Paris, France; Cancer Research UK London Research Institute, London, United Kingdom

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JS Reis-Filho, A Mackay, PM Wilkerson, MB Lambros, A Gauthier, O Mariani, R Duprez, DN Rodrigues, M Mandour, C Maher, B Weigelt, R Natrajian, A Vincent-Salomon

The Institute of Cancer Research, London, United Kingdom; Institut Curie, Paris, France; Washington University in St Louis, St Louis; Cancer Research UK London Research Institute, London, United Kingdom

Adenoid Cystic Carcinoma of the Breast: Clinicopathologic and Molecular Analysis of 56 Cases (390)

X Zhu, J Chen, X Ying, CT Albarracin, Y Zhao, PH Rao, X Li, D Bell, A El-Naggar, SC Abraham, Y Wu

UT MD Anderson Cancer Center, Houston; Cancer Hospital, Fudan University, Shanghai, China; Texas Children’s Hospital, Houston

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TM D’Alfonso, J Padilla, SJ Shin

Weill Cornell Medical College, New York, NY

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FC Geyer, M Lacroix-Triki, P-E Colombo, N Patani, A Gauthier, R Natrajian, MB Lambros, I Khalifeh, C Albarracin, S Orru, C Marchio, A Sapino, A Mackay, B Weigelt, FC Schmitt, J Wesseling, N Sniege, JS Reis-Filho

Hospital Israelita Albert Einstein, Sao Paulo, Brazil; Institut Claudius Regaud, Toulouse, France; CRLC Val d’Aurelle, Montpellier, France; The Institute of Cancer Research, London, United Kingdom; Institut Curie, Paris, France; The American University of Beirut Medical Center, Beirut, Lebanon; The University of Texas MD Anderson Cancer Centre, Houston; Ospedale A. Businco, Cagliari, Italy; University of Turin, Turin, Italy; Cancer Research UK London Research Institute, London, United Kingdom; Institute of Molecular Pathology and Immunology (IPATIMUP), Oporto, Portugal; Netherlands Cancer Institute, Amsterdam, Netherlands

Intra-Operative Margin Evaluation of Breast Specimens: Value of Gross Evaluation (206)

AR Mallon, DJ Dabbs, RR Johnson, GM Ahrendt, KP McGuire, M Bonaventura, R Bhargava

Magee-Womens Hospital of UPMC, Pittsburgh, PA

GASTROINTESTINAL

Conversion of Goblet to Non-Goblet Columnar Metaplasia of the Esophagus. A Clinical/Pathologic and Molecular Study of 8 Cases (731)

TA Rege, CA Sanchez, X Li, DS Cowan, BJ Reid, PL Blount, RD Odze

Brigham and Women’s Hospital, Boston; Fred Hutchinson Cancer Research Center and University of Washington, Seattle
Monday PM

81 Poor Agreement for Detection of Goblet Cells in Esophageal 
and GEJ Biopsies (764)
H Wang, J Brown, P Kumarasinghe, C Langner; G Lauwers, N 
Shepherd, M Vieth, A Srivastava, R Odze
Beth Israel Deaconess Hospital, Boston; Royal Brisbane 
Hospital, Brisbane, Australia; PathWest QEI/UWA, Perth, 
Australia; Medical University of Graz, Graz, Austria; 
Massachusetts General Hospital, Boston; Cheltenham General 
Hospital, Cheltenham, United Kingdom; Institute of Pathology, 
Bayreuth, Germany; Brigham and Women’s Hospital, Boston

82 Goblet Cells Are Depleted with Advancing Degrees of 
Preneoplasia in Barrett’s Esophagus (631)
AT Agoston, A Sanpavat, RD Odze, A Srivastava
Brigham & Women’s Hospital, Boston, MA

83 Novel Chromosomal Abnormalities in Barrett’s Esophagus and 
Esophageal Adenocarcinoma Identified by Array Comparative 
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A Agarwal, T Appleberry, S Guha, J Ajani, W Hofstetter, S 
Swiner, P Lennon, A Rashid, D Maru
The University of Texas M.D.Anderson Cancer Center, 
Houston; PerkinElmer, Inc, Waltham; Pathgroup, Nashville

84 Bone Marrow Micrometastases in Esophageal Cancer – 
10-Year Follow-Up Confirms Prognostic Significance (736)
P Ryan, H Furlong, C Murphy, F O’Sullivan, T Walsh, GC 
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Bon Secours Hospital, Cork, Ireland; James Connelly 
Memorial Hospital, Dublin, Ireland; University College Cork, 
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85 Use of Immunohistochemical Expression of IMP3 in the Risk 
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A Bakula, R Cartun, DZ Sterns, P Newcomb, J Burghardt, S 
Ligato
Hartford Hospital, Hartford, CT

86 Telomere Shortening in Esophageal Epithelium of Alcoholics: 
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J Aida, A Yokoyama, N Shimomura, K-i Nakamura, N 
Ishikawa, SSS Poon, M Fujisawa, M Savabe, T Arai, K Takahiro 
Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan; 
National Hospital Organization Kurihama Alcoholism Center, 
Yokosuka, Japan; British Columbia Cancer Research Centre, 
Vancouver, Canada; Japanese Red Cross Medical Center, 
Tokyo, Japan; Tokyo Metropolitan Geriatric Hospital, Tokyo, 
Japan

87 Inlet Patch in Children: Clinical and Pathological 
Characteristics of 18 Cases (647)
A Bousamra, AG Saad
University of Arkansas for Medical Sciences, Little Rock, AR

88 A Clinicopathlogic Review of Esophageal Candidiasis (651)
S Chen, R Sams, N Shillingford, E Yakirevich, A Ross, L Noble, 
R Tavares, M Resnick, S Mangraw
Rhode Island Hospital and Alpert Medical School of Brown 
University, Providence, RI

89 Biopsies from the GEJ Area Composed of Pure Oxyint 
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(747)
G Soucy, TL Vaughan, LE Onstad, RD Odze
Brigham and Women’s Hospital, Boston; Fred Hutchinson 
Cancer Research Center, Seattle

90 Squamous Papillomas of the Esophagus: A Clinicopathologic 
Study of 171 Patients Revealing a Possible Association with 
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JE Lapinski, KD Bohman, WE Katzin, RE Petras
Ameripath Institute of Gastrointestinal Pathology, Oakwood 
Village, OH

91 Web-Based Teaching, a Contemporary Diagnostic Method of 
Educating Canadian Pathologists on Gastrointestinal Stromal 
Tumors (GIST) (710)
EC Marginean, S Verma
Ottawa Hospital, Ottawa, Canada

92 HER2 Copy Number in the Assessment of HER2 Status in 
Gastric/GOJ Cancers: Does It Matter? (689)
P Kumarasinghe, B de Boer, K Sheng, E Ooi, S Jayasinghe, S 
Fox
PathWest, QEI Medical Centre, Perth, WA, Australia; 
Massachusetts General Hospital, Boston, MA; Peter 
MacCallum Cancer Centre, St Andrews Place, Melbourne, 
VIC, Australia; University of Western Australia, Perth, WA, Australia

93 Micropapillary Carcinoma Predicts Recurrence in Patients 
with Stage II Gastric Cancer and Treated with Surgery Only (656)
I Do, J Lee, S Kim, K-M Kim
Samsung Medical Center, Seoul, Korea

94 Sonic (Shh), Desert (Dhh) and Patched (PTCH1) Hedgehog 
Pathway Protein Expression Correlates with Aggressive 
Disease in Gastric/GE Junction Carcinomas (GCA) (701)
K Linos, C Cheeohan, J Ross
Department of Pathology, New York, NY; Albany Medical 
College, Albany, NY

95 HER2/Neu Testing in 207 Gastric and Gastroesophageal 
Junction Adenocarcinomas: Immunohistochemistry and Silver 
In Situ Hybridization (SISH) Provide Effective Brightfield 
Methods for Clinical HER2 Testing (674)
E Hsieh, P Henry, K Kwak, W Hanna
Sunnybrook Health Sciences Centre, Toronto, Canada

96 The Heterogeneity of HER2 Expression in Esophageal and 
Gastric Adenocarcinomas (687)
BR Koltz, DG Hicks, CL Whitney-Miller
University of Rochester Medical Center, Rochester, NY

97 Massive Foveolar-Gland Polyposis of the Stomach: 
Climicopathologic, Histologic, and Molecular Analysis of 
Three Cases with Gastrectomy (666)
RS Gonzalez, JM Sarmiento, N Osborn, S Keilin, JR Spivey, M 
Rossi, C Hill, P Bagci, V Adsay
Emory, Atlanta

98 Autoimmune Gastritis Versus Severe Body Predominant 
H pylori Gastritis: A Comparative Analysis of 88 Cases (671)
HS Han, GY Lauwers
Konkuk University School of Medicine, Seoul, Republic of 
Korea; Massachusetts General Hospital, Harvard Medical 
School, Boston, MA

99 The Sydney System Twenty Years Later: Who Uses It and 
Does It Matter? (692)
JG Lash, RM Genta
Caris Life Sciences, Irving, TX
100 Gastric Chief Cell Adenomas: Proposal for a New Entity (745)
S Shroff, M Taggart, A Rashid, T Mounajjed, T-T Wu, S Abraham
MD Anderson Cancer Center, Houston; Mayo Clinic, Rochester

101 Gastric Intestinal Metaplasia with Dysplasia-Like Atypia: A Morphological and Biologic Evaluation (698)
Y Li, X Chang, W Zhou, Y Xiao, J Chen, GY Lauwers
Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing, China; Massachusetts General Hospital, Boston, MA

102 Chronic Granulomatous Disease Involving Gastrointestinal Tract (Pathology Study of 87 Cases) (690)
J-P Lai, PP Aung, S Khangura, N Kamal, JJ Gallin, SM Holland, HL Malech, T Heller, M Quezado
NCI, NIH, Bethesda, MD; NIH, Bethesda, MD

103 Phylogeographic Origin of Helicobacter pylori Is Associated with Eosinophilic Inflammation of the Gastric Mucosa (726)
MB Piazuelo, T de Sablet, KT Wilson, LE Bravo, BG Schneider, J Romero-Gallo, R Chaturvedi, AG Delgato, RM Peek, P Correa
Vanderbilt University School of Medicine, Nashville; Veterans Affairs Tennessee Valley Healthcare System, Nashville; Universidad del Valle, Cali, Colombia

104 A Muscular Abnormality: An Overlooked Cause of Intestinal Pseudo-Obstruction (645)
A Best, C Chisholm, L Donner, D Rampisela
Scott & White Memorial Hospital and Texas A&M Health Science Center College of Medicine, Temple, TX

105 An Interobserver Study on IgG4 Related Disease (734)
TL Rice-Stitt, Y Zen, V Deshpande
Massachusetts General Hospital, Boston; King’s College Hospital, London, United Kingdom

106 In Situ Contribution of Plasmacytoid Dendritic Cells in Gut Acute Graft Versus Host Disease: Relation with the Th17 Immune Response (646)
C Bossard, F Malard, J Arbez, P Chevalier, T Guillaume, J Delaunay, J-F Mosnier, P Saas, M Mohly, B Gaugler
EA 4273 Biometadys, Université de Nantes, Faculté de Médecine, Nantes, France; INSERM UMR892, Nantes, France; INSERM UMR 645, Besançon, France; Service d’Hématologie Clinique, CHU Hotel Dieu, Nantes, France

107 Immunohistochemical Stains for CD3 and CD8 Do Not Improve Detection of Gluten Sensitivity in Duodenal Mucosal Biopsies (677)
RM Hudacko, XK Zhou, RK Yantiss
Weill Medical College of Cornell University, New York, NY

108 Immunohistochemical Positivity for Reg1 and IL6: Potential Markers for Distinguishing between Colitis-Associated Dysplasia and Sporadic Adenoma in IBD (669)
X Gui, SK Jensen, S Liu, Z-h Gao
University of Calgary and Calgary Laboratory Services, Calgary, AB, Canada

109 Clinicopathologic and Molecular Characterization of PIK3CA Mutations in Colorectal Neoplasms (758)
E Vakiani, M Janakiraman, R Shen, Z Zeng, J Shia, DS Klimstra, P Paty, L Salz, M Weiser, DB Solit
Memorial Sloan-Kettering Cancer Center, New York, NY

Loss of PTEN Immunohistochemical Expression in Patients with Advanced Colorectal Adenocarcinoma: Implications for Targeted Therapy (640)
R Bakkar, R Broadaus
University of New Mexico School of Medicine, Albuquerque, NM; M.D. Anderson Cancer Center, Houston, TX

Polyp Landscape in Serrated Polypsis Syndrome (734)
C Rosty, D Buchanan, N Walker, S Parry, J Young
Royal Brisbane and Women’s Hospital, Brisbane, Australia; Queensland Institute of Medical Research, Brisbane, Australia; Envoi Specialist Pathologists, Brisbane, Australia; Auckland City Hospital, Auckland, New Zealand

Low-Grade Appendiceal Mucinous Neoplasms Show Activation of the Mitogen Activated Protein (MAP) Kinase Pathway (773)
RK Yantiss, DB Solit, M Janakiraman, J Misraji
Weill Cornell Medical College, New York, NY; Memorial Sloan Kettering Cancer Center, New York, NY; Massachusetts General Hospital, Boston, MA

Evaluation and Prognostic Significance of Human Tissue Kallikrein-Related Peptidase 10 (KLK10) in Colorectal Cancer (659)
W Dubinski, C Petrazi, Y Youssef, GM Youssef
St. Michael’s Hospital, Toronto, ON, Canada; Metropolitan Hospital, Athens, Greece

Large-Scale Genome-Wide mRNA Expression Profiling of 1003 Colorectal Cancers (719)
S Ogino, J Waldron, Y Hoshida, G Parmigiani, T Golub, C Hutenhouver, C Fuchs
Brigham and Women’s Hosp., Boston; Harvard School of Public Health, Boston; Broad Institute, Cambridge

Mitochondrial Mutagenesis and Inflammation in the Colorectal Adenoma-Carcinoma Sequence (708)
A Maguire, K Sheahan, E Fox, P Martin, D Hughes, R Geraghty, N Swan, H Mulcahy, J Hyland, D O’Donoghue, J O’Sullivan
St. Vincent’s University Hospital, Dublin, Ireland; University College Dublin, Dublin, Ireland; University of Washington, Seattle; Trinity Centre for Health Sciences, Dublin, Ireland

Scoring of Mesorectum: Confrontation between Surgeon’s and Pathologist’s Assessments (727)
FH Poizat, C de Chaisemartin, B Lelong, B Esterni, J Ewald, JR Delpero, L Xerri, GM Monges
Institut Paoli Calmettes, Marseille, France

Serrated Polyps of the Extracolonic Gastrointestinal Tract: Histologic Findings and Genetic Alterations (753)
MW Taggart, A Rashid, J Estrella, SC Abraham
MD Anderson Cancer Center, Houston

Reproductibility of Villous Component and High Grade Dysplasia in Colorectal Adenomas < 1 cm: Implications for Endoscopic Surveillance (709)
D Mahajan, E Downs-Kelly, X Liu, R Pai, DT Patil, L Rybicki, A Bennett, T Plesec, O Cummings, DK Rex, JR Goldblum
Cleveland Clinic, Cleveland, OH; Indiana University Hospital, Indianapolis, IN

In Situ Validation of an Intestinal Stem Cell Signature in Colorectal Cancer (777)
JL Ziskin, D Dunlap, M Taylaoglu, WF Forrest, H Koeppe, AM Jabb
Stanford University Medical Center, Stanford, CA; Genentech Inc., South San Francisco, CA
Molecular Characteristics of HPV Positive anal Carcinoma (771)
J Willis, Y Hao, A Scott, Y Zhao, D Dawson, S Markowitz, Z Wang
Case Medical Center, Cleveland, OH; Case Comprehensive Cancer Center, Cleveland, OH; Case Western Reserve University, Cleveland, OH

Low Grade Neuroendocrine Tumors Arising in Intestinal Adenomas: Evidence for Alterations in the Beta-Catenin/APC Pathway (662)
J Estrella, MW Taggart, A Rashid, SC Abraham
U. T. M. D. Anderson Cancer Center, Houston, TX

Colonic Dysplasia and Malignancy in Patients with SMAD4 Mutation-Associated Juvenile Polyposis-Hereditary Hemorrhagic Telangiectasia (680)
ZS Kamil, F Schwenker, T Berk, A Pollett, A Grin, ME Faughnan, CJ Streuter
University of Toronto, Toronto, ON, Canada; McGill University, Montreal, QC, Canada; Mount Sinai Hospital, Toronto, ON, Canada; St. Michael’s Hospital, Toronto, ON, Canada

Sporadic Colonic Adenocarcinomas with a High Degree of Microsatellite Instability (MSI-H) Do Not Show Evidence of Wnt Signaling Abnormalities (722)
NC Panarelli, C Vaughn, WS Samowitz, RK Yantiss
Weill Cornell Medical College, New York, NY; University of Utah, Salt Lake City, UT

Young Age and High Frequency of Multiplicity, Well Differentiation, Crohn’s-Like Reaction, Tumor Heterogeneity, and Signet Ring Differentiation in Inflammatory Bowel Disease-Associated Colorectal Adenocarcinoma (703)
X Liu, M Landau, JR Goldblum, Z Zhao, J Lin
Cleveland Clinic, Cleveland, OH; Indiana University School of Medicine, Indianapolis, IN

Molecular Characteristics of HPV Positive anal Carcinoma (760)
S Valmary-Degano, J-L Pretet, F Monnier, R Hamlaoui, E Jacquin, J-F Bosset, C Mougin, B Kantelip
University Hospital, Besançon, France; IFR133 - UFR SMP - Les Hauts du Chazal, Besançon, France

High Grade Neuroendocrine Carcinoma of the Anorectum: A Clinicopathologic Study of 7 Cases of a Rare Entity (769)
H Wiland, R Odze, S Schulte, JR Goldblum
Cleveland Clinic Foundation, Cleveland, OH; Brigham and Women’s Hospital, Boston, MA

Expression of Cancer Testis Antigens (CTAs) and Melanocyte Differentiation Antigens (MDAs) in Malignant Melanoma of the Ano-Rectal Mucosa (MMARM) (679)
AA Jungbluth, D Frochina, M Holz, M Weiser, KJ Basam
Ludwig Institute for Cancer Research, New York, NY; Dep. of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY; Dep. of Pathology, Memorial Sloan-Kettering Cancer Center, New York, NY

“Basal Cell Carcinoma Where the Sun Doesn’t Shine” – A Clinicopathologic Analysis of Basal Cell Carcinoma of the Anal Region and Its Distinction from Basaloid Squamous Cell Carcinoma (723)
DT Patil, JR Goldblum, SD Billings
Cleveland Clinic, Cleveland, OH

Histopathology of “Cord Colitis Syndrome” in Umbilical Cord Blood Transplant Recipients (644)
AM Bellizzi, G Soriano, AF Herrera, FM Marty, JL Hornick
University of Iowa Hospitals and Clinics, Iowa City; Brigham and Women’s Hospital, Boston

Histologic Features, Particularly Eosinophilic Inflammation, Can Discriminate Mycophenolate-Induced from GVHD-Induced Colitis (749)
K Star, RD Odze
Brigham and Women’s Hospital, Boston

Histological Findings in Acutely Symptomatic Ulcerative Colitis Patients with Superimposed Clostridium difficile Infection (765)
T Wang, L Mattukas, CJ Streuter
University of Toronto, Toronto, ON, Canada; St. Michael’s Hospital, Toronto, ON, Canada

GENITOURINARY

Evaluation of LIN28 as a Pan-Germ Cell Tumor Marker Using Germ Cell Tumor Tissue Microarrays (905)
A Karanamurthy, S Roy, S Ranganathan, A Parwani
University of Pittsburgh Medical Center, Pittsburgh, PA

Clear Cell Papillary Cystadenoma of the Epididymis and Mesosalpinx: Immunohistochemical Relationship to Clear Cell Papillary Renal Cell Carcinoma (RCC) (826)
R Cox, JI Epstein
The Johns Hopkins Hospital, Baltimore, MD

NANOG Immunohistochemical Expression in Tumors (1057)
M Wilkerson, F Lin, J Shi
Geisinger Medical Center, Danville, PA

CDX2 Is Superior to Alpha-Fetoprotein in Yolk Sac Tumors (YST) Both in Adult and Pediatric Patients: Study with Emphasis on Morphologic Patterns (962)
G Naderkhani, A Pinto, K Trpkov, T Bismar, A Yilmaz
Calgary Laboratory Services and University of Calgary, Calgary, AB, Canada

Comparative Utility of Novel Nuclear Markers Steroidogenic Factor (SF-1) and Forkhead Box L2 (FOXL2) in the Diagnosis of Sex Cord Stromal Tumors (SCST) of the Testis (791)
M Aron, AM Gown, BL Balzer, M Amin, S Shen, DE Hansel, P Tamboli, G Paner, DJ Luthringer, SK Mohanty, LP Herrera, MB Amin
Cedars-Sinai Medical Center, Los Angeles; Phenopath Laboratories, Seattle; William Beaumont Hospital, Detroit; The Methodist Hospital, Houston; Cleveland Clinic, Cleveland; M.D. Anderson Cancer Center, Houston; University of Chicago, Chicago

A FISH Assay for Detection of Excess Chromosome 12p Material To Distinguish Germ Cell Tumors from Somatic Carcinoma (838)
RM Elliott, MK Rao, K Wang, H Al-Ahmadie, Y Chen, SW Fine, A Gopalan, SK Tickoo, SC Jhanwar, VE Reuter
Memorial Sloan-Kettering Cancer Center, New York

Consecutive Progression from Intratubular Germ Cell Neoplasm, Unclassified (IGCNU) to Seminoma and Ultimately to Embryonal Carcinoma of the Adult Testis: An Allelotyping Analysis of Cases with Embryonal Carcinoma Accompanied by Co-Existing Seminoma and/or IGCNU Components (952)
K Miyai, S Yamamoto, K Iwaya, O Matsubara, EJ Mark
National Defense Medical College, Tokorozawa, Saitama, Japan; Massachusetts General Hospital and Harvard Medical School, Boston, MA
139 Phenotypic Characterization of Primary Testicular Diffuse Large B-Cell Lymphoma (1054)
PT Went, T Menter, M Ernst, S Dirnhofer, A Barghorn, A Tzankov
Institute of Pathology, Basel, Switzerland; Institute of Pathology, Liestal, Switzerland; Medica, Zürich, Switzerland

140 Florid Reactive Mesothelial Hyperplasia of the Tunica Vaginalis Mimicking Malignant Mesothelioma: A Study of 10 Cases (933)
S Lee, JI Epstein, PB Illet
The Johns Hopkins Hospital, Baltimore

141 Glandular Inclusions in Hernia Sac of Children and Adults: Potential Source of Diagnostic Error: Report of 21 Cases, 3 Involving Females (956)
D Mockler, P Kane, S Huang, A Heimann, C Tornos
Stony Brook University Medical Center, Stony Brook, NY

142 Massive Localised Lymphedema of the Male External Genitalia: A Clinicopathologic Study of 7 Cases (929)
S Lee, JI Epstein
The Johns Hopkins Hospital, Baltimore

143 Immunohistochemical Expression of SALL4 in Hepatocellular Carcinoma, a Potential Pitfall in the Differential Diagnosis of Yolk Sac Tumors (906)
B Katz, ND Gonzalez-Roibon, A Chaux, R Sharma, GJ Netto, M Torbenson
The Johns Hopkins University SOM, Baltimore, MD

144 Distinctive Immunohistochemical Profile of the Penile Distal Urethra (882)
JS Han, GJ Netto, AL Cubilla, S Lee, N Gonzalez-Roibon, R Sharma, A Chaux
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

145 Loss of PTEN Immunoeexpression Is Associated with Increased Risk of Recurrence after Prostatectomy for Clinically-Localized Prostate Cancer (820)
A Chaux, S Peskoe, N Gonzalez-Roibon, J Hicks, AM De Marzo, EA Platz, GJ Netto
Johns Hopkins University School of Medicine, Baltimore, MD; Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD

146 Intercorrelation of Cell Cycle Markers in Squamous Cell Carcinomas of the Penis (964)
GJ Netto, AL Cubilla, R Sharma, J Hicks, KL Lecksell, A Chaux
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

147 The Epidermal Growth Factor Receptor (EGFR) Is Frequently Overexpressed in Penile Squamous Carcinomas (965)
GJ Netto, AL Cubilla, B Katz, KL Lecksell, R Sharma, A Chaux
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

148 Immunohistochemical Expression of Phosphorylated S6 Is Associated with Degree of Differentiation in Penile Squamous Cell Carcinoma (821)
A Chaux, AL Cubilla, J Hicks, KL Lecksell, AL Burnett, GJ Netto
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Paraguay

149 5-Hydroxy-Methyl-Cytosine Content Is Strongly Associated with Degree of Histologic Differentiation in Penile Squamous Cell Carcinomas (819)
A Chaux, MC Haffner, WG Nelson, KL Lecksell, S Yegnasubramanian, AL Cubilla, GJ Netto
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

150 Novel Dual Color Immunohistochemical Analysis for Detecting ERG and SPINK1 Status in Prostate Carcinoma (799)
R Bhalla, LP Kunju, SA Tolumins, K Christopherson, C Cortez, JM Mosquera, G Pestano, A Chinnayyan, N Palansamy
University of Michigan, Ann Arbor, MI; Ventana Medical System, Tucson, AZ; Weill Cornell Medical College, New York, NY; Michigan Center for Translational Pathology, Ann Arbor, MI; Howard Hughes Medical Institute, Ann Arbor, MI

151 Antibody Based Detection of ERG Gene Fusions in Prostate Cancer: An Immunohistochemical Study Comparing C- and N-Terminus ERG Antibodies (1009)
RB Shah, R Lonigro, B Brummell, J Siddiqui, B Spaulding, A Chinnayyan, R Mehra
Caris Life Sciences, Irving; University of Michigan, Ann Arbor, MI; Dako Corporation, Carpentaria; Memorial Sloan Kettering Cancer Center, New York

152 TMPRSS2-ERG Gene Fusion in Prostate Cancer of Central Zone Origin (950)
MP Mikulasovich, ML Stanton, CC Guo, MT Deavers, IN Prokhorova, BA Czerniak, P Troncoso
The University of Texas MD Anderson Cancer Center, Houston, TX

153 Comparison of ERG Oncoprotein Expression among Matched Cohorts of African-American and Caucasian-American Prostate Cancer Patients (994)
P Rosen, D Pfister, D Young, G Petrovics, Y Chen, A Dobi, D McLeod, S Srivastava, I Sesterhenn
Walter Reed National Military Medical Center, Bethesda, MD; University Hospital, Rheinish-Westfalische Technische University, Aachen, Germany; Center for Prostate Disease Research, Uniformed Services University of the Health Sciences, Bethesda, MD; Joint Pathology Center, Silver Spring, MD

154 Incidence and Correlation of AKT and ERG Expressions in Japanese Prostate Cancer (1025)
H Takahashi, B Furusato, T Kimura, M Okayasu, S Mizukami, S Egawa, H Hano
The Jikei University School of Medicine, Tokyo, Japan

155 Immunohistochemical Evaluation of TMPRSS2-ERG Gene Fusion in Adenosis of the Prostate (873)
WM Green, JI Hicks, A DeMarzo, JI Epstein
The Johns Hopkins Hospital, Baltimore

156 Expression of ERG Protein in Human Tumors Using a Highly Specific Anti-ERG Monoclonal Antibody (1065)
O Yaskiv, B Rubin, H He, P Carver, C Magi-Galluzzi, M Zhou
North Shore LIJ Laboratories, Lake Success, NY; Cleveland Clinic, Cleveland, OH; Cancer Biology and Glickman Urological Institute, Cleveland, OH

157 Detection of ERG in Japanese Transition Zone Prostate Cancer (856)
The Jikei University School of Medicine, Tokyo, Japan
158 ERG Expression in 175 Prostatic Carcinomas and 270 Carcinomas from Different Primary Sites (1044) M Verdu, R Roman, M Calvo, N Rodon, B Garcia, P Merce, X Puig

159 ERG Protein Expression and ERG Gene Rearrangement in Prostate Cancers of Different Zonal Origin (876) CC Guo, MP Mikulasovich, MT Deavers, P Troncoso, BA Czerniak

160 Intergation of ERG Gene Rearrangements in Prostate Cancer Identifies Novel Signatures Relative to Disease Progression and with Prognostic Implications (784) M Alshalalfa, LH Teng, LF Petersen, A Bakkar, A Al-Mami, S Liu, C Brenner, M Dolph, FY Feng, R Alhajj, TA Bismar

161 Novel Dual Color Immunohistochemical Method for Detecting ERG and PTEN Status in Prostate Carcinoma (798) R Bhalla, LP Kunju, SA Tomlins, K Christopherson, C Cortez, JM Mosquera, G Pestano, A Chinnaiyan, N Palanisamy

162 ERG Immunoreexpression Does Not Predict Risk of Recurrence after Prostatectomy for Clinically-Localized Prostate Cancer (869) ND Gonzalez-Roibon, S Peskoe, A Chaux, R Albadine, J Hicks, A De Marzo, EA Plutz, GJ Netto

163 Correlation between ERG Immunohistochemical Expression and Radiation Response in Prostate Cancer (871) A Gopalan, Y Chen, H Al-Ahmadi, S Fine, J Eastham, S Tickoo, V Reuter

164 Evaluation of Novel ERG/SPINK1 IHC and 4-Color Quantum-Dot Based ERG/PTEN FISH in Radical Prostatectomy Specimens (975) K Park, N Palanisamy, T MacDonald, J Siddiqui, AM Chinnaiyan, MG Sanda, H Ye, MA Rubin, JM Mosquera

165 Determination of Intratumoral Heterogeneity for PTEN Loss in Prostate Cancer by IHC for PTEN and ERG (875) B Giumauskaya Ocal, B Gurel, JL Hicks, T Lotan, AM De Marzo

158 ERG Protein Expression in Localized, Metastatic and Castration Resistant Prostate Cancer: A Comparative Immunohistochemistry and Fluorescent In-Situ Hybridization Study (1027) LH Teng, C Wang, K Trpkov, A Yilmaz, LR Begin, S Liu, M Dolph, TA Bismar

Utility of the ERG Immunostain in conjunction with a PIN4 Cocktail in classifying atypical glandular lesions in extended prostate core biopsies (1062)

167 Concordance of TMPRSS2-ERG Fusion Status by Quantitative PCR with ERG Protein Expression by Immunohistochemistry Using Anti-ERG Monoclonal Antibody EPR3864 (843)

SM Falzarano, C Millward, T Maddala, DB Cherbavaz, M Lee, EA Klein, C Magi-Galluzzi

Cleveland Clinic, Cleveland, OH; Genomic Health, Inc, Redwood City, CA

168 Evaluation of ERG Expression in Tumors from Various Organs (937) H Liu, J Shi, M Wilkerson, X Yang, F Lin

Geisinger Medical Center, Danville, PA; Northwestern University, Chicago, IL

158 ERG Protein Expression and Genomic Rearrangement Status in Primary and Metastatic Prostate Cancer – A Comparative Study of Two Monoclonal Antibodies (807)

M Braun, D Goltz, Z Shaikibrahim, W Vogel, D Boehm, V Scheble, A Dobie, F Fend, N Wernert, G Kristiansen, S Perner

University Hospital of Bonn, Bonn, Germany; University Hospital of Tuebingen, Tuebingen, Germany; Uniformed Services University of the Health Sciences, Rockville

Prostate adenocarcinomas aberrantly expressing p63 are negative for ERG protein expression and ERG gene rearrangement (939)

TL Lotan, MC Hoffner, JL Hicks, AO Osunkoya, GJ Netto, AM De Marzo, JI Epstein

Johns Hopkins School of Medicine, Baltimore, MD; Emory University School of Medicine, Atlanta, GA

Expression of ERG protein, a prostate cancer specific marker, in high grade prostatic intraepithelial neoplasia (HGPIN) detected in prostate biopsy: Lack of utility to stratify HGPIN cancer risks (884)

H He, AO Osunkoya, P Carver, S Falzarano, C Magi-Galluzzi, M Zhou

Cleveland Clinic, Cleveland, OH; Emory University, Atlanta, GA; Beijing University, Beijing, China; New York University, New York, NY
Prevalence and Patterns of ERG Expression in Matched Cohorts of African-Americans and Caucasian-Americans with Prostate Cancer (995)

E Rosen, D Pfister, D Young, G Petrovics, A Dobi, Y Chen, D McLeod, S Srivastava, IA Sesterhenn

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Assessment of TMPRSS2: ERG (T:E) Gene Fusion in Prostatic Adenocarcinoma (CaP) by Fluorescence In Situ Hybridization (FISH) and Immunohistochemistry (IHC): Correlation of ERG Break-Apart and T:E Fusion Probes with ERG and TMPRSS2 Protein Expression (794)

M Bastacky, M Gogniat, C Sherer, K Cieply, A Gedansky, S Kavala, A Parwani, R Dh, M Acquafondata, F Francis, S Bastacky

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ERG Immunohistochemical Expression in Dominant Prostate Cancers and Paired Lymph Node Metastases (849)

SW Fine, HA Al-Ahmadie, Y Chen, M Dudas, SK Tickoo, VE Reuter, A Gopalan

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AM Young, N Palantisamy, J Siddiqi, JT Wei, D Wood, AM Chinnaian, LP Kanju, SA Tomlins

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Immunohistochemical Evaluation of ERG Expression in Metastatic Carcinoma of the Prostate (976)

ER Parrilla-Castellar, JC Cheville, M Kohli, TJ Sebo, RE Jimenez

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J Ko, SM Falzaran, E Walker, K Streator Smith, EA Klein, M Zhou, C Magi-Galluzzi

Cleveland Clinic, Cleveland

Comparison of Partial Sampling Methods in Radical Prostatectomy Specimens (1038)

SA Umar, V Ivraneshvili, L Pelaez, S Yasir, S Paluru, S Lokeshwar, M Manoharan, M Sowalow, M Jorda

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Extraction of Metabolites Can Be Successfully Performed without Affecting Histopathologic Evaluation in Prostate Needle Biopsies (942)

C Magi-Galluzzi, SM Farzaran, EA Klein, J McDunn, B Neri

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Clinical Follow-Up of 101 Patients with Isolated HGPIN Immunostained for ERG (998)

DH Russell, D Tacha, A Dobi, I E Sesterhenn, D McLeod, S Srivastava, JT Moncur

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F Pierconti, T Cenci, F Pinto, PF Bassi, LM Larocca

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The Morphology and Immunohistochemical Phenotypic Expression of Focal Prostatic Atrophy (801)

A Billis, L Meirelles, LLLL Freitas, BD Lins, JFL Bonfito, LBE Costa, PH Poletto

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Prognostic Significance of Periacinar Retraction Clefting in Prostatic Adenocarcinoma (941)

Y Macias, A Kajdaszy-Balla

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S Venigalla, C Zhao, H Miyamoto

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DeltaNp63 Isoforms of p63 in Aberrant Diffuse p63 Positive Prostate Cancer (1037)

K Uchida, HM Ross, JI Epstein, T Lotan, PB Illet

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J-J Yang, SM Falzaran, K Streator Smith, M Zhou, E Klein, C Magi-Galluzzi

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DM Marcus, PJ Rossi, AB Jani, M Goodman, AO Osunkoya

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V Tzelepi, M Karlou, S Wen, A Hoang, C Scopa, C Logothetis, E Estathiotou, P Troncoso

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R Zarrin, L Street, F Kosari, P Pournazari, M-T Shabani-Rad, J Patel, DA Stewart, A Mansoor

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Molecular Characteristics of Composite Mantle Cell Lymphoma and Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (1613)


The University of Texas MD Anderson Cancer Center, Houston, TX; University of Basel Hospital, Basel, Switzerland; University of Pittsburgh School of Medicine, Pittsburgh, PA; University of Würzburg, Würzburg, Germany

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K Stallings, S El Amin, S Pirruccello

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JF Coleman, GK Olson, J Gale, KE Hunt, MA Vasef

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Comprehensive Molecular Cytogenetic Analysis by Fluorescence In Situ Hybridization in Patients with Chronic Lymphocytic Leukemia (1391)

JA Diaz-Perez, D Amaro, ML Dell'Aquila, H-Y Wang

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MicroRNA 16-1 Predicts Time-to-Treatment (TTT) in Chronic Lymphocytic Leukemia (1451)

P Kaur, HB Steinmetz, CL Leffert, AV Danilov, GJ Tsongalis

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Chronic Lymphocytic Leukemia Associated with t(14;18) (q32;q21) (1371)

G Tong, RL Sargent, JL Medeiros, LV Abruzzo

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In Vivo CLL Proliferation Is Targeted by BTK Inhibition: ERK Activity Predicts Patient Nodal Response (1584)


Weill Cornell Medical College, New York, NY; Pharmacycien Inc., Sunnyvale, CA

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CA Amador-Ortiz, DM Menke, R Valdez, L Jiang, TM Michael, WG Morice, D Jevremovic, TD Shanafelt, CA Hanson

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Persistence of Residual Normal Peripheral Blood B Cells in Newly Diagnosed Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma (CLL/SLL) Identifies a Good Prognostic Subgroup (1428)

P Horna, SH Kroft, AM Harrington, H Olteanu

Medical College of Wisconsin, Milwaukee

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A Abdul-Nabi, L Peterson, B Nelson

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S Ayub, B Gehrs, H Jarari, M Anwar, L Eisenberg, A Al-Katib, M Palutke

Wayne State University/Detroit Medical Center, Detroit, MI

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V Pillai, O Pozdnyakova, K Charest, B Li, DM Dorfman

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A Louissaint, A Ackerman, JA Ferry, AJ Ilafrate, LR Zakerzadeh, NL Harris, RP Hasserjian

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Bcl-2<sup>bright</sup> Follicular Colonization Pattern Is Not Always Indicative of Incipient or Indolent Follicular Lymphoma (1468)

JC Lee, V Murty, S Jordan, B Aloheid, B Govind

Columbia University Medical Center, New York, NY

The Efficacy of Lymphoid- Specific Helicase (LSH) and Human Germinal Center Associated Lymphoma (HGAL) in Differentiating Small B Cell Lymphomas (1611)

M Zheng, M Toscano, E Manaloor

Georgia Health Sciences University, Augusta, GA

In-Situ Follicular Lymphoma: A Case Series with Clinical Characterization and Outcome (1565)

M Sur, A Rajagopalan, C Ross

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M Jamali, E Hynek, J Cohen, JW Vardiman

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DS West, A Dogan, RP Ketterling, ME Law, ED McPhail, DS Viswanatha, PJ Kurtin, LN Dao, RD Ritzer, GS Nowakowski, AL Feldman

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JK Frederiksen, R Burack

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227 Immunoarchitectural Patterns of Germinal Center Antigens Including LMO2 Assist in the Differential Diagnosis of Marginal Zone Lymphoma and Follicular Lymphoma (1393)
KS Dyhdalo, C Lanigan, RR Tubbs, JR Cook
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228 Preclinical Evaluation of Small Molecule p53 Activating Agent Prima-1met in Waldenstrom Macroglobulinemia (1535)
MN Saha, S Koh, H Chang
University Health Network, Toronto, Canada

229 Clinicopathologic and Molecular Features of Crystal (Immunoglobulin) Storing Histiocytosis Associated with Lymphoplasmacytic Neoplasms (1449)
R Kanagal-Shamanna, DM Weber, RZ Orlowski, P Lin, RN Miranda, CE Bueso-Ramos, LJ Medeiros, KH Young
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230 Pyrosequencing Analysis for BRAF Mutation in Low Grade B-Cell Lymphomas (1392)
E Duncavage, L Henke, F Kreisel
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231 Pyrosequencing of BRAF V600E in Routine Samples of Hairy Cell Leukemia (1522)
D Qin, L Zhang, L Moscinski, R Setoodeh, S Shen
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232 Pyrosequencing of BRAF V600E in Routine Samples of Hairy Cell Leukemia identifies CD5+ Variant Hairy Cell Leukemia That Lacks V600E (1470)
JK Lennerz, B Klaus, R Marienfeld, P Moeller
University Ulm, Ulm, Germany

233 BRAF V600E Mutation Is Consistently Absent in Hairy Cell Leukemia Variant: A Retrospective Analysis Using Pyrosequencing (1452)
P Khalili, D Chabot-Richards, J Gale, MA Vasef
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234 DBA.44 Positivity Is Predictive of Hairy Cell Leukemia Variant over Splenic Marginal Zone Lymphoma When Classic Hairy Cell Leukemia Is Excluded (1372)
DS Chabot-Richards, MH Evans, O Myers, Q-Y Zhang, K Foucar
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235 Annexin A1 (ANXA1), Key Confirmatory Marker Discriminating Hairy Cell Leukemia from Variant Hairy Cell Leukemia and Other Morphologically Similar B-Cell Neoplasms (1406)
S Gabriel-Griggs, M Bleile, A Bell, N Rosenthal, S Syrbu
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236 Monoclonality and Cytogenetic Abnormalities in Hylane-Vascular Castleman’s Disease (1376)
K-C Chang, I-C Liao, C Chang, H-L Song, D Jones
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237 Increased CD5 Positive Polyclonal B-Cells in Castleman Disease, and Lymphoid Hyperplasia with Castleman-Like Features: A Diagnostic Pitfall (1478)
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238 Sinus Histiocytosis with Massive Lymphadenopathy (Rosai-Dorfman Disease) Is Not Part of IgG4-Related Sclerosing Disease (1476)
L Liu, A Perry, W Cao, L Smith, E Hsi, J Mo, S Dotlic, I Damjanov, M Mosunjac, G Talmont, DD Weisenburger, K F
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239 Expression of Galectin-1 by EBV-Positive Lymphoproliferative Disorders (1379)
BJ Chen, J Ouyang, P Sinha, MA Shipp, CDM Fletcher, SJ Rodig
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240 Synoptic Reporting for Hematopathology (1439)
CE Jakabcz, A Nguyen
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241 Morphologic Changes in Myelodysplastic Syndrome Treated with Hypomethylating Agents (1526)
SK Rathke, H Olteanu, SK Rathke, MA Shipp, CDM Fletcher, SJ Rodig
Medical College of Wisconsin, Milwaukee, WI

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An Investigation of miRNAs in the Pathogenesis of Pediatric/Wild-Type Gastrointestinal Stromal Tumor (1956)
L Kelly, S Kim, K Bryan, M Debise-Rychter, MJ O’Sullivan
Our Lady’s Children’s Hospital, Crumlin, Dublin 12, Ireland

DAX-1 and ap2 beta Are Liable Markers of Translocation Positive Alveolar Rhabdomyosarcoma (ARMS) (1955)
B Di Vincenzo, A Rossolen, A Zin, E Lalli, V Guzzardo, R A I g g i
Padua University, Padua, Italy; CNRS UMR, Valbonne, France

Confocal Microscopy Image Analysis of Pancreatic B-Cells K<sup>ATP</sup> Channel Proteins in Congenital Hyperinsulinism (CHI) (1957)
SM Loisolo, Al Garippo, F Guedes, MC Zerbini
University of Sao Paulo Medical School, Sao Paulo, Brazil; HU-USP, Sao Paulo, Brazil; USP, Sao Paulo, Brazil
238 Employment of the ADAMTS13 Assay Improved the Accuracy and Efficiency of the Diagnosis and Treatment of Suspected Acquired Thrombotic Thrombocytopenic Purpura (2014)
  BD Barrows, J Teruya
  Baylor College of Medicine, Houston, TX

239 Effectiveness of Reporting Significant Diagnosis in Anatomic Pathology: Pathologists’ Roles and Challenges (2009)
  KL Kenerson, N Rasaei, V Nose
  University of Miami, Miami, FL

240 Analysis of Addendum Reports in Anatomic Pathology as a Quality Improvement Initiative (2003)
  J Babwah, MA Khalifa, C Rowse
  Sunnybrook Health Sciences Centre, Toronto, Canada

241 Improving Quality in the Laboratory by Implementing a Novel System of Ownership, Chain of Custody and Verification of Process and Patient (2002)
  AE Anderson, SE Mendrinos, MS Nagar, DA Kapoor, K Cerny
  Integrated Medical Professionals, PLLC, Garden City, NY; Know Error, Indianapolis, IN

242 Implementation of Lean Methods To Improve Histotechnology Productivity (2006)
  HS Currens, SS Raab
  Eastern Health Authority, St. John’s, NL, Canada; University of Washington, Seattle, WA

  M Udo, M Singh, J Liu, C Tornos
  SUNY Stony Brook University Medical Center, Stony Brook, NY

244 Quality Assurance Impact of Diagnostic Discrepancies (2005)
  J Cuff, T Longacre, DA Arber
  Stanford, Stanford, CA

245 Frozen Section – Permanent Correlation: An Audit of 3950 Cases (2001)
  M Metcalfe, X Gui, JT Joseph, A Pinto, T Ogilvie, Z Gao
  University of Calgary and Calgary Laboratory Services, Calgary, AB, Canada

246 Intraoperative Thyroid Frozen Section Consultation: A Continued Quality Dilemma and Monitoring Need (2006)
  CR Blieden, J Zeitouni, V Nose
  University of Miami/Jackson Memorial Hospital, Miami, FL

247 Evaluation of Communicating Frozen Section Diagnoses with Surgeons (2008)
  S Roy, AV Parwani, R Dhir, SA Yousem, SM Kelly, L Pantermanowitz
  University of Pittsburgh Medical Center, Pittsburgh, PA

248 Labeling Errors in a Surgical Pathology Gross Room: A Root Cause Analysis (2011)
  RL Schmidt, B Messinger, LJ Layfield
  University of Utah School of Medicine, Salt Lake City, UT; ARUP Laboratories, Salt Lake City, UT

  RE Weisbarger, SN Schutz, PP Seery, DE Ulinski
  Dartmouth-Hitchcock Medical Center, Lebanon, NH

250 Post-Analytical Phase Detection of Identification Errors in Anatomic Pathology (2013)
  MA Smith, LT Weihagen, NP Ohori
  University of Pittsburgh Medical Center-Presbyterian, Pittsburgh, PA

251 Studying Patient Misidentifications in the Surgical Pathology: Identifying the Root Cause of a Rare but Major Defect (2012)
  FA Meier, RC Varney, RJ Zarbo
  Henry Ford Health System, Detroit, MI

252 Improving Patient Safety: Instituting Mandatory “Pathology Specimen Time-Out” in the Operating Room as a Means for Reducing Patient/Specimen Identification Errors (2009)
  MJ Kubik, B Villas, A Mohammadi, S Shuja
  University of Florida College of Medicine, Jacksonville, FL

  A Hiniker, K White, C Oto, T Morken, L Perkocha
  UCSF, San Francisco, CA

254 Assessment of Gross Examination and Tissue Submission Practice in Hysterectomy Specimens with Leiomymata (2002)
  L Gai, H Currens, R Wirth, R Alaghehbandan, S Raab
  Memorial University of Newfoundland, St. John’s, NL, Canada

255 Standardized Procision Protocol Increases Detection Rate of Positive Circumferential Margins in Whipple Specimens (2002)
  DH Carpenter, I Nalbantoglu, EM Brunt
  Washington University in St. Louis, St. Louis, MO

256 Accuracy of the Measured Depth of Histologic Sections Compared to the Gross Specimen Measurement (2001)
  GW Friedel, TP Ahern, SR Tahan
  Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA; Channing Laboratory, Harvard Medical School, Boston, MA

257 Rapid On-Site Evaluation of Endobronchial Ultrasound Guided Transbronchial Needle Aspiration: A Practice To Preserve or Retire? (2011)
  LE Schwartz, GH Yu, ZW Baloch
  Hospital of the University of Pennsylvania, Philadelphia, PA

258 Utility of Retrospective Review of Non-Gynecological Cytology Cases (2007)
  R Jacques, S Goble-Ferguson, A Raminhos, M Weir
  London Health Sciences Centre, London, ON, Canada

259 A Retrospective Review of Parathyroidectomy Specimen Pathology: A Diagnostic Accuracy Study (2001)
  CM Kovacs, V Nose
  University of Miami, Miami, FL; Jackson Memorial Hospital, Miami, FL

260 Cytohistologic Correlation of Thyroid Lesions: The Effect of the Bethesda System for Reporting Thyroid Cytopathology (2006)
  F Bhajee, K Brown, L Akhtar, A Siddiqui
  University of Mississippi Medical Center, Jackson, MS

261 Thyroid FNAs and Clinical Outcomes: An Institutional Quality Assurance Project (2005)
  JL Odem, M Esebua
  University of Missouri, Columbia, MO
Adrenal Mass Fine Needle Aspirations and Their Radiologic and Clinical Correlation (2117)
TA Thurow, L Liu
NorthShore University HealthSystem, Evanston, IL; University of Chicago Pritzker School of Medicine, Chicago, IL

Building a Center of Excellence in Hematopathology: Review of CNB and FNA Samples To Improve the Current Workflow (2079)
K De Souza, L Duncan, J Snidow, Y Young, L Nodit
University of Tennessee Medical Center, Knoxville, TN

Potential Diagnostic Pitfalls Related to Bone Marrow Biopsy Quality in Staging Diffuse Large B-Cell Lymphoma (2102)
E Montgomery, A Chevalier, V Neppalli
Roswell Park Cancer Institute, Buffalo, NY

Pitfalls in Flow Cytometry: Diagnostic Challenges for a Pathologist (2116)
B Thakral, K Saluja, M Eldibany, LJ Check
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Low Accuracy of Manual White Blood Cell Count in Amniotic Fluid (2099)
E McMillen, J Bautista, A Sireci, A Kratz, B Stotler
Columbia University, New York, NY

Interobserver Variability of Lymph Node Count in Pelvic Lymph Node Dissection for Prostate Cancer (2097)
CA Mathe, M Westerhoff, S Dintzis, R Schmidt, L True
University of Washington, Seattle, WA

Eye-Tracking Experiments Underscore the Bias That Architecture Exerts on Nuclear Grading in Prostate Cancer (2068)
D Bombari, B Mora, SC Schaefer, F Mast, H-A Lehr
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T Trongwongsa, J Tanboon, A Nimmannit, A Pongpaibul
Siriraj Hospital, Bangkok, Thailand

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TM Barr, JF Silverman, DJ Triulzi, M Yazer
Allegheny General Hospital, Pittsburgh, PA; UPMC, Pittsburgh, PA; Institute of Transfusion Medicine, Pittsburgh, PA

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BT Haws, E Thorpe, LL Tilzer
University of Kansas Medical Center, Kansas City

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LJ Layfield, RE Factor, EA Jarboe
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Effectiveness and Efficiency in the Evaluation of Pathological Specimens of Limited or No Clinical Value (2080)
TR Finch, HS Currens, SS Raab
Memorial University, St. John’s, NL, Canada

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DA Turbin, B Smith, S Leung, AM Gown, TO Nielsen, DN Ionescu
University of British Columbia, Vancouver, BC, Canada; Genetic Pathology Evaluation Centre, Vancouver, BC, Canada; BC Cancer Agency, Vancouver, BC, Canada; PhenoPath Laboratories, Seattle, WA

The Impact of Immunohistochemistry on Turn-around-Times in Surgical Pathology Reporting (2065)
JA Bennett, H Mani
PSMSHMC, Hershey

Analysis of Immunohistochemical Usage in Different Pathology Practice Settings (2112)
AA Shah, MJ Mentriskoski, HF Frierson, HP Cathro
University of Virginia, Charlottesville

A Method for Decreasing Interobserver Variability in Quantitative HER2 Immunohistochemistry (2104)
DP Ng, LJ Dumont, GJ Tsongalis, V4 Memoli
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Review of ER, PR, and Her-2 Neu Immunohistochemistry Should Be Performed for Breast Cancer Patients Transferring Care to Another Institution (2088)
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A Web-Based Tracking System to Facilitate Transfer of Patient Care between Residents in a Multi-Site Academic Anatomic Pathology Department: A Solution to JCAHO and ACGME Mandates for Optimizing Patient “Handoffs” (2078)
JL Davis, TA Saunders, E Terrazas, JT Rabban
UCSF, San Francisco

Genetic Markers of Cancer – A Molecular Oncology Laboratory Adjusts to Changing Demands of Integrated Hospitals, Medical Centers and Outreach Services (2071)
M Cankovic, L Whiteley, J Beher, DA Chitale
Henry Ford Hospital, Detroit, MI

Specimen Consideration for EGFR Mutational Analysis in Non-Small Cell Lung Cancer (2123)
W Xiong, C Pritchard
University of Washington, Seattle, WA

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G Rasty, AV Park, SE Crafter, DJ Kuni, MM Wier, AL Wolfshon, JL Yawney, J Gunn-Munro, G Flynn
University Health Network, Toronto, ON, Canada; Quality Management Program-Laboratory Services, Toronto, ON, Canada; Mount Sinai Hospital, Toronto, ON, Canada; William Osler Health System, Brampton, ON, Canada; London Health Sciences Centre, London, ON, Canada; Gamma-Dynacare Medical Laboratories, Ottawa, ON, Canada

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MJ Swadley, ML Jones, AB Farris
Emory University, Atlanta, GA
285 Image Analysis and Next Generation Sequencing: Strange Bedfellows for Quality Assurance of KRAS Mutational Status in Colorectal Cancer (2130)
JP Baliff, Z-X Wang, SC Peiper
Thomas Jefferson University, Philadelphia, PA

286 Whole Genome SNP Array Analysis Is Complementary to Classical Cytogenetic Analysis in the Evaluation of Lymphoid Proliferations (2138)
SE Gibson, J Luo, M Sathanoorri, R Parikh, GK Michalopoulos, SH Sverdlow
University of Pittsburgh School of Medicine, Pittsburgh, PA

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J Prather, S Sonawane, G Chappell, S Akkina, V Lindgren, S Setty
University of Illinois at Chicago, Chicago, IL

288 Detection of ALK Gene Rearrangements in Pulmonary Adenocarcinoma: Assess for Typical and Atypical Abnormal Patterns (2148)
KK Reichard
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289 Molecular Diagnostic Analysis of Supernatant Fluid from Fine Needle Aspirate, Bile Duct Brushing and Effusion Cytology Specimens (2131)
WW Bivin, JF Silverman, SD Finkelstein, Y Liu, A Mohanty, B Ujevich, C Binkert, U Krishnamurti
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290 Analysis of IDH1 and IDH2 Mutations in Myeloid Neoplasms Using Archived Bone Marrow Frozen Cell Pellet and Pyrosequencing Technology (2157)
N Steider, J Gale, M Yasef
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291 Quantitative Assessment of BK Virus-Associated Nephropathy from Renal Transplant Patient Biopsies by Real-Time PCR (2141)
Y Jiang, K Muldrew
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292 Splenic Manifestation of Chronic Autoimmune Disease: A Report of Five Cases with Histiocytic Necrotizing (Kikuchi-Fujimoto-Like) Change in Four Cases with Use of 16s rDNA PCR To Exclude Infection (2128)
NS Aguilera, TA Summers, B Zhang, A Auerbach
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293 Characteristics of Co-Amplification at Lower Denaturation Temperature-PCR (COLD-PCR) for KRAS Mutant Detection in Colorectal Carcinoma (2169)
S Zhang, J Tall
SUNY Upstate Medical University, Syracuse, NY

294 Effect of Decalcification Agents on Nucleic Acid Quantity and Quality (2153)
VM Singh, RC Salanga, YK Tran, J Gallindo, PA Plumlee, SW Chu, MG Erlander, MR Peterson
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295 RNA from Archived FFPE Blocks – A Valuable Underexploited Resource (2143)
TJ Kokkat, VA Liviolsi, M Patel, D McGarvey, MZ Islam, G Piermatteo, ZW Baloch
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296 Extraction and Molecular Screening of Decade-Old mRNA from Archived Breast Cancer Tissues (2146)
DE Nowak, LP Roquero, DA Chitale
Henry Ford Hospital, Detroit, MI

297 Enabling Translational Research by Integrating Molecular Pathology Data with Tumor Annotation Data for Research in Head and Neck Cancers (2155)
H Singh, W Amin, AM Egloff, JR Hetrick, J Grandis, AV Parwani
University of Pittsburgh, Pittsburgh, PA; University of Pittsburgh Medical Center, Pittsburgh, PA

298 An Informatics Based Tumor Specific Data (TSD) Model with Pathology Annotations To Support Translational Research in Inter and Intra- Institutional Tumor Repositories (2154)
H Singh, W Amin, AV Parwani
University of Pittsburgh, Pittsburgh, PA

299 Neither Brief Formalin Fixation nor Rapid Tissue Processing Impact the Sensitivity of ER Immunohistochemistry in Core Biopsies of the Breast (2159)
V Sujoy, M Nadji, AR Morales
University of Miami, Jackson Health System and Sylvester Cancer Center, Miami, FL

300 Validation of Histology Tissue Processing and Stain Quality of Logos Rapid-Cycle Microwave Processor in Lean Continuous Flow Operations (2166)
JJ Zarbo, RC Varnes, MJ Dib, B Mahar, J Wozniak
Henry Ford Hospital, Detroit, MI

301 Diagnostic Tissue Preparation: Further Assessment of Microwave-Based Compared to Conventional Tissue Processing (2132)
CR Blieden, MC Reyes, MT Garcia-Butirago, V Nose, S Vernon, AR Morales
University of Miami/Jackson Memorial Hospital, Miami, FL; Memorial Sloan-Kettering, Miami, FL

302 Dynamic Telepathology-Assisted Review of Previously Misdiagnosed Frozen Sections Shows Increased Accuracy over Single Pathologist-Rendered Diagnoses (2151)
A Shah, S Sheikh-Fayyaz, T Bhuinya, NJ Morgenstern
Hofstra North Shore-LIJ School of Medicine, Lake Success, NY

303 “Transparency” in Reporting of Radical Prostatectomy Specimens: A Simple Technique for Whole Mount Topographical Mapping of Tumor Burden Using Conventional Histologic Sections (2150)
R Sams, A Matoso, N Shillingford, S Chen, D Treaba, E Yakirevich, RA DeLellis, M Resnick, S Mangray
Rhode Island Hospital & Alpert Medical School of Brown University, Providence, RI
Real-Time Histologic Assessment of CT-Guided Percutaneous Needle Core Biopsies of the Transplant Pancreas (2164)
R Wilcox, AD Bhave, P Gibson
Fletcher Allen Health Care (FAHC)/University of Vermont (UVM), Burlington; FAHC/UVM, Burlington

An Informatics Supported Tissue Banking Inventory and Operational System for Anatomic Pathology. Biospecimen Inventory and Operations System (BIOS): An Update (2129)
W Amin, A Vemulapalli, L Mock, M Biscoglia, R Dhir, AV Parwani
University of Pittsburgh, Pittsburgh, PA; University of Pittsburgh Medical Center, Pittsburgh, PA

Effects of Long Term Tissue Fixation on the Immunohistochemical Expression of MSI Makers in Colon Adenocarcinoma (2126)
P Adegboyega
LSU Health Sciences Center, Shreveport, LA

Application of Design of Experiment (DOE) Principles to the Development of Biologic Control Materials in Immunohistochemistry (2135)
J Erickson, D Huang, M Hudson, S Webster
Dako North America, Inc., Carpinteria, CA

Novel Quantitative Image-Analysis Based Scoring Technique for In-Situ Assessment of mRNA in Archival Tumor Tissues: Strong Correlation between Manual and Automated Schemes (2139)
JC Hanson, TR Holzer, AD Fulford, RJ Konrad, A Nasir
Eli Lilly & Co., Indianapolis; Laboratory for Exp Medicine, Indianapolis, IN

Validation of HER2 Immunohistochemical Stain Gastric Scoring Criteria for Esophagogastric Cancer (2145)
DM Minot, HH Yoon, JS Voss, MR Henry, J Zhang, T-T Wu, RP Ketterling, AC Clayton
Mayo Clinic, Rochester, MN

Is ER Immunohistochemical Sensitivity Affected by Different Breast Biopsy Techniques with Differing Cold Ischemia Times? (2160)
V Sujoy, A Pinto, AP Romilly, M Jorda, CR Gomez-Fernandez
Jackson Memorial Hospital/University of Miami, Miami, FL; Jackson Memorial Hospital, Miami, FL

Validation of Whole Slide Imaging for the First Line Diagnosis of Prostate Biopsies (2167)
J Zeitouni, M Jorda, C Reyes, M Nadji
University of Miami, Jackson Health System and Sylvester Cancer Center, Miami, FL

Automated Objective Determination of Percentage of Malignant Nuclei for Mutation Testing (2162)
H Viray, M Coulter, K Li, K Lane, C Hoyt, D Rimm
Yale University School of Medicine, New Haven, CT; Caliper Life Sciences, Hopkinton, MA

SLIM as an Optical Tool To Support Pathologists in Prostate Diagnosis (2156)
S Sridharan, R Tapping, A Kajdacsy-Balla, K Tangella
Beckman Institute for Advanced Science and Technology, University of Illinois at Urbana-Champaign, Urbana, IL; University of Illinois at Chicago, Chicago, IL; Christie Clinic and University of Illinois at Urbana-Champaign, Urbana, IL
EVENING SPECIALTY CONFERENCE
Cardiovascular Pathology
Monday, March 19, 2012
7:30 – 9:30 PM
Convention Centre 220-222
Corona Mortis: Myocardial Ischemia - Morphology and Contemporary Views on Causation and Forensic Aspects

Moderator:
JAGDISH W. BUTANY, MBBS
Toronto General Hospital
Toronto, ON, Canada

Panelists:
Coronary Artery Disease and Myocardial Ischemia
JAMES R. STONE, Mass General Hosp, Boston, MA

Pathophysiology of Myocardial Ischemia
CARMELA D. TAN, Cleveland Clinic, Cleveland, OH

Coronary Artery Pathology of Surgical Interventions
MARY N. SHEPPARD, Royal Brompton Hospital, London, England

Coronary Artery Disease: Interventional Pathology
RENU VIRMANI, CV Path, Gaithersburg, MD

Sudden Death and Myocardinal Ischemia: The Forensic Approach
CHRISTOPHER MILROY, The Ottawa Hospital, Ottawa, ON

Please Note –
Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
EVENING SPECIALTY CONFERENCE
Infectious Diseases Pathology

Monday, March 19, 2012
7:30 – 9:30 PM
Convention Centre 301-305
Here, There and Yonder

Moderator:

JEANNETTE GUARNER, MD
Emory University
Atlanta, GA

Panelists:
AMY L. ADAMS, Emory University, Atlanta, GA
A. BRIAN WEST, Yale University, New Haven, CT
LAURA W. LAMPS, Univ of AR/Medical Sciences, Little Rock, AR
JOSE JESSURUN, Univ of Minnesota, Minneapolis, MN
JEANNETTE GUARNER, Emory University, Atlanta, GA

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EVENING SPECIALTY CONFERENCE
Surgical Pathology

Monday, March 19, 2012
7:30 – 9:30 PM
Convention Centre Ballroom A–D
The Best Damned Teaching Case You Have Ever Come Across in Your Specialty

Moderator:

HENRY D. APPELMAN, MD
Univ of Michigan Hosp
Ann Arbor, MI

Panelists:
LAURA C. COLLINS, Beth Israel Deaconess MC, Boston, MA
MILTON J. FINEGOLD, Texas Children’s Hosp, Houston, TX
WENDY L. FRANKEL, The Ohio State University, Columbus, OH
TERI A. LONGACRE, Stanford University, Stanford, CA
SCOTT OWENS, University of Michigan, Ann Arbor, MI

Please Note –
Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
SPECIAL COURSE
Basic Principles in Cytology
Tuesday, March 20, 2012
8:00 AM – 5:00 PM
Convention Centre 301-305

Course Director: Tarik Elsheikh, MD, Cleveland Clinic, Cleveland, OH

Course Description:
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 FNA’s. 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 power point lectures and images.

8:00 AM Introduction
Tarik Elsheikh, MD, Cleveland Clinic, Cleveland, OH

8:05 AM Fundamentals of Cytology
Tarik Elsheikh, MD, Cleveland Clinic, Cleveland, OH
- 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.

8:45 AM Cervical Cytology
Edmund S. Cibas, MD, Brigham and Women’s Hospital and Harvard Medical School, Boston, MA
- To understand the role of cervical cytology in screening for cervical cancer and its precursors.
- To understand common terminology for reporting Pap test results.
- To know the criteria for judging specimen adequacy.
- To be able to recognize the commonly encountered infectious organisms.
- To be able to recognize squamous and glandular lesions on a Pap test and their histologic correlates.

9:30 AM Questions and Coffee Break

10:00 AM Effusion Cytology
Jan F. Silverman, MD, Allegheny General Hospital and Temple University School of Medicine, Pittsburgh, PA
- The participants will learn a pattern recognition approach for effusion cytology diagnosis.
- The participants will learn the appropriate use of ancillary studies in the work up of problematic effusion cytology.
- The participants will appreciate the value of cytologic and clinical correlation including the importance of age, gender, and site of the effusion for correct diagnosis.

11:20 AM Basic Thyroid Cytomorphology
Zubair W. Baloch, MD, Hospital of the University of Pennsylvania, Philadelphia, PA
- 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.

12:00 PM Lunch Break
1:00 PM  Basics in Lymph Node Cytopathology  
Paul E. Wakely, MD, *The Ohio State University College of Medicine, Columbus, OH*  
- 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.

1:45 PM  Respiratory Cytopathology  
Celeste N. Powers, MD, PhD, *Virginia Commonwealth University Health System, Richmond, VA*  
- To review the basic cytomorphologic criteria for common infectious processes and neoplasms amenable to cytodiagnosis.  
- To review the use of the Diff Quik and other special stains in the diagnosis of infectious agents.  
- To discuss the pitfalls and mimics associated with primary lung malignancies.  
- To review the utility of immunohistochemistry in the diagnosis and subclassification of non small cell lung carcinoma.

2:30 PM  Questions and Break

3:00 PM  FNA Biopsy of Liver  
Richard M. DeMay, MD, *The University of Chicago, Chicago, IL*  
- Learn normal cytology of the liver.  
- Learn normal cytology of the liver.  
- Learn to distinguish hepatocellular carcinoma from metastatic carcin.

3:45 PM  Basic Principles of Pancreatic Cytology  
Martha Bishop Pitman, MD, *Harvard Medical School and Massachusetts General Hospital, Boston, MA*  
- Recognize normal pancreatic acinar and ductal cells.  
- Distinguish gastrointestinal contamination from the stomach and duodenum from lesional epithelium.  
- Understand the criteria for the common tumors of the pancreas.  
- Understand the benefits and limitations of ancillary testing in diagnosis.

4:30 PM  Questions and Answer Session

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SPECIAL COURSE
Advanced Molecular Pathology
Tuesday, March 20, 2012  
8:00 AM – 1:00 PM  
Convention Centre 220-222

Course Director:  Frederic G. Barr, MD, PhD, National Cancer Institute, Bethesda, MD

Course Description:
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.

8:00 AM  Introduction  
Frederic G. Barr, MD, PhD, *National Cancer Institute, Bethesda, MD*

8:10 AM  Novel Methods for the Capture and Analysis of Circulating Tumor Cells  
Richard J. Cote, MD, *University of Miami Miller School of Medicine, Miami, FL*  
- Review the importance of metastasis in clinical decision-making, and the role of circulating tumor cells (CTC) in the metastatic process.  
- Discuss the potential for CTC analysis to improve cancer patient management.  
- Outline the currently available methods for CTC enrichment and analysis.  
- Describe a novel membrane microfilter device for capture of CTC, and some of the techniques available for the molecular characterization of CTC using this device.
8:55 AM Translating Mass Spectrometry-Based Proteomic Analysis of Lymphoma for Clinical and Research Applications
Megan S. Lim, MD, PhD, University of Michigan, Ann Arbor, MI
- Become familiar with principles and concepts of mass spectrometry-based proteomics for identification of proteins expressed by lymphoma cells.
- Become familiar with proteomic strategies for characterizing deregulated signaling pathways using phosphoproteomic analysis.
- Become familiar with experimental strategies for characterizing cell surface proteins using glycoproteomic analysis.

9:40 AM Next Generation Sequencing and Anatomic Pathology: From Today’s Discovery Tool to Tomorrow’s Microscope
David G. Huntsman, MD, University of British Columbia, Vancouver, BC, Canada
- Show how next generation sequencing has accelerated the discovery of new cancer genes and opened up new vistas into cancer biology.
- Describe how pathologists are uniquely positioned to lead or make valuable contributions to next generation sequencing empowered biomarker and therapeutic target discovery research.
- Explain how next generation sequencing as a clinical tool will completely change many of the ways we think about and study cancers.

10:25 AM Coffee Break

10:45 AM Routine Sequencing of Microbial Genomes as a Value-Added Enterprise
James M. Musser, MD, PhD, The Methodist Hospital System, Houston, TX
- Understand the technical status and limitations of full-genome analysis of microbial pathogens.
- Learn about recent applications of bacterial full-genome analyses in clinical microbiology.
- Learn about the future of full-genome analyses in clinical microbiology.

11:30 AM Integrins: Sticky Regulators of Normal Biology and Tumor Progression
Mary M. Zutter, MD, Vanderbilt University, Nashville, TN
- Understand the structure and function of the integrin family of cell surface adhesion receptors.
- Review the role that integrins play in normal development - knowledge gained from human developmental abnormalities and mouse models.
- Describe changes in the integrin repertoire associated with cancer initiation and progression.
- Highlight the role of integrins in tumor metastasis.
- Present novel integrin-targeted strategies for cancer and angiogenesis.

12:15 PM Integrating Large Scale Molecular Data Sets for Genomic-Digital Pathology Studies
Daniel J. Brat, MD, PhD, Emory University School of Medicine, Atlanta, GA
- Understand the scope of the molecular, pathology and imaging data that is being collected by the Cancer Genome Atlas (TCGA) Project.
- Understand how digital pathology and radiology images from TCGA can be integrated with molecular data to address fundamental questions in tumor biology.
- Understand how academic pathologists can lead future efforts in TCGA initiatives by integrating morphology and molecular data.

SPECIAL COURSE
Navigating the Academic Waters: A Survival Guide for Residents and Junior Faculty
Tuesday, March 20, 2012
2:00 – 4:00 PM
Convention Centre 220-222

Course Directors: Sharon W. Weiss, MD, Emory University School of Medicine, Atlanta, GA
Peter E. Jensen, MD, 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.
PROFFERED PAPERS
Tuesday, March 20, 2012
8:00 AM - 12:00 PM
CC Ballroom A/B

Section A - Genitourinary (Including Renal Tumors)
Chaired by: Thomas Wheeler and Steven Shen

8:00
Improved Method of Detecting the ERG Gene Rearrangement in Prostate Cancer Using Combined Dual-Color Chromogenic and Silver In-Situ Hybridization (808)
M Braun, J Stomper, D Boehm, W Vogel, V Scheible, N Wernert, Z Shaikibrahim, F Fend, G Kristiansen, S Perner
University Hospital of Bonn, Bonn, Germany; University Hospital of Tuebingen, Tuebingen, Germany

8:15
Does SPOP-Mutated Prostate Cancer Have Specific Morphology? (1035)
Weill Medical College of Cornell University, New York, NY; The Broad Institute of Harvard and MIT, Cambridge, MA; Harvard Medical School, Boston, MA

8:30
Landscape of Chromosome Number Changes during Prostate Cancer Progression (1018)
J Stomper, M Braun, W Vogel, D Boehm, V Scheible, F Fend, S Perner
University Hospital of Bonn, Bonn, Germany; University Hospital of Tuebingen, Tuebingen, Germany

8:45
Diagnostic Utility of a Comprehensive Immunohistochemical Panel To Differentiate High Grade Urothelial Carcinoma (UCa) from Prostatic Adenocarcinoma (PCa) (958)
SK Mohanty, D Luthringer, AM Gown, M Aron, MB Amin
Cedars-Sinai Medical Center, Los Angeles, CA; PhenoPath Laboratories, Seattle, WA

9:00
The Diagnostic Accuracy and Clinical Role of Percutaneous Renal Needle Core Biopsy in Renal Cortical Neoplasms (861)
LL Gellert, R Mehra, Y Chen, A Gopalan, S Fine, H Al-Ahmadi, VE Reuter, S Tickoo
Memorial Sloan-Kettering Cancer Center, New York, NY

9:15
A New microRNA-Based Diagnostic Test for Classification of Kidney Tumors (854)
E Fridman, S Rosenwald, E Meiri, E Goren, S Zilber, Y Huang, I Barshack, I Burnstein, I Krivitsky, M Zepeniak, N Dromi, Y Goren, Y Spector
Sheba Medical Center, Tel-Hashomer, Israel; Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel; Rosetta Genomics Ltd., Rehovot, Israel; Rabin Medical Center, Petah Tikva, Israel; Temple University Hospital, Philadelphia, PA

9:30
RECESS, EXHIBITS, POSTER SESSION III

11:00
miRNA Profiling in Metastatic Renal Cell Carcinoma Reveals a Tumor Suppressor Effect for miR-215 (1055)
NMA White, HWZ Khella, J Grigull, S Adzovic, YM Youssef, RJ Honey, R Stewart, KT Pace, GA Bjarnason, MAS Jewett, AJ Evans, M Gabriel, GM Youssef
St. Michael’s Hospital, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada; York University, Toronto, ON, Canada; Sunnybrook Health Sciences Center, Toronto, ON, Canada; Princess Margaret Hospital, Toronto, ON, Canada; London Health Sciences Center, London, ON, Canada

11:15
Clear Cell Renal Cell Carcinomas That Respond to Tyrosine Kinase Inhibitor Sunitinib Have Distinct microRNA Expression Patterns from Non-Responders (1079)
M Zhou, K Streator Smith, P Carver, S Falzarano, L Wood, B Rini, C Magi-Galluzzi
Cleveland Clinic, Cleveland, OH; New York Univeristy, New York

11:30
Practice-Based Differences in Ancillary Stain Usage When Evaluating Prostate Needle Core Biopsies (992)
BD Robinson, RK Yantiss
Weill Cornell Medical College, New York

11:45
Prostate Total Tumor Extent vs. Index Tumor Extent: Which Is Predictive of Biochemical Recurrence Following Radical Prostatectomy? (802)
A Bills, L Meirelles, LLL Freitas, AS Polidoro, HA Fernander, MM Padilha, LA Magna, LO Reis, U Ferreira
University of Campinas (Unicamp) School of Medicine, Campinas, SP, Brazil

PROFFERED PAPERS
Tuesday, March 20, 2012
8:00 AM - 12:00 PM
CC Ballroom C

Section B - Breast
Chaired by: Adriana Corben and Dhananjay Arun Chitale

8:00
Characterisation of the Repertoire of Gene Copy Number Changes and Gene Mutations in the Progression from In Situ to Invasive Breast Cancer (103)
A Campion-Flora, L Hernandez, P Wilkerson, MB Lambros, DN Rodrigues, A Gauthier, A Mackay, R Natrajan, JS Reis-Filho
The Institute of Cancer Research, London, United Kingdom; Institut Curie, Paris, France

8:15
Comprehensive Genomic Profiling of Breast Cancer by Massively Parallel Sequencing Reveals New Routes to Targeted Therapies (253)
J Ross, C Sheehan, A Parker, M Jarosz, S Downing, R Yelensky, D Lipson, P Stephens, G Palmer, M Cronin
Albany Medical College, Albany, NY; Foundation Medicine Inc., Cambridge, MA

8:30
Prediction of Oncotype DX Recurrence Score: Use of Equations Derived by Linear Regression Analysis (182)
ME Klein, DJ Dabbs, Y Shuai, R Bhargava
University of Wisconsin, Madison, WI; Magee-Womens Hospital of UPMC, Pittsburgh, PA; University of Pittsburgh Cancer Institute, Pittsburgh, PA

8:45
Breast Micropapillary Carcinomas: RNA-Seq and Mutation Profiling (207)
C Marchio, DN Rodrigues, P Wilkerson, MB Lambros, B Weigelt, A Sapino, A Mackay, C Maher, R Natrajan, JS Reis-Filho
University of Turin, Turin, Italy; The Institute of Cancer Research, London, United Kingdom; Cancer Research UK London Research Institute, London, United Kingdom; Washington University School of Medicine, St Louis

9:00
The Predictive Value of P53 Expression to Anthracycline-Based Neo-Adjuvant Therapy in Triple Negative Breast Cancer Patients (301)
JT Yang, CZ Liu, W Dooley, R Squires, E Jett, J Parker
OUHSC, Oklahoma City, OK
9:00 MicroRNA Profiles of the Bone Marrow Microenvironment and Serum in Multiple Myeloma Reveal MicroRNAs in the Serum Associated with Myeloma (1369)  
KR Calvo, W Wang, M Corrigan-Cummins, A Zingone, R Costello, N Korde, I Ghobrial, O Landgren  
NIH Clinical Center, Bethesda, MD; National Cancer Institute, Bethesda, MD; Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA

9:15 Plasma Cell Distribution within the Vascular Niche and Micro-Vessel Density Correlate with Gene Expression Profile (1536)  
ME Salama, F Zhan, H Lange, J Kohan, N Landis, S Tripp, J Kruger, S Poits  
University of Utah, Salt Lake City; Flagship Biosciences, Flagstaff

9:30 RECESS, EXHIBITS, POSTER SESSION III

11:00 Concordance of Tumor Grade, ER and Her2+ER- Status with Gene-Expression-Based Profile Studies: Boosted Classification (127)  
LW Dalton  
South Austin Hospital, Austin, TX

11:15 Molecular Difference between Pure Ductal Carcinoma In Situ (DCIS) and the DCIS Component of Invasive Ductal Carcinoma (108)  
H Chen, J Wang, B Wei, J Da, DG Hicks, P Tang  
University of Rochester Medical Center, Rochester, NY; RTI Health Solution, Research Triangle Park, NC

11:30 Targeted Overexpression of EZH2 to the Mammary Gland Accelerates ErbB2-Driven Tumorigenesis (193)  
X Li, ME Gonzalez, ML DuPrie, KA Toy, CG Kleer  
University of Michigan, Ann Arbor

11:45 LYRIC Is Associated with an Increased Incidence of Distant Metastasis and Loco-Regional Recurrence in Patients with Breast Carcinoma (96)  
JP Bergeron, HT Richard, J Richey, JA Almenara, MO Idowu  
Virginia Commonwealth University, Richmond, VA

PROFFERED PAPERS  
Tuesday, March 20, 2012  
8:00 AM - 12:00 PM  
CC 211-214  
Section C - Hematopathology  
Chaired by: Robert Lorsbach and Pei Lin

8:00 Novel Recurrent Gains and Deletions in Adults with Anaplastic Large Cell Lymphoma (1422)  
SD Held, MC Kinney, EA Medina, RA Higgins  
University of Texas Health Science Center at San Antonio, San Antonio, TX

8:15 Rearrangements at the 6p25.3 Locus Identify a Subset of Systemic ALK-Negative Anaplastic Large Cell Lymphomas with Favorable Prognosis (1508)  
ER Parrilla Castellar, KL Grogg, ME Law, G Vasmatzis, SM Ansell, A Dogan, AL Feldman  
Mayo Clinic, Rochester, MN

8:30 NOTCH1 Intracellular Domain Immunohistochemistry as a Diagnostic Tool To Distinguish T-Lymphoblastic Lymphoma from Thymoma (1442)  
AG Jegalian, J Bodo, TR Holzer, JM Grondin, AD Fulford, BL Ackermann, RJ Konrad, A Nasir, AE Schade, ED Hsi  
Cleveland Clinic, Cleveland, OH; Lilly Research Laboratories, Eli Lilly and Company, Indianapolis, IN

8:45 Negative TdT Expression Predicts Adverse Treatment Outcome in T-Lymphoblastic Leukemia/Lymphoma in Adults (1614)  
Y Zhou, M Routhart, KH Young, S Wang, D Hoehn, G Tang, C Bueso-Ramos, CC Yin, RN Miranda, LJ Medeiros, P Lin  
The University of Texas, MD Anderson Cancer Center, Houston, TX

PROFFERED PAPERS  
Tuesday, March 20, 2012  
8:00 AM - 12:00 PM  
CC Ballroom D  
Section D - Gastrointestinal  
Chaired by: Elizabeth Montgomery and Robert Najarian

8:00 Eosinophilic Gastritis in Children: A Clinicopathological Study (685)  
H-BM Ko, M Chehade, RA Morotti  
Mount Sinai School of Medicine, New York, NY; Yale University School of Medicine, New Haven, CT

8:15 Reproducibility of the Diagnosis of Malignant Colorectal Polyps (754)  
B Terris, G Belleeannee, D Chatelain, J Cucherousset, M-D Diebold, J-F Flejou, A Fricker, G Monges, F Piard, J Ramos, M-C Saint-Paul, J-Y Scouzec, N Yazigi, V Viallon  
Hôpital Cochin, Assistance Publique-Hôpitaux de Paris, Université Paris Descartes, Paris, France; CHU, Bordeaux, France; CHU, Amiens, France; CH Inter Communal, Le Raincy Monfermeil, France; CHU, Reims, France; Hôpital Saint-Antoine, Paris, France; CHG Mulhouse, Mulhouse, France; Institut Paoli-Calmettes, Marseille, France; CHU, Dijon, France; CHU, Montpellier, France; CHU, Nice, France; CHU, Lyon, France; Hôpital Kremlin Bicêtre, Paris, France
8:30  Ectopic Crypt Formation and Other Histological Parameters in Relation to BRAF and KRAS Mutation Status of Dysplastic Serrated and Non-Serrated Colorectal Polyps (717)
MJ O’Brien, RD Odze, S Cerda, H Xu, K Downey, B Burke, CS Huang, FA Farraye, S Yang
Boston University Medical Center, Boston, MA; Brigham & Women’s Hospital, Harvard Medical School, Boston, MA

8:45  Interaction of Cancer Stem-Like Cells and Growth Factor Receptors in the Evolution of Colorectal Cancers during Aging (742)
S Sethi, E Levi, A Majumdar
Wayne State University Medical School, Detroit, MI; VA Hospital, Detroit, MI

9:00  Expression of HPV L1 Capsid Protein in Anal Condyloma and Anal Squamous Intraepithelial Neoplasia (ASIN) (724)
DT Patil, B Yang
Cleveland Clinic, Cleveland, OH

9:15  miRNA Expression Pattern in Indeterminate Colitis (700)
J Lin, Q Cao, J Zhang, Y Li, JR Goldblum, MP Bronner-Fraser
Indiana University School of Medicine, Indianapolis, IN; University of Michigan, Ann Arbor, MI; Cleveland Clinic, Cleveland, OH; University of Utah, Salt Lake City, UT

9:30  RECESS, EXHIBITS, POSTER SESSION III

11:00  Identification of Novel Gene Mutations and Interactions That Determine Paneth Cell Granule Phenotype in Crohn’s Disease (704)
T-C Liu, KL VanDussen, RD Mitra, R Head, EA Montgomery, TS Sappenbeck
Johns Hopkins U, Baltimore; Washington U., St. Louis

11:15  Sporadic Fundic Gland Polyps with Low-Grade Dysplasia: A Large Case Series To Assess Clinicopathologic Behavior (697)
M Levy, B Bhattacharya
Caris Diagnostics, Phoenix, AZ

11:30  Genomic Analysis of Esophageal Columnar Cell Metaplasia Reveals Less Frequent Changes in Non-Goblet Cell Metaplasia Than Intestinal Metaplasia (643)
S Bandla, K Thoms, V Little, T Watson, J Peters, K Song, TE Godfrey, Z Zhou
University of Rochester Medical Center, Rochester, NY

11:45  Immunohistochemical Features of Intestinal and Foveolar Dysplasia in Barrett’s Esophagus (630)
AT Agoston, RD Odze, GY Lauwers, A Srivastava
Brigham & Women’s Hospital, Boston, MA; Massachusetts General Hospital, Boston, MA

PROFFERED PAPERS
Tuesday, March 20, 2012
8:00 AM - 12:00 PM
CC 202-204
Section E - Gynecologic & Obstetrics
Chaired by: Teri Longacre and W. Dwayne Lawrence

8:00  A Population-Based Study of Ovarian Serous Borderline Tumors (SBTs) with Uniform Pathology Review and Long-Term Follow-Up (1256)
R Vang, CG Hannibal, SK Kjaer, J Junge, K Frederiksen, A Kjaerbye-Thygesen, RJ Kurman
The Johns Hopkins Hospital, Baltimore; Danish Cancer Society, Copenhagen, Denmark; Hvidovre Hospital, Hvidovre, Denmark

8:15  Endocervical-Type Mucinous Borderline Tumors Are Related to Endometrioid Tumors Based on Mutation and Loss of Expression of ARID1A (1264)
CH Wu, T-L Mao, R Vang, A Ayhan, RJ Kurman, J-M Shih
Johns Hopkins Medical Institutions, Baltimore, MD; National Taiwan University College of Medicine, Taipei, Taiwan

8:30  Specialized Pathology Review in Patients with Ovarian Cancer: Highly Recommended To Assure Adequate Treatment. Results from a Prospective Study (1178)
S Kommos, J Pfisterer, A Reuss, A du Bois, J Diebold, S Hauptmann, D Schmidt, F Kommos
AGO Study Group, Wiesbaden, Germany

8:45  Invasion Patterns of Metastatic Pelvic High-Grade Serous Carcinoma Are Associated with BRCA Alterations (1238)
C’Reyes, DA Levine, R Roslow
Memorial Sloan-Kettering Cancer Center, New York, NY

9:00  Wolffian Tumors of the Female Genital Tract: A Study of 32 Cases (1114)
D DeLair, K Van de Vijver, KJ Park, E Oliva
Memorial Sloan-Kettering Cancer Center, New York, NY; Massachusetts General Hospital, Boston, MA

9:15  Endometriosis-Associated Carcinomas Exhibit Significant Site-Specific Differences: Analysis of 396 Cases (1212)
FN Moore, L Pan, TA Longacre
Stanford, Palo Alto, CA

9:30  RECESS, EXHIBITS, POSTER SESSION III

11:00  Clinical Outcome of Patients with Insufficient Sample on Endometrial Biopsy or Curettage (1271)
X Yang, Y Liu
University of Massachusetts Medical School, Worcester, MA

11:15  Differential Expression of Heart and Neural Crest Derivatives Expressed Transcript (HAND) 2 in Benign and Neoplastic Endometrium (1096)
R Buell-Gutbrod, N Lee, A Montag, K Gwin
University of Chicago, Chicago, IL; University of Chicago, Chicago

11:30  The Clinical Significance of K-Ras Mutation in Endometrial “Surface Epithelial Changes” and Their Associated Endometrial Adenocarcinoma (1268)
J Xiong, M He, CL Jackson, V Breese, K Hansen, WD Lawrence
Women & Infants Hospital, Alpert Medical School of Brown University, Providence, RI; Rhode Island Hospital, Alpert Medical School of Brown University, Providence, RI

11:45  Predetermined Search Methods Can Increase the Yield in Counting Mitotic Figures in Uterine Leiomyosarcoma (ULMS) (1195)
HR Mahler, MR Lindberg, CM Quick
UAMS, Little Rock, AR

PROFFERED PAPERS
Tuesday, March 20, 2012
8:00 AM - 12:00 PM
CC 205-207
Section F - Cytopathology
Chaired by: Helen Wang and Mostafa Fraig

8:00  Cytomorphology, Cyst Fluid Analysis and Molecular Tests in Pancreatic Cystic Lesions: Review of 459 Cases (444)
B Ustun, A Alomari, GH Levy, D Chhieng, HR Aaslarian, U Siddiqui, G Cai
Yale University School of Medicine, New Haven, CT
PROFFERED PAPERS
Tuesday, March 20, 2012
8:00 AM - 12:00 PM
CC 223-224
Section G - Bone & Soft Tissue
Chaired by: Torsten Nielsen and Sarah Dry

8:00
ATF2 in Synovial Sarcoma (73)
L Su, TM Underhill, TO Nielsen
University of British Columbia, Vancouver, BC, Canada

8:15
The Value of Mutational Profiling of the Cytocentrifugation Supernatant Fluid from Fine Needle Aspiration of Pancreatic Solid Mass Lesions (351)
G Deftereos, SD Finkelstein, U Krishnamurti, Y Liu, JF Silverman, C Binkert, B Ujevich, A Mohanty
Allegheny General Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Inc., Pittsburgh, PA; The Western Pennsylvania Hospital, Pittsburgh, PA

8:30
Endoscopic Ultrasound-Guided Fine Needle Aspiration of Pancreatic Neuroendocrine Tumors: Is Accurate Grading Based on the 2010 ENTS/WHO Criteria Possible on Cytologic Specimens? (359)
JM Farrell, GE Kim, L Tabatabai
UCSF, San Francisco, CA

8:45
Subclassification of “Follicular Lesion of Undetermined Significance” in Thyroid Fine-Needle Aspirates (454)
HH Wu, A Inman, HM Cramer
Indiana University School of Medicine, Indianapolis, IN

9:00
Effective Application of the Cellent™ Automated Cell Block Processor with Immunocytochemistry and Molecular Biology in Oncopathology (438)
AJ Sauerman
UMCG, Groningen, Netherlands

9:15
EZH2, a Unique Marker of Malignancy in Effusion Cytology (376)
H Jiang, R Gupta, J Somma
SUNY Downstate Medical Center, Brooklyn, NY

9:30
RECESS, EXHIBITS, POSTER SESSION III

11:00
Osteoblastic Osteosarcoma: Cytomorphologic Characteristics and Differential Diagnosis on Fine Needle Aspiration (427)
S Sathiyamoorthy, SZ Ali
Johns Hopkins Hospital, Baltimore, MD

11:15
Utility of Brachyury in Distinction of Chordoma from Cytomorphologic Mimics in Fine Needle Aspiration and Core Needle Biopsy (379)
VY Jo, JL Hornick, X Qian
Brigham and Women’s Hospital & Harvard Medical School, Boston, MA

11:30
Validation of EGFR Testing on FNA Cytology and Core Biopsy Samples on the Qiagen Rotor-Gene System (387)
R Khode, D Larsen, S Walker, B Culbreath, S Parish, K Walker, L Savage-Rabie, R Beissner, A Rao
Scott & White Hospital, Temple, TX; Prophath Pathology, Dallas, TX

11:45
Evaluation of Atypical Urine Cytology Progression to Malignancy: An Eleven-Year Retrospective Review (406)
J Mius Ubago, EM Wojcik, GA Barkan
Loyola University Medical Center, Maywood, IL

Recurrence t(4;19) Translocation with CIC-DUX4 Fusion in a Novel Highly Malignant Small Round Cell Soft Tissue Sarcoma (29)
E-YK Choi, DG Thomas, JB McHugh, RM Patel, D Roulston, C Wienczewski, MB Amin, DR Lucas
University of Michigan, Ann Arbor, MI; William Beaumont Hospital, Royal Oak, MI

ALK Immunoeexpression and Gene Status in Rhabdomyosarcomas (84)
A Yoshida, S Wakai, T Ushiku, K Tsuda, A Makimoto, M Fukayama, K Furuta, H Tsuda, T Shibata
National Cancer Center, Tokyo, Japan; The University of Tokyo, Tokyo, Japan

Frequent PLAG1 Gene Rearrangements in Skin and Soft Tissue Myoepithelioma (ME) with Ductal Differentiation (19)
CR Antonescu, L Zhang, S Yun Shao, CD Fletcher
Memorial Sloan Kettering Cancer Center, New York, NY; Brigham & Women’s Hospital, Boston, MA

MUC4 Is a Sensitive and Specific Marker for Sclerosing Epithelioid Fibrosarcoma: Association with FUS Gene Rearrangement (36)
LA Doyle, W-L Wang, P Dal Cin, AJ Lazar, CDM Fletcher, JL Hornick
Brigham and Women’s Hospital & Harvard Medical School, Boston, MA; The University of Texas M.D. Anderson Cancer Center, Houston, TX

Solitary Fibrous Tumor: Is There a Molecular Relationship with Cellular Angiofibroma, Spindle Cell Lipoma and Mammary-Type Myofibroblastoma? (41)
KJ Fritchie, Y Sun, G Batiouchko, P Carver, WD Billings, BP Rubin, RR Tubbs, JR Goldblum
Mayo Clinic, Rochester, MN; Cleveland Clinic, Cleveland, OH

RECESS, EXHIBITS, POSTER SESSION III

11:15
Loss of Retinoblastoma Protein Expression in Spindle Cell/ Pleomorphic Lipomas and Cytogenetically Related Tumors: An Immunohistochemical Study with Diagnostic Implications (27)
BJ Chen, LA Doyle, CDM Fletcher, JL Hornick
Brigham and Women’s Hospital & Harvard Medical School, Boston, MA

FL Chang, AL Folpe, CY Inwards
Mayo Clinic, Rochester, MN

Soft Tissue Chordomas: An Analysis of 11 Cases (52)
SR Lauer, JM Gardner, A Sebastian, SW Weiss, MA Edgar
Emory University School of Medicine, Atlanta, GA

Angiofibroma of Soft Tissue: Clinicopathologic Characterization of a Distinctive Benign Fibrovascular Neoplasm in a Series of 37 Cases (58)
A Marino-Enriquez, CDM Fletcher
Brigham and Women’s Hospital and Harvard Medical School, Boston, MA
8:00 The Banff Fibrosis Trial: A Multicenter Trial of Visual Assessment of Interstitial Fibrosis in Kidney Biopsies and Its Relationship to Function (1667)
AB Farris, S Chan, J Climenhaga, C Bellamy, D Seron, R Colvin, M Mengel
Emory University, Atlanta; University of Alberta, Edmonton, Canada; Edinburgh University, Edinburgh, United Kingdom; University of Barcelona, Barcelona, Spain; MGH, Boston

8:15 C3 Glomerulonephritis: Clinicopathologic Findings, Complement Abnormalities, Glomerular Proteomic Profile, Treatment and Follow-Up (1697)
S Sethi, FC Fervenza, JA Vrana, SH Nasr, Y Zhang, RJH Smith
Mayo Clinic, Rochester, MN; Carver College of Medicine, Iowa City, IA

8:30 A Human Glomerular Transcriptional Profile of Endocapillary Proliferation Based on the Oxford Classification of IgA Nephropathy (1672)
JB Hodgkin, C Berthier, R John, E Grone, S Porubsky, H-J Grone, M Kretzler, H Reich
University of Michigan, Ann Arbor, MI; German Cancer Research Centre, Heidelberg, Germany; University of Toronto, Toronto, Canada

8:45 C4d Deposition without Recruitment of Inflammatory Cells Is Insufficient To Trigger Microcirculation Injury in Mouse Kidney Allografts (1662)
A Chow, P Blanco, L-F Zhu, B Sis
University of Alberta, Edmonton, AB, Canada

9:00 The Banff Initiative on Quality Assurance in Transplantation: Immunohistochemistry for BK Virus in the Kidney (1685)
PS Randhawa, S Chan, J Climenhaga, G Zeng, H Regele, R Colvin, M Mengel
University of Pittsburgh, Pittsburgh, PA; University of Vienna, Vienna, Austria; Harvard Medical School, Boston, MA; University of Alberta, Edmonton, Canada

9:15 Best Practice for C4d and BK Staining in Paraffin Sections from Human Renal Allografts: Results from the Banff Initiative for Quality Assurance in Transplantation (BIFQUIT) Trial (1681)
M Mengel, S Chan, J Climenhaga, H Regele, Y Kushner, R Colvin, P Randhawa
University of Alberta, Edmonton, Canada; University of Vienna, Vienna, Austria; MGH, Boston; University of Pittsburgh, Pittsburgh

9:30 RECESS, EXHIBITS, POSTER SESSION III

11:00 Beneficial Effects of Exogenous Thymosin β4 on Late Stage Tubulointerstitial Fibrosis (1716)
Y Zuo, B Chun, H-C Yang, Lj Ma, AB Fogo
Vanderbilt University, Nashville, TN

11:15 Significance of Isolated Intimal Arteritis (v1) in Kidney Transplants: A Multicenter Observational Study (1700)
B Sis, S Bagnasco, B Lategan, M Haas, P Randhawa, L Cornell, A Magil, M Kuperman, A Herzenberg, K Sasaki, I Gibson, E Kraus
University of Alberta, Edmonton, Canada

11:30 Renal Hypoplasia: A Review of Thirteen Cases of Two Distinct Types (1659)
SM Bonsib, R Fan, R Nair
Louisiana State University Health Sciences Center, Shreveport, LA; Riley Children’s Hospital, Indianapolis, IN; University of Iowa Hospitals and Clinics, Iowa City, IA

11:45 Collapsing Glomerulopathy in Advanced Diabetic Nephropathy (1693)
SP Salvatore, SV Seshan
Weill Cornell Medical College, New York City

POSTER SESSION III
Tuesday, March 20, 2012
9:30 AM - 12:00 PM
CC Exhibit Hall B3 & C

Poster numbers to the left of the abstract title correspond to the board number where the poster will be displayed. The number in parentheses after the title is the abstract number in the Abstract Book. These posters will be on display this morning only.

BONE & SOFT TISSUE

1 Extraskeletal Myxoid Chondrosarcoma Presenting as a Primary Bone Tumor: Four Cases with Molecular Confirmation (33)
EG Demicco, W-L Wang, JA Bridge, D Huang, JE Madewell, JM Meis
The University of Texas M. D. Anderson Cancer Center, Houston, TX; University of Nebraska Medical Center, Omaha, NE

2 The Benign Notochordal Cell Tumor and Eccchordosis Physaliphora Lack the Complex Genomic and Genetic Alterations Commonly Found in the Conventional Chordomas (54)
YD Lee, LP Le, V Deshpande, AJ Iafrates, AE Rosenberg, GP Nielsen
Massachusetts General Hospital, Boston, MA; University of Miami, Miami

3 Chordoma Arising in Benign Notochordal Cell Tumor: A Detailed Radiological, Gross and Microscopic Description of Three Cases Involving the Lumbar Spine (46)
SEA Ishak, GP Nielsen, AE Rosenberg
Cairo University, Cairo, Egypt; Massachusetts General Hospital, Boston, MA; University of Miami, Miami, FL

4 MicroRNA Profiles in Osteosarcoma (83)
KY Won, YW Kim, Y-K Park
Kyung Hee University Hospital at Gangdong, College of Medicine, Kyung Hee University, Seoul, Republic of Korea; Kyung Hee Medical Center, College of Medicine, Kyung Hee University, Seoul, Republic of Korea

5 Osteosarcoma of the Hands and Feet: A Clinico-Pathologic Distinct Subgroup of OS? (18)
JK Anninga, P Picci, HM Kroon, D Vanel, PCW Hogendoorn
Leiden University Medical Center, Leiden, Netherlands; Istituto Ortopedico Rizzoli, Bologna, Italy

6 Gene Deletion Underlies Loss of P16 Expression in Osteosarcoma Tumors with Poor Response to Neoadjuvant Chemotherapy (22)
D Borys, R Canner, J Gregg, B Hoch, R Davis, A Horvai
University of California Davis, Sacramento; UC Davis, Sacramento; University of Washington, Seattle; UCSF, San Francisco
Evaluation of the Mitogen-Activated Protein Kinase Pathway in Osteosarcoma (61)
KY Na, YW Kim, Y-K Park
Kyung Hee University Hospital, Seoul, Republic of Korea

Molecular Distinction of Chondrosarcoma from Chondroblastic Osteosarcoma through IDH12 Mutations (50)
DA Kerr, V Deshpande, DR Borger, GP Nielsen
Massachusetts General Hospital, Boston, MA

Interobserver Reliability in the Histopathological Diagnosis of Peripheral Cartilaginous Tumors in Patients with Multiple Osteochondromas: How Can We Improve Diagnostic Quality? (32)
CE de Andrea, HM Kroon, R Wolterbeek, S Romeo, AE Rosenberg, BR DeYoung, B Liegl-Atzwanger, CY Inwards, E Hauben, EF McCarthy, M Idoate, NA Athanasou, KB Jones, PCW Hogendoorn, JVMG Bovee
Leiden University Medical Center, Leiden, Netherlands; Treviso Regional Hospital, Treviso, Italy; Massachusetts General Hospital, Boston; University of Iowa Carver College of Medicine, Iowa City; Medical University of Graz, Graz, Austria; Mayo Clinic, Rochester; University Hospitals Leuven, Leuven, Belgium; Johns Hopkins Hospital and Johns Hopkins University School of Medicine, Baltimore; University of Navarra, Pamplona, Spain; University of Oxford, Nuffield Orthopaedic Centre, Oxford, United Kingdom; University of Utah, Salt Lake City

Network of Thick Fibrils in Normal Fetal and Chondrodysplastic Articular Cartilage (45)
WS Hwang
KK Women’s and Children’s Hospital, Singapore

Bone and Soft Tissue Pathology Discovered in Bone Bank Donors: An Analysis of 109 Lesions (42)
SS Giobbe, BL Hoch
University of Washington, Seattle, WA

Histidine Decarboxylase Expression by Immature Myeloid Cells May Affect Peak Bone Density in Mice (37)
J Dunlap, E Larson, J Hebert, R Klein, T Morgan
OHSU, Portland

Incidence of an Anatomically Separate Carcinoma of the Breast in Patients Diagnosed with a Papillary Lesion on Breast Core Biopsy (113)
M Chung, N Shapiro, T Koenigsberg, S Fineberg
Montefiore Medical Center, Bronx, NY

Surgical Excision May Not Be Necessary for Benign Papillomas on Core Biopsy: A Large Retrospective Study in an Academic Women Center (195)
X Li, M Desouki, D Dabbs, S Shyu, G Carter, L Wang, C Zhao
Magee-Womens Hospital, University of Pittsburgh Medical Center, Pittsburgh, PA

Pathologic Upgrade (PU) Rates on Subsequent Excisional Biopsy (EXBX) When Lobular Carcinoma In Situ (LCIS) Is Found in a Needle Core Biopsy (NCB) with Emphasis on Radiologic Correlation (121)
TM D’Alfonso, K Wang, Y-L Chiu, SJ Shin
Weill Cornell Medical College, New York, NY; Cornell University, Ithaca, NY

“Incidental” Intraductal Papillomas: Is Excision Necessary? (291)
PS Weisnaj, BJ Sutton, KP Siziopikou, J Franz, SM Rohan, ME Sullivan
Northwestern University, Chicago, IL

Breast Papillary Lesion on Needle Core Biopsy: Is Surgical Excision Necessary? (203)
L Lopez, K Woolf, D Hicks, X Wang
University of Rochester, Rochester

Evaluation of 2358 Breast Needle Biopsy Cases: Patients with Pure Atypical Flat Lesions Could Be Spared Surgical Excision (300)
R Yamaguchi, M Tanaka, J Akiba, Y Naito, H Yano
Kurume University School of Medicine, Kurume, Japan; Social Insurance Kurume Daiichi Hospital, Kurume, Japan

Histological Evaluation of the Papillary Lesions of the Breast from Needle Biopsy to the Excised Specimen: A Single Institutional Experience (158)
SM Gilani, RS Tashijian, PJ Kowalski
St. John Hospital & Medical Center, Detroit, MI

Mitotic Figure Counts Are Significantly Higher in Breast Cancer Tumorectomy Specimn Than to Needle Biopsies (259)
C Schaper, C Rochat, A Nobile, E Obermann, H-A Lehr
Breast Center Suddaben, Freiburg, Germany; CHUV, Lausanne, Switzerland; University Hospital, Basel, Switzerland

High Grade Lobular Carcinoma In Situ in Breast Excision: Potential for Misdiagnosis as Solid Type DCIS or Classical LCIS (161)
F Habib, S Syriac, D Wang, S Liu, R Karabakhstian, D Tan, T Khoury
Roswell Park Cancer Institute, Buffalo, NY; University of Kentucky, Lexington, KY; MD Anderson Cancer Center, Houston, TX

Endoglin: An Adjunct Diagnostic Marker To Differentiate between Benign and Atypical Vascular Lesions/Proliferations Arising in the Breast Post-Radiation therapy (133)
W Dubinski, D Ghazarian
University Health Network, Toronto, Canada

Dual PTEN and RB Loss Predict Invasive Recurrence of DCIS (200)
RL Lipinski, RW O’Neall, ES Knudsen, GF Schwartz, AK Witkiewicz
Thomas Jefferson University, Philadelphia, PA

Fascin Expression Associated with Triple Negative Breast Cancers and Unfavorable Prognosis in African-American Women (142)
AK Esnakula, LJ Ricks-Santi, W Frederick, TJ Naab
Howard University Hospital, Washington, DC; Howard University Cancer Center, Washington, DC

CD105 (Endoglin) Expression in Tumor Cells Associated with HER2 Positive Breast Cancers and Decreased Disease-Free Survival in African American Women (218)
TJ Naab, LJ Ricks-Santi, YM Kannan, AK Esnakula
Howard University Hospital, Washington, DC; Howard University Cancer Center, Washington, DC
27 Predictors of Response to Trastuzumab Containing Neoadjuvant Chemotherapy in HER2 Positive Breast Cancers (194)
X Li, A Kanbour-Shakir, D Dabbs, R Bhargava
University of Pittsburgh Medical Center, Pittsburgh, PA

28 HER2 Overexpression Is a Major Risk Factor for Recurrence in pT1a-b, N0 Breast Cancer: A French Regional Population-Based Study of 671 Patients (98)
CRLCC Val d’Aurelle, Montpellier, Herault, France; Hôpital Gui de Chauliac, Montpellier, Herault, France; Groupe Hospitalo-Universitaire, Nimes, Gard, France; Centre de Pathologie, Montpellier, Herault, France; CACP Les Tonnelles, Montpellier, Herault, France

29 Morphological Characteristics of HER2 Over-Expressing and Basal-Like Breast Cancers and the Association between Lymphocytic Tumor Infiltrate and Prognosis (93)
AL Bane, S Parpia, G Pond, V Kumar, G Gohla, MN Levine, T Whelan
McMaster University, Hamilton, ON, Canada

30 Progesterone Receptor and HER2 Status Are Significant Prognostic Factors in Advanced Breast Cancer (245)
Z Ren, O Hameed, Y Li, GP Siegal, S Wei
University of Alabama at Birmingham, Birmingham, AL

31 HER2 Heterogeneity by FISH in Breast Cancers and Matched Lymph Node Metastases: A Pilot Study (274)
CJ Suarez, SM Dintzis, RA Schmidt, KH Allison
University of Washington, Seattle

32 DCIS Heterogeneity: An Integrated RNA-miRNA Analysis (215)
JC Moreno, R Nair, NA Miller, BJ Youngson, V Iakovlev, D McCready, SJ Done
Campbell Family Institute for Breast Cancer Research, Toronto, ON, Canada; University Health Network, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada; St. Michael’s Hospital, Toronto, ON, Canada

33 Molecular Difference between Pure Invasive Ductal Carcinoma (IDC) and the IDC Components of the Tumors with Co-Existing Ductal Carcinoma In Situ (125)
J Da, J Wang, H Chen, B Wei, DG Hicks, P Tang
University of Rochester Medical Center, Rochester, NY; RTI Health Solution, Research Triangle Park, NC

34 ZNF217 and FGFR1 Amplification in the Progression of In Situ to Invasive Breast Carcinoma (171)
M Jang, EJ Kim, Y Choi, HE Lee, ST Park
Seoul National University College of Medicine, Seoul, Republic of Korea; Seoul National University Hospital, Seoul, Republic of Korea; Seoul National University Bundang Hospital, Seongnam, Republic of Korea

35 Molecular Difference between the Components of the Ductal Carcinoma In Situ and the Invasive Ductal Carcinoma (IDC), and between the Components of the IDC and the Metastasis of the Same Breast Cancer Patients (290)
B Wei, J Wang, J Da, H Chen, DG Hicks, P Tang
University of Rochester Medical Center, Rochester, NY; RTI Health Solution, Research Triangle Park, NC

36 Meta-Analysis of Gene Expression Profiling Datasets To Uncover Biological Pathways and Candidate Biomarkers Associated with Progression in DCIS (250)
JN Robens, SJ Schnitt, AH Beck
Beth Israel Deaconess Medical Center, Boston

37 Comparison of FISH and SISH Methods for HER2 Testing in Breast Carcinoma: A Validation Study Emphasizing Automated Methods (105)
MC Chang, M Rogers, G Kuruzar, M Reid, M Mendes, P Plotnick, A Azad
Mount Sinai Hospital, Toronto, ON, Canada; Univ of Toronto, Toronto, ON, Canada

38 CYTOPATHOLOGY

I Eltoum, J Roberson
University of Alabama at Birmingham, Birmingham, AL; University of Alabama at Birmingham, Birmingham

40 Value of p16/Ki67 Dual Immunostaining Evaluation of Cervical Cytology Specimen (424)
Hospital Clinic - CRESIB (Centre de Recerca en Salut Internacional de Barcelona), Barcelona, Spain; Hospital Clinic - Institut d’Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS), Barcelona, Spain

41 Hybrid Capture 2 Test Results after an Initial Equivocal RLU/CO Value Are Dependent on Age (355)
CT Elkins, CE de Vries, JA Stephens, AA Suarez
The Ohio State University, Columbus, OH

42 Comparison of HR HPV Positive Rates Using the HC2 Versus the Cervista Test in Women 30 Years of Age or Older with NILM Cytology Results and Clinical Follow-Up (354)
C Duckworth, M Hoskins, KZ Hanley
Emory University, Atlanta, GA

43 Utility of ProExC and IMP3 Immunocytochemical Staining of Atypical Glandular Cells of Undetermined Significance (AGUS) in Liquid-Based Cervical Cytology (392)
RR Lastra, JJ Ou, ME Reilly, WD Lawrence, JS Brooks, JE Barroeta
Pennsylvania Hospital of the University of Pennsylvania Health System, Philadelphia, PA; Women & Infants Hospital of Rhode Island, Providence, RI

44 Implementation of BD FocalPoint GS in Clinical Practice: Impact on Human Papillomavirus (HPV) Rates and Biopsy Diagnoses (401)
TN Mettler, A Samad, S Amirouche, G Rahimaghaie, J Holler, SE Pambuccian
University of Minnesota Medical Center, Fairview, Minneapolis, MN

45 Histologic Follow-Up Results in Patients with Pap Test Findings of Endometrial Cells: Results from a Large Academic Women Hospital Laboratory (394)
Z Li, H Yang, B Weng, C Zhao
Magee-Womens Hospital of UPMC, Pittsburgh, PA; Conemaugh Valley Memorial Hospital, Johnstown, PA

46 Immunocytochemistry with p16INK4a (p16) and Ki-67 as Adjuncts to the Pap Test (381)
ET Jones, LJ Fowler, EJ Wilkinson
University of Florida, Gainesville, FL
SIRT-1 Over-Expression and Its Association with p16INK4a in Cervical Intraepithelial Lesions (449)  
Wang, F. Fub eos, S. Zhang  
Louisiana State University Health Science Center, Shreveport, LA  

HSIL Is as Elusive on ThinPrep Paps as on Conventional Paps (339)  
SM Brant, M. Guo, MM Bennett, B. Vakil, R. S. Hoda  
New York Presbyterian Hospital, Weill Cornell Medical College, New York, NY  

Endometrial Wash Cytology Revisited Utilizing 101 Cases with Subsequent Endometrial Biopsies among Postmenopausal and Perimenopausal Women with Vaginal Bleeding (452)  
V. Wilkes, J. Tsang, J. Pathoplampil, M. Benedicto, W. L. Thelmo, C. D. Del Rosario  
Ross Medical School, Roseau, Dominica; Wyckoff Heights Medical Center, Brooklyn, NY  

Cervical Cytology and High Risk HPV Genotype Distribution in Blacks (456)  
X. Yang, J. Somma, R. Gupta, C. Ragin, F. Lachbawen  
SUNY Downstate Medical Center, Brooklyn; Fox Chase Cancer Center, Philadelphia  

Atypical Squamous Cells of Undetermined Significance (ASC-US) Associated with Atypical Repair in Liquid-Based (SurePath) Pap Tests: Prevalence of Human Papillomavirus Infections and Follow-Up Biopsy Diagnoses (409)  
AC Nelson, A. Samad, SA Amirouche, JL Holler, SE Pambuccian  
University of Minnesota Medical Center, Fairview, Minneapolis, MN  

Validation of Cervista HPV16/18 in SurePath Pap Specimens Using a PCR-Based HPV Genotyping Assay (386)  
A. Khanna, S. Patel, J. Fong, L. Payne, W. Zhang, G. Staerkel, M. Guo  
MD Anderson Cancer Center, Houston, TX  

Frequency and Etiology of Unsatisfactory Cervical Cytology by ThinPrep® Method in a Tertiary Care Urban Setting – A Snapshot of Brief Duration (382)  
Detroit Medical Center and Wayne State University School of Medicine, Detroit, MI  

Should Cervical Cancer Screening Begin at Age 21? A Quantitative Analysis (425)  
D. Saveda-Vafa, Y. Huang, X. Zhang, M. Carrozza, V. Manucha  
Temple University Hospital, Philadelphia, PA  

Grading and Staging of Pancreatic Endocrine Tumor: EUS-FNA-Based Compared to Surgical Pathology (405)  
F. Mukhtar, SH Magee, S. Li, I. Eltoum  
University of Alabama at Birmingham, Birmingham; University of Vanderbilt, Nashville  

Diagnostic Challenges of Pancreatic Cysts: A Proposal for a Multimodality Approach (414)  
IV Oliva, C. Ky, N. Salami, NA Moatamed, SK Apple  
UCLA, David Geffen School of Medicine, Los Angeles, CA  

Pancreatic Cyst Fluid Cytology and Carcinoembryonic Antigen (CEA) Level Obtained by Endoscopic Ultrasound Guided- Fine Needle Aspiration: Which Is Better at Identifying High Grade Dysplasia/Invasion in Intraductal Papillary Mucinous Neoplasms? (373)  
J. House, J. Klapman, M. Leon, M. Malafa, J. Weber, BA Centeno  
University of South Florida, Tampa, FL; Moffitt Cancer Center, Tampa, FL  

Endoscopic Ultrasound-Guided Fine Needle Aspiration (EUS-FNA) Biopsy of Solid Pancreatic Lesions: Review of 681 Cases (343)  
Yale University School of Medicine, New Haven, CT  

Detection of Chromosomal Abnormalities by Fluorescence In Situ Hybridization on Ultrasound Guided Fine-Needle Aspiration Samples from Pancreas (458)  
Y. Zhang, M. Garcia-Butrago, P. Ganjeg, Y-S Fan, A. Ribeiro  
University of Miami, Miller School of Medicine-Jackson Memorial Hospital, Miami, FL; University of Miami, Miller School of Medicine-UMHC/Sylvester, Miami, FL  

Cytology and Pitfalls of EUS Sampling of Ectopic Splenic Tissue (402)  
J. Mitros, R. Askeland, C. Jensen  
University of Iowa, Iowa City, IA  

Cell Block Cellularity Correlation with Clinico-Pathologic Variables in Pancreatic Neoplasms (407)  
S. Navina, AM. Krainskas  
University of Pittsburgh Medical Center, Pittsburgh, PA  

Prospective Analysis of Atypical Epithelial Cells as a High Risk Cytological Feature for Malignancy in Pancreatic Cysts (417)  
MB, Pitman, KA. Yaeger, WR. Brugge, M. Mino-Kenudson  
Massachusetts General Hospital, Boston, MA  

Pancreatic Fine-Needle Aspiration Cytology in Patients < 35-Years of Age: A Retrospective Review of 175 Cases Spanning a 16-Year Period (421)  
M. Redelman, HH, Wu, HM. Cramer  
Indiana University School of Medicine, Indianapolis, IN  

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University of Maryland Medical Center, Baltimore, MD

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GD Smith, BT Collins, EV Gopez, BE Chadwick
University of Utah, Salt Lake City, UT; ARUP Laboratories, Salt Lake City, UT; Washington University, Saint Louis, MO

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University of Michigan Medical School, Ann Arbor, MI

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Hartford Hospital/CLP, Hartford, CT

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Thomas Jefferson University Hospital, Philadelphia, PA

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David Geffen School of Medicine at UCLA, Los Angeles, CA

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Mayo Clinic Arizona, Scottsdale, AZ; Cleveland Clinic, Cleveland, OH; New York University, New York, NY

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K Ferraro, A Kanaracus, EM Kurian
Memorial Medical Center, University of Massachusetts, Worcester, MA

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University of Miami, Miller School of Medicine-Jackson Memorial Hospital, Miami, FL

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The Johns Hopkins Hospital, Baltimore, MD

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University Hospital of Wales, Cardiff, United Kingdom; Royal Gwent Hospital, Newport, United Kingdom

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JA Ferguson, P Chamberlain, HH Wu
Indiana University School of Medicine, Indianapolis, IN

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A Ly, J Ono, K Hughes, MB Pitman, R Balassanian
Brigham and Women’s Hospital, Boston, MA; Massachusetts General Hospital, Boston, MA; University of California, San Francisco, CA

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MD Anderson Cancer Center, Houston, TX

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Huntsman Cancer Hospital, University of Utah, Salt Lake City, UT

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Beth Israel Medical Center, New York, NY

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TB Marburger, JM Gardner, VG Prieto, SD Billings
Cleveland Clinic, Cleveland, OH; Emory University Hospital, Atlanta, GA; MD Anderson Cancer Center, Houston, TX
87 Epithelioid Malignant Schwannoma: A Clinicopathological Evaluation of 13 Cases (545)
RP Shanesmith, JC Cardoso, C Fisher, E Calonje
Tulane Medical Center, New Orleans, LA; St. John’s Institute of Dermatology, St. Thomas’ Hospital, London, England, United Kingdom; Royal Marsden Hospital, London, England, United Kingdom

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Georgia Health Sciences University, Augusta, GA

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K Miller, JR Goodlad, T Brenn
Southmead Hospital, North Bristol NHS Trust, Bristol, United Kingdom; Western General Hospital and The University of Edinburgh, Edinburgh, United Kingdom

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Boston University School of Medicine, Boston, MA

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A Gopinath, HS Kwak, PE North, SS D radas
Hartford Hospital, Hartford, CT; Knott Street Dermatology, Portland, OR; Medical College of Wisconsin, Milwaukee, WI; University of Connecticut School of Medicine, Farmington, CT

94 Cutaneous Clear Cell Sarcoma: A Study of 3 Additional Cases with Molecular Confirmation (490)
G Falconieri, B Lazar, CE Bacchi
General University Hospital, Udine, Italy; University of Ljubljana School of Medicine, Ljubljana, Slovenia; Consultoria em Patologia, Botucatu, Sao Paulo, Brazil

95 Expression of CD10 and MMP-11 in the Differential Diagnosis of Dermatofibroma Variants and Dermatofibrosarcoma Protuberans (518)
C Ma, S Krishnamurthy, LP Dehner, D Lu
Washington University in St. Louis, St. Louis, MO

96 The Utility of Nestin and Sox2 Immunostains in Distinguishing Desmoplastic Melanoma and Dermatofibrosarcoma Protuberans from Excision Scar (473)
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Washington University School of Medicine, St. Louis

97 Connective Tissue Nevus: A Rare Lesion Analyzed in a Series of 25 Cases (485)
S de Feraudy, CDM Fletcher
Brigham and Women’s Hospital and Harvard Medical School, Boston, MA

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Washington University School of Medicine, St Louis

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MJ Sagrantsky, AC Deng, CM Magro
Wake Forest University School of Medicine, Winston-Salem, NC; University of Massachusetts School of Medicine, Worcester, MA; Weil Medical College of Cornell University, New York, NY

100 Cutaneous Myeloid Dendritic Cell Malignancies (556)
S Verma, CS Friedman, W Tam, CM Magro
The University of Texas M.D. Anderson Cancer Center, Houston, TX; NYP-Weill Cornell Medical College, New York, NY

101 RAS Mutation Analysis of Transformed Mycosis Fungoides Identifies a KRAS G13D Mutation (480)
BM Connolly, C Hedvat, PL Myskowski, SM Horwitz, MP Pulitzer
Memorial Sloan Kettering Cancer Center, New York

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Hospital Universitario Marqués de Valdecilla, Santander, Spain

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University of Florida College of Medicine, Gainesville, FL

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SM Amin, F Fan, O Tawfik
University of Kansas Medical Center, Kansas City, KS

107 Correlation of Immunohistochemistry for HER2 with Bright Field Dual ISH (DDISH) in Extramammary Paget Disease (483)
D Cummings, RR Tubbs, JJ Rowe, C Lanigan, SD Billings
Cleveland Clinic, Cleveland, OH

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Massachusetts General Hospital, Boston, MA

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University of Texas MD Anderson Cancer Center, Houston, TX
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Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA; Massachusetts General Hospital and Harvard Medical School, Boston, MA; Morgan State University, Baltimore, MD; Mayo Clinic, Rochester, MN

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JY Tse, LP Le, A Nguyen, G Wang, MP Hoang
Massachusetts General Hospital, Boston, MA

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University of Massachusetts Medical School, Worcester, MA

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A Haugg, D Rennspies, A zur Hausen, E-JM Speel, G Cathomas, J Becker, D Schrama
Maastricht University Medical Center, Maastricht, Netherlands; Kantonsspital Liestal, Liestal, Switzerland; Medical University Hospital Graz, Graz, Austria

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A Righi, S Ascoli, A Pisacane, F Picciotto, V Caliendo, G Macripo, V Eusebi, G Bassolati
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M Sidiropoulos, W Hanna, SJ Raphael, K Jakate, Z Ghorab
University of Toronto, Toronto, ON, Canada; Sunnybrook Health Sciences Centre, Toronto, ON, Canada

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AR Sangoi, D Cassarino
El Camino Hospital, Mountain View, CA; Southern California Permanente Medical Group, Los Angeles, CA

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S Carnicero, MC Gonzalez-Vela, MA Piris
Hospital Universitario Marques de Valdecilla, Santander, Spain

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JG Vincent, EJ Lipson, H Xu, JM Taube
Johns Hopkins Hospital, Baltimore, MD

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Hospital Clinic, Barcelona, Spain

121 Clinicopathologic Features of Cutaneous Syncytial Myoepithelioma (507)
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Brigham and Women’s Hospital & Harvard Medical School, Boston, MA

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JA Plaza, A Feldman, C Magro
Medical College of Wisconsin, Milwaukee, WI; Mayo Clinic, Rochester, MN; Weill Medical College of Cornell University, New York, NY

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Northwestern University, Chicago, IL

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N Aardsma, R Emmadi, E Wiley
University of Illinois at Chicago, Chicago, IL

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G Hulman
Nottingham University Hospitals, Nottingham, Nottinghamshire, United Kingdom

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Beth Israel Deaconess Medical Center, Boston, MA; Ikona Inc., Westwood, MA

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Salmaniya Medical Complex, Manama, Bahrain; All India Institute of Medical Sciences, New Delhi, India; Nile College, Khartoum, Sudan; Arabian Gulf University, Manama, Bahrain

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University of Washington, Seattle, WA; University of Colorado, Denver; Cleveland Clinic, Cleveland, OH

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University of Arizona, Tucson, AZ
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146 Development of a TFEB Break-Apart Fluorescence In Situ Hybridization (FISH) Assay for Diagnosis of the t(6;11) (p21;q12) Renal Cell Carcinomas Harboring the Alpha-TFEB Gene Fusion in Archival Material (788)

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148 The Value of Napsin A in the Work-Up of Renal Neoplasms (1014)

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151 Expression of Novel Markers Human Kidney Injury Molecule-1 (Hkim-1), S100A1 and Napsin A in the Differential Diagnosis of Renal Cell Carcinomas (RCC) with Clear and Papillary Features (790)

152 Expression of Novel Markers Human Kidney Injury Molecule-1 (Hkim-1), S100A1 and Napsin A in the Differential Diagnosis of Renal Cell Carcinomas (RCC) with Clear and Papillary Features (790)

GENITOURINARY

Tyrosine Kinase Inhibitor-Induced Vasculopathy in Clear Cell Renal Cell Carcinoma as an Anti-Tumor Mechanism (1034)

T Tsuzuki, N Sassa, T Morikawa, A Fukatsu, Y Yoshino, R Hattori, R Shiroki, M Gotoh

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Clinicopathologic Characteristics of Renal Cell Carcinoma in Patients 45 Years of Age and Younger (811)

R Carr, A Van Dyke, G Cai, K Haines, AJ Adeniran

Yale University School of Medicine, New Haven, CT

ALK Alterations in Adult Renal Cell Carcinoma: Frequency, Clinicopathologic Features and Outcome in a Large Series of Consecutively Treated Patients (1020)

WR Sukov, JC Hodge, CM Lohse, MK Akre, BC Leibovich, H Thompson, JC Cheville

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Development of a TFEB Break-Apart Fluorescence In Situ Hybridization (FISH) Assay for Diagnosis of the t(6;11) (p21;q12) Renal Cell Carcinomas Harboring the Alpha-TFEB Gene Fusion in Archival Material (788)

P Argani, R Yonescu, GJ Netto, PB Ilie, CA Griffin

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The Value of Napsin A in the Work-Up of Renal Neoplasms (1014)

AR Smith, S Patel, JF Silverman

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Unclassified Renal Cell Carcinoma and Invasive High Grade Urothelial Carcinoma: Is the Distinction Possible by Immunohistochemistry and Clinically Important? (1053)

KE Watts, JP Reynold, P Carver, M Zhou

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Expression of Novel Markers Human Kidney Injury Molecule-1 (Hkim-1), S100A1 and Napsin A in the Differential Diagnosis of Renal Cell Carcinomas (RCC) with Clear and Papillary Features (790)

M Aron, M Amin, P Zhang, M DePeralta-Venturina, SK Mohanty, S Wang, MB Amin

 Cedars-Sinai Medical Center, Los Angeles, CA; William Beaumont Hospital, Detroit
153 Immunohistochemical Profile of Clear Cell and Related Renal Cell Cancers, with Emphasis on CK7 and Carbonic Anhydrase-IX (CA-IX) Staining (850)
SW Fine, Y Chen, HA Al-Ahmadie, A Gopalan, VE Reuter, SK Tickoo
Memorial Sloan-Kettering Cancer Center, New York, NY

154 Current Immunomarkers Are Inadequate for Accurate Classification of Renal Epithelial Tumors (888)
C Himmetoglu Ussakli, L True
University of Washington, Seattle, WA

155 How Immunohistochemistry Can Help To Identify Renal Tumors Associated with SDHB Syndrome (1046)
BA Walter, VA Valera, K Pacak, M Linehan, MJ Merino
NCI, NIH, Bethesda

156 PAX8 Mouse Monoclonal Antibody: A Comprehensive and Comparative Study on Normal and Neoplastic Tissues (1022)
D Tacha, D Zhou, R Bremer, L Cheng
Biocare Medical, Concord, CA; Indiana School of Medicine, Indianapolis, IN

157 The Relationship between EZH2 Expression and Renal Cell Carcinoma (932)
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Keimyung University School of Medicine, Daegu, Korea

158 Molecular Classification Helps Discriminate between Oncocytomas and Chromophobe Renal Carcinomas Using Meta-Analysis of Gene Expression Microarrays (1039)
VA Valera Romero, BA Walter Rodriguez, MJ Merino
National Cancer Institute, National Institutes of Health, Bethesda, MD

159 Worrisome Histologic Features in Benign Renal Oncocytoma: Immunohistochemical and Cytogenetic Analysis (810)
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University of Verona, Verona, Italy; University of Calgary, Calgary, AB, Canada; University of Otago, Wellington, New Zealand; Indiana University, Indianapolis, IN

160 Chromophobe Renal Cell Carcinoma: Is Grading Necessary? (823)
JC Cheville, WR Sukov, CM Lohse, HR Thompson, BC Leibovich
Mayo Clinic, Rochester, MN

161 Pigmented Microcystic Chromophobe Renal Cell Carcinoma: A Peculiar Morphological Variant. Clinicopathologic, Immunohistochemical, and Molecular Cytogenetic Study of 33 Cases (984)
FJ Queipo, A Panizo, A Tienza, I Rodriguez, JJ Sola, J Pardo
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162 Expression of the Na+/K⁺-Transporting ATPase Gamma Subunit FXYD2 in Chromophobe Renal Cell Carcinoma and Renal Oncocytoma (859)
JP Gaut, DL Crimmins, CM Lockwood, JJ McQuillan, JH Ladenson
Washington University School of Medicine, St. Louis, MO

163 “Hybrid Oncocytic/Chromophoe Renal Cell Tumours” Do Not Display Genomic Features of Chromophobe Carcinomas (1045)
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Hôpital Cochin, Paris, France; Hôpital Edouard Herriot, Lyon, France; Curie Institute, Paris, France; Hôpital Foch, Suresnes, France; Hôpital Saint-Joseph, Paris, France

164 Cytogenomic Analysis Is a Useful Adjunct Diagnostic Tool for Difficult Renal Oncocytic Tumors (980)
AL Peterson, A Ayala, JY Ro, SS Shen, LD Truong, EA Monzon
The Methodist Hospital, Houston, TX

165 Open and Robotic/Laparoscopic Partial Nephrectomy: A Large Single-Institutional Experience with Clinicopathologic Analysis and Follow-Up (936)
L Liu, JG Pattaras, AO Osunkoya
Emory University School of Medicine, Atlanta

166 All New Antiangiogenic Therapies Can Induce “Preeclampsia-Like Syndrome” (991)
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CHU Pontchaillou, Rennes Cedex 9, France; Institut Génétique et Développement de Rennes, Rennes, France

167 Sarcomatoid Renal Cell Carcinoma Shows a Distinct Transcriptomic Profile That Is Not Associated with Epithelial to Mesenchymal Transition Markers (1013)
K Sirer, T Majewski, K Want, J McDonald, K Baggery, P Tamboli, B Czerniak, K Alldape
University of Texas MD Anderson Cancer Center, Houston, TX

168 Immunohistochemical Profile of Stem/Progenitor Cell Marker C133 in Variants of Renal Tumors (1006)
JD Schwartz, MB Amin, PL Zhang
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169 GYNECOLOGIC & OBSTETRICS

170 Carbonic Anhydrase Type IX Expression in Lobular Endocervical Glandular Hyperplasia and Related Adenocarcinoma of the Uterine Cervix (1208)
T Mikami, S Mnamaguchi, N Teramoto, M Nagura, H Haga, I Konishi
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171 Immunohistochemical Profile of Gastric Type Endocervical Adenocarcinoma, Including HER2/Neu Status (1172)
Y Karamurzin, V Parkash, T Kiyokawa, RA Soslow, KJ Park
Memorial Sloan-Kettering Cancer Center, New York, NY; Yale University School of Medicine, New Haven, CT; Chiba University School of Medicine, Chiba, Japan

172 Stromal Signatures in Endometrioid Endometrial Carcinomas (1126)
I Expinosa, E D’Angelo, A Mozos, B Canet, L Catasus, J Prat
Hospital de la Santa Creu i Sant Pau. Institute of Biomedical Research (IIB Sant Pau). Autonomous University of Barcelona, Barcelona, Spain
172 MELF Pattern of Myoinvasion in Endometrioid Endometrial Adenocarcinoma Is Associated with Low-Grade Tumors, Deep Myometrial Invasion and a Low Proliferative Index (1196) JI Malowany, A Parsoei, MQ Bernardini, A Fyles, M Rouzbahman Toronto General Hospital, Toronto, Canada; University of Toronto, Toronto, Canada

173 Histologic Patterns of Myometrial Invasion in FIGO Grade 2 Endometrioid Endometrial Adenocarcinoma (1187) DI Lin, WM Winham, PJ Stone, CM Quick, MR Nucci Brigham & Women’s Hospital, Boston, MA; UAMS, Little Rock, AR

174 Architectural vs. Nuclear Atypia Defined FIGO Grade 2 Endometrial Endometrioid Adenocarcinoma (EEC): A Clinicopathologic Comparison of 154 Cases (1262) W Winham, D Lin, P Stone, M Nucci, M Quick UAMS, Little Rock, AR; Brigham and Women’s Hospital, Boston, MA

175 Prognostic Significance of Primary Tumour Factors in Stage III High Grade Endometrial Adenocarcinoma (1176) H Kaur, L Eiriksson, R Saad, M Khalifa, V Dube, Z Ghorab, A Covens, L Barbera, N Ismiil University of Toronto, Toronto, Canada

176 Tumor Size as a Prognostic Factor in Uterine Serous Carcinoma: A Large Multi-Institutional Study (1090) S Bandyopadhyay, KK Van de Vijver, E Oliva, MR Nucci, D Shi, F Qureshi, K Hayek, B Alosn, Z Feng, H Jarrelli, D Schultz, R Ali-Fehmi Wayne State University, Detroit, MI; Massachusetts General Hospital, Boston, MA; Henry Ford Health System, Detroit; Brigham And Women’s Hospital, Boston, MA

177 Endometrial Clear Cell Carcinomas with and without Aberrant p53 Expression: A Study of 16 Cases (1115) D DeLair, RA Soslow Memorial Sloan-Kettering Cancer Center, New York, NY

178 Mismatch Repair Protein Expression in Clear Cell Carcinoma of the Endometrium: Frequency and Clinicopathologic Correlation of 41 Cases (1254) KK Van de Vijver, L Liu, AJ Iafrate, E Oliva Massachusetts General Hospital, Boston, MA

179 Loss of BAF250a (ARID1A) Expression in Endometrial Clear Cell Carcinoma: Assessment of Frequency and Clinicopathologic Implications (1128) O Fadare, IL Renshaw, SX Liang Vanderbilt University, Nashville; North Shore-LIJ Health System, New York

180 Adequacy of Lymphadenectomy in Endometrial Cancer: A Threshold Change Is Needed (1083) G Aggarwal, A Malpica, ED Euscher, P Ramalingam Georgia Health Sciences University, Augusta; UT MD Anderson Cancer Center, Houston

181 Frozen Section Does Not Reliably Predict the Likelihood of Lymph Node Involvement in Low Risk Endometrial Adenocarcinoma (1119) BD Djordjevic, S El Hallani, ED Euscher, AA Roma, EJ Moschiano, R Ali-Fehmi, EE Frauenhoffer, DP Montiel, I Kim, SR Hong, D Barbuto, A Malpica, EG Silva Multi-Institutional Study, University of Ottawa, The Ottawa Hospital, Ottawa, ON, Canada

182 Frozen Section Results Do Not Influence the Decision To Perform Lymphadenectomy in Low Grade Endometrial Adenocarcinoma (1120) BD Djordjevic, ED Euscher, AA Roma, EJ Moschiano, R Ali-Fehmi, EE Frauenhoffer, DP Montiel, I Kim, SR Hong, DA Barbuto, A Malpica, EG Silva Multi-Institutional Study, University of Ottawa, The Ottawa Hospital, Ottawa, ON, Canada

183 Number of Involved Lymphatic Vessels and Their Distance from Tumor Are Independent Prognostic Factors of Lymph Node Metastases in Low Grade Endometrial Adenocarcinoma. A Multi-Institutional Study (1231) D Perez Montiel, E Dierksen Euscher, A Roma, EJ Moschiano, R Ali-Fehmi, EF Frauenhoffer, I Kim, BD Djordjevic, DA Barbuto, S Rang Hong, A Malpica, EG Silva Instituto Nacional de Cancerologia, Mexico City, Mexico; Multi Institutional Study, Los Angeles

184 Detection of the JAZF1-JJAZ1 Fusion Transcript in Endometrial Biopsy Material Several Years Prior to the Clinical Presentation of Endometrial Stromal Sarcoma (1250) S Stemme, M Ghaderi, R Vaziri, JW Carlson Karolinska University Hospital, Stockholm, Sweden

185 microRNA Expression Profiling of Low-Grade Endometrial Stromal Sarcomas and Undifferentiated Endometrial Sarcomas (1106) S Chiang, MA Castilla, J Palacios, E Oliva Massachusetts General Hospital, Boston, MA; Hospital Universitario Virgen del Rocio-Instituto de Investigaciones Biomedicas, Sevilla, Spain

186 Proliferation in the Normal Tubal Epithelium Is a Hallmark of the Follicular Phase Not BRCA1 Mutation Status (1140) SHE George, A Milea, PJ Shaw University Health Network, University of Toronto, Toronto, Canada

187 PAX2-Null Secretory Cell Outgrowths (SCOUTs) in the Fallopian Tube Comprise Two Distinct Subgroups (1094) JG Bijron, CP Crum, FD McKeon, W Xian, G Ning Brigham and Women’s Hospital, Boston, MA; Harvard Medical School, Boston, MA; Institute of Medical Biology, A*STAR, Singapore

188 Precise Precursor Frequency Assessment by Digital Quantification of Oviductal Epithelium (1093) JG Bijron, G Ning, AR Laury, CM Quick, NM Monte, FD McKeon, W Xian, E King, CP Crum Brigham and Women’s Hospital, Boston, MA; Harvard Medical School, Boston, MA; UCLA Medical Center, Los Angeles, CA; University of Arkansas Medical Center, Little Rock, AR; Genome Institute, A*STAR, Singapore

189 P-ERM, a Marker of Cell Polarity, Distinguishes Tubal Intraepithelial Carcinoma from Benign Oviductal Mucosa (1217) G Ning, J Yuan, IY Hwang, MS Hirsch, FD McKeon, CP Crum, W Xian Harvard Medical School, Boston, MA; Institute of Medical Biology, A*STAR, Singapore; Brigham and Women’s Hospital, Boston, MA; University of Massachusetts Medical Center, Worcester, MA

190 Serous Tumor of Low Malignant Potential of the Ovary – Is the 10% Cut-Off Reliable? (1234) P Ramalingam, MT Deavers, A Malpica MD Anderson Cancer Center, Houston
191 Claudin-18, MUC1, MUC2, and MUC5AC Are Differentially-Expressed in Ovarian Intestinal- and Endocervical-Type Mucinous Borderline Tumors (1152)
SA Halimi, D Maeda, M Fukayama
Graduate School of Medicine, the University of Tokyo, Tokyo, Japan

192 Loss of Ciliated Cells Correlates with Tumor Progression in Ovarian Low-Grade Serous Carcinoma (1087)
L Ardighieri, RJ Kurman, I-M Shih
Johns Hopkins University, Baltimore, MD

193 P16 Expression in Early Müllerian Serous Carcinogenesis (1215)
H Naftz, Z Ghorab, N Ismiil, R Saad, V Dube, MA Khalifa, S Nochef-Mozes
University of Toronto, Toronto, Canada; Sunnybrook Health Sciences Centre, Toronto, Canada

194 Significance of Alterations of the RB1 Pathway in High Grade Serous Carcinoma (1209)
A Milea, SHL George, H Berman, M Gauthier, PA Shaw
University Health Network, Toronto, Canada

195 IMP3, EGFR and E-Cadherin in High Grade Ovarian Serous Carcinomas To Predict Disease Progression and Survival (1227)
D Patel, SK Mohanty, K Singh, C Walsh, EG Silva
Cedars-Sinai Medical Center, Los Angeles, CA; Harvard Medical School, Boston, MA

196 IMP3 Expression Differentiates Ovarian Serous from Endometrioid Carcinoma (1145)
S Goodman, D Lu
Umass Memorial Medical Center, Worcester, MA

197 Oncofetal Protein IMP3, a Molecular Marker for the Malignant Progression of Ovarian Serous Neoplasm (1144)
S Goodman, X Yang, D Lu
Umass Memorial Medical Center, Worcester, MA

198 Microcystic Stromal Tumor Is a Distinct Ovarian Neoplasm Characterized by β-Catenin Alteration (1193)
D Maeda, J Shibahara, T Sakuma, K Sueyoshi, A Sakata, M Noguchi, M Fukayama
The University of Tokyo, Tokyo, Japan; Osaka Rosai Hospital, Sakai, Japan; Kagoshima Municipal Hospital, Kagoshima, Japan; The University of Tsukuba, Tsukuba, Japan

199 Juvenile Granulosa Cell Tumors: Immunoreactivity for CD99 and Fli-1 and EWSR1 Translocation Status. A Study of Eleven Cases (1165)
EA Jarboe, LJ Layfield, ML Wallander, SR Tripp
University of Utah School of Medicine, Salt Lake City, UT; ARUP Laboratories, Salt Lake City, UT

200 The Role of Reticulum, Inhibin and Calretinin Staining and FOXL2 Mutational Analysis in the Diagnosis of Sarcomatoid Granulosa Cell Tumors, Cellular Fibromas and Thecomas (1131)
J Felipe Lima, F Medeiros, D Bell
Mayo Clinic, Rochester, MN

201 FOXL2 Molecular Testing in the Diagnosis of Ovarian Neoplasms (1179)
S Kommoss, M Anglesio, W Yang, W Luong, J Lorette, L Bell, S Lee, B Gilks, D Huntsman
University of British Columbia, Vancouver, BC, Canada; British Columbia Cancer Agency, Vancouver, BC, Canada

Characterization and Comparison of Ovarian Primitive Neuroectodermal Tumors and Immature Teratomas by Immunohistochemistry and Fluorescence In-Situ Hybridization (1169)
NM Joseph, MP Powers, CJ Zaloudek
UCSF, San Francisco

A Clinicopathological and Immunohistochemical Study of 54 Cases of Dysgerminoma and Gonadoblastoma (1174)
AN Karnezis, JR Jalas, Y Li, Y-FC Lau, L-M Chan, T Langacre, CJ Zaloudek
UCSF, San Francisco, CA; Veterans Affairs Medical Center, San Francisco, CA; Stanford University, Palo Alto, CA; St. John’s Health Center, Santa Monica, CA

HEMATOPATHOLOGY

LMO2 (LIM Domain Only 2, Rhombotin-Like 1) Is Expressed in a Subset of Acute Myeloid Leukemia Patients and Correlates with Normal Cytogenetic Status (1510)
JL Patel, S-J Haggstrom, P Pourazari, F Kosari, Y Natkunanam, A Mansoor
University of Calgary and Calgary Laboratory Services, Calgary, AB, Canada; Stanford University School of Medicine, Stanford, CA

HIF1α Expression Is Associated with NPM1 Mutation, but Not IDH1 or IDH2 Mutations in Acute Myeloid Leukemia with Normal Karyotype (1431)
University of Texas MD Anderson Cancer Center, Houston; Baylor College of Medicine, Houston

Endoglin (CD105) Is Strongly Overexpressed in AML with t(15;17)/PML-RARA and Is Significantly Associated with IDH2 Mutation, but Is Not Expressed in Bone Marrow Endothelial Cells (1373)
Z Chakhchiro, Z Zuo, H Kantarjian, J Cortes, K Aalayed, M Nguyen, S Vadhan-Raj, J Medeiros, C Bueso-Ramos
MD Anderson Cancer Center, Houston, TX

The Prevalence of CD56 Expression by Flow Cytometry in Acute Promyelocytic Leukemia Patients Treated with All-Trans Retinoid Acid and Anthracycline Drug Combinations (1506)
H Olteanu, AM Harrington, SH Kroft, NJ Karandikar, FF Fuda
Medical College of Wisconsin, Milwaukee, WI; UT Southwestern Medical Center, Dallas, TX

B-Cell Expression and B-Cell Gene Rearrangements in AML with t(8;21)(q22;q22) (1447)
RC Johnson, L Ma, DA Arber, TI George
Stanford University, Stanford, CA

Characterization of Bone Marrow Mast Cells in RUNX1-RUNX1T1 Acute Myeloid Leukemia (1521)
ST Pullarkat, VA Pullarkat, A Lagoo, W Chen, V Bedell, R Brynes, S Yea, Q Huang, Y Kim
UCSF, San Francisco, CA; USC -Keck School of Medicine, Los Angeles, CA; Duke University Medical Center, Durham, NC; City of Hope National Medical Center, Duarte, CA
210 Acute Myeloid Leukemia Associated with Isolated Del(6q) Demonstrates Unique Clinical, Morphological and Cytogenetic Characteristics (1425) D Hoehn, P Lin, R Muddasani, D Ng, KH Young, G Lu The University of Texas M.D. Anderson Cancer Center, Houston, TX

211 Myeloid Neoplasia with t(3;8)(q26;q24): Report of Four Cases and Review of the English Literature (1598) X Xu, M Su, NB Levy, P Kaur, R Garcia, A Mohtashamian, HE Broome, ML Dell’Aquila, H-Y Wang Univ. of California San Diego, La Jolla, CA; Univ. of Texas Southwestern Medical Center, Dallas, TX; Dartmouth-Hitchcock Medical Center, Lebanon, NH; Naval Medical Center San Diego, San Diego, CA

212 Acquired Trisomy 21 as a Sole Chromosomal Abnormality Is Associated with a Heterogeneous Group of Myeloid Neoplasms and Variable Disease Outcome (1381) SS Chen, CC Yin, SN Konoplev, KH Young, R Muddasani, LJ Medeiros, G Lu University of Texas MD Anderson Cancer Center, Houston, TX

213 Myeloid Neoplasms with inv(3)(q21q26.2)/t(3;3)(q21;q26.2) Are Aggressive Neoplasms Irrespective of Blast Count (1585) DW Warden, HJ Rogers, J Cook, ED Hsi Clinic Cleveland, Cleveland, OH

214 Acute Myeloid Leukemia with Translocations Involving 4q12/ PDGFRA: Frequent Involvement of ETV6 (1450) R Kanagal-Shamanna, CC Yin, R Muddasani, R Luthra, J Cortes, Z Zhuo, SS Chen, D Hoehn, LV Abruzzo, RN Miranda, LJ Medeiros, G Lu UT MD Anderson Cancer Center, Houston, TX

215 Clinical and Biological Characteristics of Phenotypically Poorly Differentiated Acute leukemias (1530) N Rodic, A Daffield, CD Gocke, KH Burns, MJ Borrowitz, M Vaica-Ross Johns Hopkins Medical Institute, Baltimore, MD

216 Acute Myeloid Leukemia with Minimal Differentiation: TdT Expression Is Associated with Better Overall Survival Following Stem Cell Transplantation (1511) KP Patel, FA Khokhar, T Muzzafar, MJ You, F Ravandi, C Bueso-Ramos, LJ Medeiros The University of Texas M.D. Anderson Cancer Center, Houston, TX

217 Immunophenotypic Aberrancies in the Maturing Myeloid and Monocytic Compartment in Acute Myeloid Leukemia by Flow Cytometry (1512) Y Pei, J Schallheim, G Fan Oregon Health & Science University, Portland

218 Flow Cytometric Blast Immunophenotype in Acute Myeloid Leukemias Arising from Non-Acute Myeloid Disorders (1581) J Vaughan, H Olteanu, SH Kroft, AM Harrington Medical College of Wisconsin, Milwaukee, WI

219 Blast Immunophenotypes by Flow Cytometry in Acute Myeloid Leukemia with Myelodysplasia-Related Changes (1580) J Vaughan, H Olteanu, SH Kroft, AM Harrington Medical College of Wisconsin, Milwaukee, WI

220 WT1 RNA Expression in Different Cell Lineages in Normal and Leukemic Bone Marrow (1356) DC Ang, F Yang, C Qu, G Lanier, G Fan, R Press Oregon Health and Science University, Portland, OR

221 Plasmacytoid Dendritic Cell Marker CD123 Alone Does Not Have Prognostic Value in Acute Myeloid Leukemia (AML) (1605) D Zhang, L Blick, M Davis, W Cui, MT Cunningham University of Kansas Medical Center, Kansas City, KS; University of Massachusetts Medical School, Worcester, MA

222 Prognostic Factors in Unfavourable-Risk Acute Myeloid Leukemia in the Absence of Monosomal Karyotype (1380) M Chen, J Brandwein, KJ Craddock, H Chang University Health Network, University of Toronto, Toronto, Canada

223 Post Stem Cell Transplantation Monitoring in Acute Myeloid Leukemia by Markers of Minimal Residual Disease and Engraftment (1453) AS Kim, MK Kressin, CA Mosse, A Seegmiller Vanderbilt University Medical Center, Nashville, TN

224 Leukemia-Associated Aberrant Immunophenotype (LAIP) in Patients with Acute Myeloid Leukemia (AML): Changes at Refractory Disease or First Relapse and Clinicopathological Findings (1388) W Cui, D Zhang, M Cunningham, L Tilzer The University of Kansas Medical Center, Kansas City, KS

225 Bone Marrow Cellularity during Induction Is Highly Predictive of Complete Remission in De Novo AML but Not in Secondary/Therapy-Related AML (1610) G Zheng, AE DeZern, KW Pratz, JE Karp, CD Gocke Johns Hopkins University School of Medicine, Baltimore, MD

226 Re-Evaluation of Risk Factors for Relapse in APL Patients Treated with All-Trans Retinoic Acid (ATRA) and Arsenic Trioxide (ATO) Frontline Chemotherapy (1612) Y Zhou, R Luthra, F Ravandi, H Kantarjian, JL Jorgensen, C Bueso-Ramos, LJ Medeiros, S Konoplev Department of Leukemia, The University of Texas, MD Anderson Cancer Center, Houston, TX

227 A Simple Approach to Flow Cytometric Assessment of Myeloid Dysmaturation (1445) D Jevremovic, MT Timm, CA Hanson, WG Morice, PL Nguyen Mayo Clinic, Rochester, MN

228 Flow Cytometry Immunophenotyping (FCIP) of Bone Marrow Blasts in Myeloid Neoplasms: Distinction from Normal Does Not Require Increased Blasts (1502) PL Nguyen, MM Timm, WG Morice, CA Hanson, D Jevremovic Mayo Clinic, Rochester, MN

229 Application of Flow Cytometry, Fluorescent In-Situ Hybridization and Cytogenetics in Diagnosis of Myelodysplastic Syndrome (1606) P Zhang, D Harris, R Falks, ST Zhang, A Cinco St. Francis Hospital, Thomas Healthcare System, Charleston, WV

230 Limited Diagnostic Utility of MDS FISH Testing in Myeloid Neoplasms at Diagnosis and Follow-Up (1540) AC Seegmiller, M Kressin, AS Kim, CA Mosse Vanderbilt University Medical Center, Nashville, TN; Tennessee Valley Healthcare System, Nashville, TN
Myelodysplastic Syndrome with Complex Cytogenetics Abnormalities and CD34+ Megakaryocytes (1378)
  SS Chekol, Q Chen, NM Nanji
  University of Maryland Medical Center, Baltimore, MD

CD34 Staining in Megakaryocytes Is Not Specific for Myeloid Malignancies and Has Minimal Diagnostic Value (1592)
  DS West, CA Hanson, ED McPhail, JD Hoyer
  Mayo Clinic, Rochester, MN

Significance of P53 Immunostaining in the Diagnosis of Myelodysplastic Syndromes (1494)
  Z Mohammad Taheri, P Pournazari, I Auer, A Mansoor, J Luider, M Torbatian, M-T Shabani-Rad
  University of Calgary/Calgary Laboratory Services, Calgary, Canada; National Research Institute of Tuberculosis and Lung Disease, Tehran, Islamic Republic of Iran

G-CSF-R (CD114) Expression Patterns in Normal and Malignant Hematopoiesis: Recurring Phenotypic Abnormalities in Myelodysplasia and Chronic Myelogenous Leukemia (1420)
  VS Hanumantlu, SJ Pirruccello
  UNMC, Omaha, NE

Utility of CD117 Immunohistochemistry in Evaluation of Myelodysplastic Syndrome (1597)
  X Wu, J Zhou, S Zhang, M Nassiri, M Czader
  Indiana University, Indianapolis, IN

Decreased Expression of Myelopoietic Determining Factor PU.1 in Myelodysplastic Syndrome (MDS) (1469)
  DG Leino, DP Arps, JX Cheng
  University of Michigan, Ann Arbor, MI

Increased Bone Marrow Mast Cells, Enumerated by Multiparameter Flow Cytometry, Are Associated with Myelodysplastic Syndromes (1371)
  FJ Castro-Silva, FS Fuda, NJ Karandikar
  University of Texas Southwestern, Dallas, TX

Paraneoplastic Skin Findings in Patients with Myelodysplastic Syndromes and Chronic Myelomonocytic Leukemia (1513)
  D Peker, L Moscinski, R Mathew, L Zhang
  H. Lee Moffitt Cancer Center, Tampa, FL

Bone Marrow Histopathology in 8 Patients with Myeloid Neoplasms and PRDM16 Translocations: Analysis Reveals Recurring Dysplastic Features (1390)
  LN Dao, RA Knudson, RP Ketterling, WR Sukov
  Mayo Clinic, Rochester, MN

Fli-1 Expression Is Increased in Erythroblasts in MDS with Del(5q) and Correlates with Response to Lenalidomide (1366)
  DF Boyer, E Attar, RP Hasserjian
  Massachusetts General Hospital, Boston

Next Generation Sequencing Leads to the Discovery of Novel Associations of miRNA with Myelodysplastic Syndromes (1413)
  JM Gonzalez Berjon, K Alvarez, E Hudspeth, J Wen, FA Monzon Bordonaba, RJ Olsen, Y Zu, X Zhou, J Chang
  The Methodist Hospital/Weil Medical College of Cornell University, Houston, TX; The Methodist Hospital, Houston, TX; Florida Hospital, Orlando, FL; Baylor College of Medicine, Houston, TX

BRUCE: A Novel Protein Associated with Carcinogenesis of Liver and Potential Marker for Differential Diagnosis (1759)
  R Patel, J Lu, C Du, J Wang
  University of Cincinnati College of Medicine, Cincinnati, OH

The Effect of the Etiology of Cirrhosis on Glypican-3 Expression in Hepatocellular Carcinoma (1756)
  JM Orrock, T Mounajjed, L Zhang, T-T Wu
  Mayo Clinic, Rochester, MN

Oncogenic SULF2 Protein Expression Is Associated with Pathogenesis of Cirrhosis and Hepatobiliary Carcinoma (1742)
  National Cancer Institute, National Institutes of Health, Bethesda, MD; Mayo Clinic, Rochester, MN

Utility of HSP70, Glutamine Synthetase and Glypican-3 Comparison of Hepatocellular Markers for Diagnosis of Poorly-Differentiated Hepatocellular Carcinoma: High Sensitivity with Combined Use of Arginase-1 and Glypican-3 (1760)
  DGK Phillips, D Jain, M Torbenson, T-T Wu, MMC Yeh, S Kakar
  University of California, San Francisco, San Francisco, CA; Yale-New Haven Hospital, New Haven, CT; The Johns Hopkins Hospital, Baltimore, MD; Mayo Clinic, Rochester, MN; University of Washington, Seattle, WA

Comparison of Hepatocellular Markers for Diagnosis of Poorly-Differentiated Hepatocellular Carcinoma: High Sensitivity with Combined Use of Arginase-1 and Glypican-3 (1760)
  DGK Phillips, D Jain, M Torbenson, T-T Wu, MMC Yeh, S Kakar
  University of California, San Francisco, San Francisco, CA; Yale-New Haven Hospital, New Haven, CT; The Johns Hopkins Hospital, Baltimore, MD; Mayo Clinic, Rochester, MN; University of Washington, Seattle, WA

Type II Ground Glass Hepatocytes Are Strongly Associated with Fibrosis Stage and Hepatocellular Carcinoma (1740)
  F-Y Kuo, J Alexander, M Torbenson, M Yeh
  Chang Gung Medical Center, Kaohsiung, Taiwan; Univ of Washington, Seattle; Johns Hopkins Univ, Baltimore
A Target Capture Based Next Generation Sequencing Panel for Identification of Reurrent Somatic Mutations in Cancer (1885)
E Duncavage, D Spencer, H Abel, S Kulkarni, K Seibert, R Nagarajan, R Mitra, M Watson, J Pfeifer
Washington University, St. Louis, MO; Washington University, St. Louis, MO

Identification of Microvascular Invasion Biomarkers in Hepatocellular Carcinomas by MALDI Imaging Mass Spectrometry (1899)
N Pote, T Alexandrov, S Laouirem, J Belghiti, P Bedossa, V Paradis
Beaujon Hospital, Assistance Publique-Hôpitaux de Paris, Clichy, France; INSERM U773, Beaujon Hospital, Clichy, France; University of Bremen, Bremen, Germany; University Denis Diderot, Paris, France

Identification of Heterogeneous Nuclear Ribonucleoprotein K (hnRNP K) as a Biomarker in Hepatocellular Carcinoma in Patients with Cirrhosis by Proteomic and Immunohistochemical Studies (1886)
Y Guo, J Zhao, J Bi, M Chen
Beijing Jishuitan Hospital, Beijing University Health Science Center, Beijing, China; University of California Davis Medical Center, Sacramento, CA

Multisite Analytical Validation of a 92-Gene Molecular Classifier for Cancers of Uncertain Primary (1888)
SE Kerr, CA Schnabel, PS Sullivan, Y Zhang, V Singh, B Carey, MG Erlander, WE Highsmith, SM Dry, EF Brachtel Mayo Clinic, Rochester, MN; bioTheranostics, Inc., San Diego, CA; University of California Los Angeles, Los Angeles, CA; Massachusetts General Hospital, Boston, MA

PiwI-Interacting RNAs Are Differentially Expressed in Renal Cell Carcinoma and Its Metastasis (1893)
Y Li, X Wu, H Guo, X Li, JM Jin, F Wang, B Mu, J Wang, YS Kim, LM Weiss, H Wu
City of Hope National Medical Center and Beckman Research Institute, Duarte, CA; Third Military Medical University, Chongqing, China

Identification of Circulating Autoantibodies as Novel Ovarian Cancer Biomarkers (1897)
MA Murphy, DJ O’Connell, JK O’Brien, S O’Toole, SL O’Kane, C Martin, O Sheils, JJ O’Leary, DJ Cahill Trinity College Dublin, Dublin, Ireland; University College Dublin, Dublin, Ireland

Identification of Reurrent Somatic Mutations in Cancer (1885)
E Duncavage, D Spencer, H Abel, S Kulkarni, K Seibert, R Nagarajan, R Mitra, M Watson, J Pfeifer
Washington University, St. Louis, MO; Washington University, St. Louis, MO

Assessment of CGH-Array Usefulness in Metachronous Tumors (1891)
F Le Loarer, P Lagarde, A Neuville, JM Coindre, F Chibon
Rouen University Hospital, Rouen, France; Institut Bergonie, Bordeaux, France

Stemness Gene Expression Profiles in Cancer Stem Cell Progenies Derived from a Cell Line Panel +/- BRAF Mutation (1904)
G Sommerville, P Smyth, JJ O’Leary, O Sheils
Trinity College Dublin, Dublin, Ireland

Whole Exome Sequencing of Both Components of a Mixed Adenocarcinoma/Small Cell Carcinoma of the Gallbladder (1911)
LD Wood, Y Jiao, A Maitra, P Argani, JL Cameron, N Papadopoulos, KW Kinzler, B Vogelstein, RH Hruban Johns Hopkins University School of Medicine, Baltimore, MD

Functional Correlates of Jab1 Networks in Triple Negative Breast Cancer (1902)
MM Sasamoto, TT Vu, FX Claret, ME Edgerton
UT MD Anderson Cancer Center, Houston, TX

Diagnostic Value of DNA Mutational Analysis of Residual Liquid Gynecologic Cytology in Detecting Malignancy (1898)
S Patel, AR Smith, A Mohanty, U Krishnamurthi, C Binkert, B Ujevich, SJ Bokhari, JF Silverman, SD Finklestein, Y Liu Allegheny General Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Inc., Pittsburgh, PA

Global 5-Hydroxymethylcytosine Content Is Significantly Reduced in Human Cancers (1887)
MC Haffner, A Chaux, AK Meeker, DM Espani, J Gerber, LG Pellakuru, A Toubaji, P Argani, C Iacobuzio-Donahue, WG Nelson, GJ Neto, AM De Marco, S Vegnasubramanian Johns Hopkins University, Baltimore, MD

Molecular and Clinicopathological Characteristics of HER2 Mutant Lung Adenocarcinoma (ADC) (1900)
S Roy Chowdhuri, J Chaft, K Nafa, M Kris, M Zakowski, M Ladanyi, M Arcila
Memorial Sloan-Kettering Cancer Center, New York

Salinomycin: Antitumoral Effects and Gene Expression in Neuroblastoma Cells (1910)
P Weerasinghe, ML Buja, RE Brown
UT Health Medical School, Houston, TX

Absence of ERG Expression Predicts Early Prostate Cancer Biochemical Recurrence When Combined with DNA Methylation Status of a Development-Associated Gene (1907)
D Trudel, K Kron, L Liu, J Trachtenberg, N Flesher, B Bapat, TH Van der Kwast
Princess Margaret Hospital, University Health Network, Toronto, Canada; Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Canada

Downregulation of Genes Contributes to Chemoresistance Induced by Hypoxia (1895)
LM McEvoy, SA O’Toole, CD Spillane, CM Martin, O Sheils, JJ O’Leary
Trinity College Dublin, Dublin, Ireland

MiR-335 Is Upregulated upon Retinoic Acid-Induced Differentiation of NTer-a Human Embryonal Carcinoma Cell Line and Can Induce Differentiation (1909)
S Vencken, M Gallagher, S Elbaruni, C Martin, O Sheils, J O’Leary
Trinity College Dublin, Dublin, Ireland
291 Mass Spectrometry-Based Glycoproteomic Profiling Identifies SIRP alpα as a Potential Protein Biomarker in Primary Mediastinal Large B-Cell Lymphoma (1882)
NA Brown, D Rolland, D Fermin, V Basrur, D Thomas, F Keyoumarsi, K Conlon, KSI Elenitioba-Johnson, MS Lim
University of Michigan, Ann Arbor, MI

292 Molecular Histologic Correlations in the Cancer Genome Atlas (TCGA) Study of Lung Squamous Cell Carcinoma (SQC) (2049)
WD Travis, N Rekhtman, R Shen, ES Yi, MC Aubry, R Cheney, S Dacic, D Flieder, W Funkhouser, P Illei, J Myers, MS Tsao, M Wilkerson, P Hammertime, R Govindan, N Hayes, M Meyerson
Memorial Sloan Kettering, New York, NY; Mayo Clinic, Rochester, MN; Roswell Park, Buffalo, NY; Univ of Pittsburgh, Pittsburgh, PA; Fox Chase Cancer Center, Philadelphia, PA; Univ of North Carolina, Chapel Hill; Johns Hopkins, Baltimore, MD; Penrose-St. Francis Health Services, Colorado Springs, CO; Princess Margaret Hospital, Toronto, ON, Canada; Dana Farber Cancer Institute, Boston, MA; Washington University, St. Louis, MO

293 SOX2 Amplification in Bronchial Squamous Dysplasia (2043)
F Schneider, C Sherer, K Cieply, S Dacic
University of Pittsburgh Medical Center, Pittsburgh, PA

294 A Study of ΔNp63 (p40) Expression in Non-Small Cell Lung Carcinomas (2022)
D Nonaka
The Christie Hospital, University of Manchester, Manchester, United Kingdom

295 p40 (ΔNp63) is Superior to p63 for the Diagnosis of Pulmonary Squamous Cell Carcinoma (1967)
JA Bishop, J Teruya-Feldstein, WH Westra, G Pelosi, WD Travis, N Rekhtman
The Johns Hopkins Medical Institutions, Baltimore, MD; Memorial Sloan-Kettering Cancer Center, New York, NY; Fondazione IRCCS National Cancer Institute and University of Milan School of Medicine, Milan, Italy

296 Immunoreactivity for DeltaNp63-p40, a Basal-Type Marker, as a Holistic, Single-Shot Diagnostic Adjunct Approach to Morphology for Lung Cancer Subtyping (2028)
G Pelosi, G Rossi, A Cavazza, L Righi, U Pastorino, P Scanagatta, N Rekhtman, A Sonzogni, M Papotti
National Cancer Institute and University of Milan School of Medicine, Milan, Italy; Azienda Ospedaliero-Universitaria Policlinico, Modena, Italy; Arcispedale Santa Maria Nuova, Reggio Emilia, Italy; University of Turin, Turin, Italy; National Cancer Institute, Milan, Italy; Memorial Sloan-Kettering Cancer Center, New York; European Institute of Oncology, Milan, Italy

297 HER2 Mutated Lung Adenocarcinoma Is a Distinct Molecular and Clinicopathologic Entity (2044)
J Shen, K Taneja, W Zhang, DA Dillon, L Gandhi, LM Sholl
Brigham and Women’s Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA; Charlton Memorial Hospital, Fall River, MA

298 Peripheral Lung Adenocarcinomas with Pleural Invasion Are More Likely To Harbor KRAS Mutation (2051)
C Villa, A Yeldandi, R Navar, P Cagle, K Raparia
Northwestern University, Chicago, IL; The Methodist Hospital, Houston, TX

299 C-Kit Expression Is Associated with KRAS Mutation in Lung Adenocarcinoma (2002)
AE Kovach, V Klepeis, EJ Mark, D Dias-Santagata, AJ Iafrate, M Mino-Kenudson
Massachusetts General Hospital, Boston, MA

300 Aberrant and Overexpression of DNA Methyltransferase in KRAS Mutant Pulmonary Adenocarcinomas (2059)
W Zhao, K Shio, S Liu, MA Villalona, GA Otterson, C Hitchcock, Y Tang
The Ohio State University Medical Center, Columbus, OH; University of Minnesota, Rochester, MN

301 Evaluation of c-Met FISH on Non-Small Cell Lung Cancer Samples with Known EGFR Mutational Status (1968)
KJ Bloom, T Ha, L Uyeda, P Chopra
Clariart, A GE Healthcare Company, Aliso Viejo, CA

302 Characterization and Clinical Validation of an Immunohistochemical Assay for Met in Non-Small Cell Lung Cancer (2001)
H Koeppen, T Januario, E Filvaroff, P Towne, R James, P Roche, X Xia, J Zha, B Tauch
Genentech, Inc., South San Francisco, CA; Ventana Medical Systems, Inc., Tucson, AZ

KJ Bloom, J Glassco, P Chopra
Clariart, A GE Healthcare Company, Aliso Viejo, CA

304 Frequency of ALK Translocations in 2560 Non-Small Cell Lung Cancer Samples (1984)
J Glassco, T Ha, D Bouman, P Chopra, KJ Bloom
Clariart, A GE Healthcare Company, Aliso Viejo, CA

305 Can ALK Immunohistochemistry Reliably Identify ALK-Translocated Non-Small Cell Lung Cancer? (1971)
J Bodo, LR Chirieac, L Durkin, ED Hsi
Cleveland Clinic, Cleveland, OH; Brigham and Women’s Hospital, Boston, MA

306 Assessment of the ALK Antibody, 5A4 in Detecting ALK Rearrangements in Non-Small Cell Lung Cancer Specimens (1985)
J Glassco, A Kyshkoobayeova, KJ Bloom
Clariart, A GE Healthcare Company, Aliso Viejo, CA

307 Fluorescence In Situ Hybridization (FISH)-Assessed Amplification of Anaplastic Lymphoma Kinase (ALK) Gene Is Detectable in a Subset of Pulmonary Sarcomatoid Carcinomas (PSC) (2027)
G Pelosi, P Gasparini, G Sozzi, R Caserini, A Cavazza, G Rossi, M Papotti, U Pastorino, P Scanagatta, M Barberis, Y Nakatani
National Cancer Institute and University of Milan School of Medicine, Milan, Italy; National Cancer Institute, Milan, Italy; Arcispedale Santa Maria Nuova, Reggio Emilia, Italy; Azienda Ospedaliero-Universitaria Policlinico, Modena, Italy; University of Turin, Turin, Italy; European Institute of Oncology, Milan, Italy; Chiba University Graduate School of Medicine, Chiba, Japan

308 Histologic Multivariate Model for Predicting Presence of ALK-Rearrangement in Lung Adenocarcinoma (2021)
M Nishino, VE Klepeis, B Yeap, K Bergethon, MJ Mark, AJ Iafrate, M Mino-Kenudson
Massachusetts General Hospital, Boston
J Hernandez-Losa, P Martinez, J Castellvi, T Natalia, T Molina, MA Montero, C Cedres, V Rodriguez-Freixinos, EFelip, S Ramon y Cajal
Hospital Universitari Vall d’Hebron, Barcelona, Spain; VHIR, Universitat Autonoma de Barcelona, Barcelona, Spain

Feasibility of Molecular Testing in Patients with Chemorefractory Non-Small Cell Carcinoma (1997)
N Kalhor, X Tang, ES Kim, V Papadimitrakopoulou, JJ Lee, RS Herbst, CM Alden, HS Erickson, CA Moran, AL Tam, S Gupta, SM Lipman, WK Hong, IL Wistuba
MD Anderson Cancer Center, Houston, TX; Yale School of Medicine, New Haven, CT

Usefulness of MicroRNAs as Prognostic Factors in Early Stage Non Small Cell Lung Carcinoma (NSCLC) (2030)
J Ramirez, M Campayo, ML Cabanas, N Vinolos, R Marrades, LMolins, M Monzo
Hospital Clinic. IDIBAPS, CIBERES. Universitat de Barcelona, Barcelona, Spain; Universitat de Barcelona, Barcelona, Spain

New MicroRNA-Based Diagnostic Test for Lung Cancer Classification (2040)
Rosetta Genomics Inc., Philadelphia; Rosetta Genomics Ltd., Rehovot, Israel; Thomas Jefferson University Hospital, Philadelphia; Jamaica Hospital Medical Center, Jamaica, NY; Temple University Hospital, Philadelphia; Rabin Medical Center, Petah Tikva, Israel; Tel Aviv University, Tel Aviv, Israel; Sheba Medical Center, Tel-Hashomer, Israel; Drexel University College of Medicine, Philadelphia; Cooper University Hospital, Camden

Cribriform Adenocarcinoma of the Lung: Clinicopathologic, Immunohistochemical and Molecular Study of 15 Cases (2013)
A Luevano, N Rao, AC MacKinnon, S Suster
Medical College of Wisconsin, Milwaukee, WI

Cribriform Pattern Identifies a Poor Prognostic Subset of Acinar Predominant Tumors in Stage I Lung Adenocarcinoma Patients (1995)
K Kadota, Y-C Yeh, K Suzuki, CS Sima, VW Rusch, AL Moreira, PS Adusumilli, WD Travis
Memorial Sloan-Kettering Cancer Center, New York

Accuracy of Frozen Sections (FS) in Predicting Predominant Histologic Subtype and Presence/Absence of Micropapillary and Solid Patterns in Lung Adenocarcinoma (ADC) ≤ 3 cm (2057)
Y-C Yeh, J Nitadori, K Kadota, A Yoshizawa, VW Rusch, PS Adusumilli, WD Travis
Memorial Sloan-Kettering Cancer Center, New York City

The Influence of the Bronchiolalveolar Component of an Invasive Adenocarcinoma on Survival (1990)
FS Hasleton, T-E Strand, EH Strom, H Rostad
Hebrew University, Jerusalem, Israel; Cancer Registry of Norway, Oslo, Norway; Oslo University Hospital, Oslo, Norway
PROFFERED PAPERS
Tuesday, March 20, 2012
1:00 - 2:45 PM
CC Ballroom C
Section B - Gynecologic & Obstetrics
Chaired by: Kay Park and Joseph Rabban

1:00
Endocervical Adenocarcinoma – Proposal for a New Pattern-Based Classification System with Significant Clinical Implications: A Multi-Institutional Study (1224)
KJ Park, I Alvarado-Cabrero, G Rasty, SR Hong, JG Chanona-Vilchis, A Diaz De Vivar, B Arville, DA Barbuto, JKL Rutgers, AA Roma, R Ali-Fehmi, F Tabassum, N Teramoto, Y Mikami, EG Silva
MSKCC, New York; Mexican Oncology Hosp, Mexico City, Mexico; Univ Health Network, Toronto, Canada; Kwangdong Univ, Seoul, Korea; Inst Nacional de Cancerologia, Mexico City, Mexico; MDACC, Houston; Cedars Sinai Med Cnt, Los Angeles; Long Beach Memorial Hosp, Irvine; Cleveland Clinic, Cleveland; Wayne State, Detroit; Shikoku Cancer Cnt, Ehime, Japan; Kyoto Univ, Kyoto, Japan

1:15
Gastric-Type Endocervical Adenocarcinoma – An Aggressive Histologic Subtype (1171)
Y Karamurzin, V Parkash, T Kiyokawa, RA Soslow, KJ Park
Memorial Sloan-Kettering Cancer Center, New York, NY; Yale University School of Medicine, New Haven, CT; Chiba University School of Medicine, Chiba, Japan

1:30
PAX8 and PAX2 Expression in Endocervical Adenocarcinoma In-Situ and High-Grade Squamous Dysplasia (1244)
A Shukla, D Thomas, MH Roh
University of Michigan Medical School, Ann Arbor, MI

1:45
A Candidate Cell of Origin for Cervical Cancer (1157)
M Herfs, Y Yamamoto, AR Laury, W Xian, FD McKeon, CP Crum
University of Liege, Liege, Belgium; Institute of Medical Biology, A*STAR, Singapore; UCLA Medical Center, Los Angeles, CA; Harvard Medical School, Boston, MA; Brigham and Women’s Hospital, Boston, MA

2:00
Does HPV RNA Chromogenic In Situ Hybridization (CISH) Discriminate between Low and High Grade Cervical Squamous Intraepithelial Lesions (SIL)? (1107)
KM Clark, MF Evans, X-J Ma, X Wu, Y Luo, Z Peng, K Cooper
Fletcher Allen Health Care, Burlington, VT; University of Vermont, Burlington, VT; Advanced Cell Diagnostics, Inc., Hayward, CA

2:15
Does GVHD Involve the Gyn Tract? Immunohistochemical Expression of Elafin as a Marker of Graft-Versus-Host Disease in Gynecological Biopsies (1142)
GS Gomez-Macias, P Stratton, BA Walter Rodriguez, MJ Merino
NCI, NIH, Bethesda; NICHID, NIH, Bethesda

Ancillary Techniques in Distinction of Androgenetic/Biparental Diploid Mosaic Conceptions from Hydatidiform Moles (1184)
GH Lewis, C DeScipio, KM Murphy, R Vang, BM Ronnett
The Johns Hopkins Medical Institutions, Baltimore, MD; ProPath, Dallas, TX

2:45
RECESS, EXHIBITS, POSTER SESSION IV

PROFFERED PAPERS
Tuesday, March 20, 2012
1:00 - 2:45 PM
CC 211-214
Section C - Cytopathology
Chaired by: Jennifer Brainard and Michael Idowu

1:00
Accuracy and False-Positive Rate of the Cytologic Diagnosis of Follicular Cervicitis: Observations from the College of American Pathologists Pap Educational Program (334)
M Auger, W Khalbuss, R Nayar, P Wasserman, C Zhao, R Souers, N Thomas, AT Moriarty
McGill University and McGill University Health Center, Montreal, QC, Canada; University of Pittsburg Medical Center and ShadySide Hospital, Pittsburgh, PA; Northwestern University and Northwestern Memorial Hospital, Chicago, IL; Long Island Jewish Medical Center, New Hyde Park, NY; University of Pittsburgh Medical Center and Magee Women’s Hospital, Pittsburgh, PA; College of American Pathologists, Northfield, IL; AmeriPath Indiana, Indianapolis, IN

1:15
The Role of HRHPV Reflex Testing in the Triage of Peri- and Post-Menopausal Women with LSIL Pap Tests (385)
AB Kernodle, YI Lutterbie, W-K Chiu, MJ DiFurio
University of North Carolina School of Medicine, Chapel Hill, NC; University of North Carolina Women’s and Children’s Hospitals, Chapel Hill, NC; UNC Lineberger Comprehensive Cancer Center, Chapel Hill, NC

1:30
High-Risk Human Papilloma Virus (hrHPV) Positivity Rates with Histologic Correlation in Postmenopausal Women with Low Grade Squamous Intraepithelial Lesion (LSIL) (390)
GR Koinis, JB Patel, A Goyal
Cleveland Clinic Foundation, Cleveland, OH

3:30
BUSINESS MEETING - CC Ballroom A-D

4:20
AWARD PRESENTATIONS
Stowell-Orbison, Autopsy, Surgical Pathology, Castleman and Vogel Awards
Distinguished Pathologist Award - Steven G. Silverberg, MD
F.K. Mostofi Distinguished Service Award - Celeste N. Powers, MD, PhD
President’s Award - Robin A. Cooke, MB, BS, MD
Harvey Goldman Master Teacher and Mentor Award - Virginia A. LiVolsi, MD
Ramzi Cotran Young Investigator Award - Cristina Antonescu, MD

5:00
MAUDE ABBOTT LECTURE - Robert J. Kurman, MD

6:00
USCAP FOUNDATION BENEFIT RECEPTION - CC Ballroom Pre-Function Area
### PROFFERED PAPERS

**Tuesday, March 20, 2012**

**1:00 - 2:45 PM**

**CC 202-204**

**Section E - Techniques**

**Chaired by: John Iafrate and Alexander Lazar**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Authors</th>
<th>Institutions</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Next-Generation Pathology: Deep DNA Sequencing and Targeted Therapy for Cancer</td>
<td>C Sheehan, A Parker, M Jarosz, S Downing, R Yelensky, D Lipson, G Palmer, M Cronin, J Ross</td>
<td>Albany Medical College, Albany, NY; Foundation Medicine Inc., Cambridge, MA</td>
</tr>
<tr>
<td>1:15</td>
<td>Mutational Screening in KRAS, BRAF, EGFR, C-KIT and PDGF &amp; PI3K Colorectal Carcinoma (CRC) and Non-Small Cell Lung Cancer (NSCLC) Using Next-Generation Sequencing (NGS)</td>
<td>T Hinrichsen, O Wachtler, B Dockhorn-Dworniczak, H-G Klein Center for Human Genetics and Laboratory Medicine Dr. Klein and Dr. Rost, Munich, Bavaria, Germany; Dept. of Pathology, Kempten, Bavaria, Germany</td>
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<tr>
<td>1:30</td>
<td>Detection of KRAS Mutations by Locked Nucleic Acid PCR Sequencing in Pancreatic Cyst Fluid Cells</td>
<td>CE Aguilar, AL Morvira, H Gerdes, M Ladanyi, K Nafa, CS Sigel</td>
<td>Memorial Sloan-Kettering Cancer Center, New York</td>
</tr>
<tr>
<td>1:45</td>
<td>Robotic MicroRNA In-Situ Hybridization by Locked Nucleic Acid Probes with Advanced Controls</td>
<td>MB Yayaolguu, SD Liu, B Petryniak, AM Jub, N Ge, G Eichele, H Koeppen</td>
<td>Genentech Inc., South San Francisco, CA; Max Planck Institute of Biophysical Chemistry, Goettingen, Germany</td>
</tr>
<tr>
<td>2:00</td>
<td>Could Oligonucleotide Aptamer Probe Replace Antibody for Diagnosis?</td>
<td>Z Zeng, P Zhang, Y Zu</td>
<td>The Methodist Hospital, Houston, TX</td>
</tr>
<tr>
<td>2:15</td>
<td>Interobserver Variability in the Quantification of MIB-I Labeling Index on Cytologic Samples from Well Differentiated Neuroendocrine Tumors (WDNETs) of the Pancreas (P) and Gastrointestinal Tract (GIT): A Comparative Analysis of Three Methods</td>
<td>AD Fung, C Cohen, S Kavuri, X Gao, MD Reid</td>
<td>Emory University School of Medicine, Atlanta, GA; Georgia Health Sciences University, Augusta, GA</td>
</tr>
<tr>
<td>2:30</td>
<td>Ultra-Rapid Diagnostic Tissue Preparation as an Alternative to Frozen Section</td>
<td>V Stojan, C Blieser, M Garcia, SE Vernon, AR Morales</td>
<td>University of Miami Miller School of Medicine, Miami, FL; Jackson Memorial Hospital, Miami, FL</td>
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<td>2:45</td>
<td>RECESS, EXHIBITS, POSTER SESSION IV</td>
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### PROFFERED PAPERS

**Tuesday, March 20, 2012**

**1:00 - 2:45 PM**

**CC 205-207**

**Section F - Neuropathology**

**Chaired by: Murat Gokden and Craig Horbinski**

<table>
<thead>
<tr>
<th>Time</th>
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<th>Institutions</th>
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<tbody>
<tr>
<td>1:00</td>
<td>Molecular Genetic and Clinical Characteristics of Glioblastoma with Oligodendroglial Component (GBM-O)</td>
<td>CL Appin, CS Chisolm, C Vincentelli, C Hao, SB Hunter, DJ Brat</td>
<td>Emory University School of Medicine, Atlanta, GA</td>
</tr>
<tr>
<td>1:15</td>
<td>Pomer Field Methylation-Associated Loss of ID4 Expression Have a Prognostic Relevance in Glioblastoma Multiforme (1802)</td>
<td>M Martini, T Cenci, N Montano, V Cesarini, R Pullini, LM Laroce</td>
<td>Università Cattolica del Sacro Cuore, Rome, Italy</td>
</tr>
<tr>
<td>1:30</td>
<td>Morphologic Correlates of the Alternative Lengthening of Telomeres (ALT) Phenotype in High Grade Astrocytomas (1805)</td>
<td>DN Nguyen, CM Heaphy, RF de Wilde, B Orr, CG Eberhart, AK Meeker, FJ Rodriguez</td>
<td>Johns Hopkins Medical Institutions, Baltimore, MD</td>
</tr>
<tr>
<td>1:45</td>
<td>Low Rate of IDH1 R132H Mutation in Adult Non-Supratentorial Low and Intermediate Grade Diffuse Gliomas (1789)</td>
<td>B Ellezam, L Heathcock, GN Fuller, JM Bruner, KD Aldape</td>
<td>University of Texas MD Anderson Cancer Center, Houston, TX</td>
</tr>
<tr>
<td>2:00</td>
<td>Gene Expression Profiling on Matched Neurofibroma/MPNST Pairs (1821)</td>
<td>T Stricker, K Henriksen, A Montag, T Krausz, P Pytel</td>
<td>University of Chicago, Chicago, IL</td>
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</table>

### BUSINESS MEETING - CC Ballroom A-D

**4:20** AWARD PRESENTATIONS

- Stowell-Orbison, Autopsy, Surgical Pathology, Castleman and Vogel Awards
- Distinguished Pathologist Award - Steven G. Silverberg, MD
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- President’s Award - Robin A. Cooke, MB, BS, MD
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- Ramzi Cotran Young Investigator Award - Cristina Antonescu, MD

**5:00** MAUDE ABBOTT LECTURE - Robert J. Kurman, MD


**6:00** USCAP FOUNDATION BENEFIT RECEPTION - CC Ballroom Pre-Function Area
Pilocytic Astrocytomas with Infiltrating Patterns of Growth Carry a High Rate of BRAF V600E Mutation (1797)
Cedars-Sinai Medical Center, Los Angeles, CA

SOX2 Immunoexpression in High-Grade Gliomas: Potential Marker for Targeted Therapy (1779)
G Aggarwal, S Sharma
Medical College of Georgia, Georgia Health Sciences University, Augusta, GA

RECESS, EXHIBITS, POSTER SESSION IV

PROFFERED PAPERS
Tuesday, March 20, 2012
1:00 - 2:45 PM
CC 223-224

Section G - Hematopathology
Chaired by: Scott Rodig and David Viswanatha

Analysis of IGVH Gene Rearrangements in a Chronic Lymphocytic Leukemia Cohort from a Large US Reference Laboratory (1573)
CN Thompson, P Szankasi, DW Bahler, TW Kelley
University of Utah, Salt Lake City, UT; ARUP Laboratories, Salt Lake City, UT

Characterization of the Non-Coding IGH J-Regions in Follicular Lymphoma and Chronic Lymphocytic Leukemia (1558)
JM Spence, WR Burack
University of Rochester School of Medicine and Dentistry, Rochester, NY

Decreased Hematopoiesis in miR29ab1 Deficient Mice (1346)
R Aboomar, S Saridakis, R Santhanam, JR O’Rourke, F Racke, R Garzon, EN Olson, CM Croce, S Costinean
The Ohio State University, Columbus; University of Texas Southwestern Medical Center, Dallas

Comparison of High-Throughput Molecular Profiling Platforms for Rapid Mutational Analysis of Myeloid Neoplasms (1582)
The University of Texas M.D. Anderson Cancer Center, Houston, TX

Detection of High-Frequency and Novel DNMT3A Mutations in Acute Myeloid Leukemia by High Resolution Melting Curve Analysis (1549)
University of Texas MD Anderson Cancer Center, Houston, TX

Methylation of microRNA Promoters in Myelodysplastic Syndromes (1396)
B Erdogan, D Peng, L Han, Z Zhao, W El-Rifai, AS Kim
Vanderbilt University Medical Center, Nashville, TN; Stanford University, Palo Alto, CA

Epigenetic Mechanisms Underlying the Pathogenesis of Myelodysplastic Syndrome (MDS) and Chronic Myelomonocytic Leukemia (CMML) (1382)
JX Cheng, J Anastasi, JQ Shen, K Watanabe, E Grimley, E Kleinbrink, R Knibbs, D Roulston, JW Vardiman
University of Michigan, Ann Arbor, MI; University of Chicago, Chicago, IL; University of Nevada, Las Vegas, NV

A Comparison of Targeted Next Generation Sequencing from Paired Formalin-Fixed and Fresh Frozen Specimens (1905)
DH Spencer, E Duncavage, RD Mitra, S Kulkarni, K Seibert, R Nagarajan, MA Watson, JD Pfeifer
Washington University, St. Louis, MO

Alignment in a SNAP: Cancer Diagnosis in the Genomic Age (1912)
M Zaharia, B Bolosky, K Curtis, D Patterson, A Fox, D Patterson, S Shenker, I Stoica, T Sittler
UCSF, San Francisco, CA; UC Berkeley, Berkeley, CA; Microsoft, Redmond, WA

AWARD PRESENTATIONS
Stowell-Orbison, Autopsy, Surgical Pathology, Castleman and Vogel Awards
Distinguished Pathologist Award - Steven G. Silverberg, MD
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MAUDE ABBOTT LECTURE - Robert J. Kurman, MD

USCAP FOUNDATION BENEFIT RECEPTION - CC Ballroom Pre-Function Area
1:30 Identifying Cancer Mutations in Neuroendocrine Prostate Cancer through Massively Parallel DNA-Sequencing of Formalin-Fixed Paraffin Embedded Tissue (1890)
H Beltran, K Park, TY MacDonald, R Yelensky, G Frampton, D Lipson, PJ Stephens, MT Cronin, ST Tagawa, DM Nanus, JM Mosquera, MA Rubin
Weill Medical College of Cornell University, New York, NY; Foundation Medicine, Cambridge, MA

1:45 Chromosome Complexity Is Associated with Age and Metastasis in Synovial Sarcomas: Validation of Expression and Genomic Prognostic Significances (1890)
P Lagarde, J Przybyl, C Brudal, A Italiano, D Orbach, B Bui, P Terrier, R Sciot, M Debievre-Rycher, J-M Coindre, F Chibon Bergonie Institute, Bordeaux, France; INSERM U916, Bordeaux, France; Curie Institute, Paris, France; IGR, Villejuif, France; Catholic University and University Hospitals, Leuven, Belgium

PROFFERED PAPERS
Tuesday, March 20, 2012
2:00 - 2:45 PM
CC 217-219
Section H2 - Cardiovascular
Chaired by: Rene Rodriguez and Joseph Maleszewski

2:00 High Correlation between Molecular Sequencing and Histopathological Examination of Parallel Samples in Culture-Negative Endocarditis (315)
AMB Collie, NK Shrestha, GS Hall, ER Rodriguez, CD Tan
Cleveland Clinic, Cleveland, OH

2:15 Cardiac Allograft Outcomes: A Retrospective Study Correlating DSA, Endomyocardial Biopsy and Immunofluorescence (316)
R Frank, G Wertheim, M Kamoun, P Lal
Hospital of the University of Pennsylvania, Philadelphia; Children’s Hospital of Philadelphia, Philadelphia

2:30 IgG4-Positive Plasma Cells in Ascending Aortitis: Are They Diagnostic for IgG4-Related Aortitis/Periaortitis? (324)
K Notohara, DV Miller
Kurashiki Central Hospital, Kurashiki, Japan; Intermountain Medical Center & University of Utah, Murray, UT

2:45 RECESS, EXHIBITS, POSTER SESSION IV

POSTER SESSION IV
Tuesday, March 20, 2012
1:00 - 4:30 PM
CC Exhibit Hall B3 & C

Poster numbers to the left of the abstract title correspond to the board number where the poster will be displayed. The number in parentheses after the title is the abstract number in the Abstract Book. These posters will be on display this afternoon only.

BREAST

Board Number

1 Clinical Outcome in Pleomorphic Lobular Carcinoma (220)
S Narendra, SM Jenkins, RG Gamez, A Nassar
Mayo Clinic, Rochester, MN

2 Local Recurrence of Breast Cancer in Patients with DCIS Depending of the Margin Assessment (119)
E Colon, J Carlson
Karolinska University Hospital, Stockholm, Sweden

Pure Mucinous Carcinoma in Women 40 Years Old or Younger: Clinico-Pathological and Follow-Up Study (270)
EA Slodkowska, AD Corben, J Catalan, E Brogi
Memorial Sloan Kettering Cancer Center, New York, NY

Neuroendocrine Carcinoma (NEC) of the Breast – Clinico-pathological Study of 90 NEC Cases in Conjunction with 1505 Non-NEC Cases (178)
T Kawasaki, K Mochizuki, T Kondo, H Yamauchi, S Inoue, M Inoue, N Oishi, T Yamane, T Nakazawa, D Niu, H Yagata, H Tsumoda, H Onishi, H Fujii, R Katoh
University of Yamanashi, Yamanashi, Japan; St. Luke’s International Hospital, Tokyo, Japan

Intracystic Papillary Carcinoma (IPC) of the Breast: A Clinico-pathological Study of 125 Cases (88)
I Alvarado-Cabrero, R Valencia-Cedillo, S Barroso-Bravo
Mexican Oncology Hospital, IMSS, Mexico, DF, Mexico

Can Tumor Cellularity Predict Outcomes in Primary Non-Treated Breast Carcinoma? (243)
ES Reisenbichler, O Hameed
Brigham and Women’s Hospital, Boston, MA; Vanderbilt University, Nashville, TN

Dietary Stearate Is an Effective Complementary Agent to Paclitaxel in Reducing the Incidence and Tumor Burden of Breast Cancer Lung Metastasis (163)
RW Hardy, G Rezonozew, X Zhao, R Desmond, GP Siegel
University of Alabama at Birmingham, Birmingham, AL

Invasive Lobular Carcinoma and Oncotype Dx®: Impact of Pathology and Recurrence Score on Treatment Plan (255)
DS Ross, LC Galman, J Catalan, IK Tan
Memorial Sloan-Kettering Cancer Center, New York

Breast Pathology Second Review Identifies Clinically Significant Discrepancies in 10% of Cases (179)
L Khazai, LP Middleton, N Goktepe, BT Liu, AA Sahin
MD Anderson Cancer Center, Houston, TX

Outcomes Study of Atypical Ductal Hyperplasia and Ductal Carcinoma In Situ Treated with Excision (240)
J Qian, A Rizki, J Chong, J Richey, J Ticar, L Shan, M Idowu
Virginia Commonwealth University, Richmond, VA

Do Combined Histopathological Features of ER Positive Breast Carcinoma Correlate with OncotypeDx Recurrence Score? (138)
S Ehdavand, RA Simon, C Zhang, MR Quddus, JJ Ou, J Xiong, K Hansen, MM Lomme, W Shen, MM Steinhoff, WD Lawrence, CI Sung
Brown University/Women & Infants Hospital, Providence, RI

Progesterone Receptor and Ki-67 Immunohistochemistry Predict OncotypeDx® Recurrence Score in Lymph Node Negative and Positive Breast Cancers (271)
LS Spruijl, JR McEvoy
Medical University of South Carolina, Charleston, SC; Roper St. Francis Healthcare, Charleston, SC

Can GP88 Expression Serve as an Additional Surrogate Marker for Oncotype DX Recurrence Score? (183)
M Koka, LB Goicochea, G Serrero, K Tkaczuk, B Yue, K Tuttle, OB Ioffe
University of Maryland School of Medicine, Baltimore, MD; University of Maryland Greenebaum Cancer Center, Baltimore, MD; A&G Pharmaceutical Inc., Columbia, MD
14 The University of Kentucky Model for Selecting Breast Cancer Patients for Oncotype DX Testing (153)
S Frame, M Burge, N Miller, Y Brill, R Matnani, P McGrath, M-L Fjallskog, LM Samayoa
University of Kentucky, Lexington, KY; VAMC, Lexington, KY; Uppsala University, Uppsala, Sweden

15 Patterns of Oncotype DX Recurrence Scores – Analysis Based on Levels of ER & PR Expression and Proliferation Markers (102)
M Burge, S Frame, P McGrath, E Romond, M-L Fjallskog, C Ahlin, M Cibull, Y Brill, LM Samayoa
University of Kentucky, Lexington, KY; Uppsala University, Uppsala, Sweden

ENDOCRINE

16 Risk Stratification of Follicular Variant of Papillary Thyroid Carcinoma (624)
M Vivero, S Kraft, JA Barletta
Brigham and Women’s Hospital, Boston, MA; Massachusetts General Hospital, Boston, MA

17 microRNA Expression Array Identifies Novel Diagnostic Markers for Conventional and Oncocytic Follicular Thyroid Carcinomas (589)
M Dettmer, MB Durso, P Komminoth, H Moch, A Perren, YE Nikiforov, MN Nikiforova
University of Pittsburgh, Pittsburgh; Triemlispital, Zurich, Switzerland; University Hospital, Zurich, Switzerland; University of Bern, Bern, Switzerland

18 Expression of Epithelial-Mesenchymal Transition Regulators Slug and Twist in Thyroid Carcinomas (586)
D Buehler, H Hardin, W Shan, W Rehrauer, H Chen, RV Lloyd
University of Wisconsin School of Medicine and Public Health, Madison, WI

19 Rate of Extrathyroidal Extension and Lymph Node Metastases in Papillary Thyroid Carcinoma with Tall Cell Features (618)
P Rosenblum Donath, S Kraft, JA Barletta
Brigham and Women’s Hospital, Boston, MA; Massachusetts General Hospital, Boston, MA

20 Papillary Thyroid Microcarcinoma: Clinicopathological Correlation with BRAF V600E Mutation (623)
RK Virk, A Finkelstein, A Prasad, P Hui, T Carling, SA Roman, JA Sosa, R Udelsman, M Prasad
Yale School of Medicine, New Haven, CT; New York University, New York, NY; Hartford Hospital, Hartford, CT

21 Less Tumor Distance to Thyroid Pseudo Capsule Is Associated with Local Recurrence and Distant Metastases of Microscopic Papillary Carcinoma (592)
V Vessels  (601)
A Gamboa-Dominguez, B Camacho-Dominguez, M Chapainte Previmiento, C Gonzalez-Previmiento
Instituto Nacional de Ciencias Medicas y Nutricion SZ, Mexico City, DF, Mexico

22 Histopathologic Characteristics of Thyroid Tumors Positive for BRAF V600E Mutation (613)
W Nugent, C Coyne, MN Nikiforova, YE Nikiforov
University of Pittsburgh, Pittsburgh, PA

23 Validation of BRAF V600E Mutation Using Qiagen Rotor-Gene Analysis System (628)
R Zreik, E Castro-Echeverry, C Chisholm, D Smith, J Gildon, S Walker, K Walker, L Sayage-Rabie, A Rao
Scott & White Memorial Hospital, Temple, TX

24 Follicular Variant of Papillary Thyroid Carcinoma (FVPTC): Histological Features, BRAF Mutation, and Lymph Node Metastasis (585)
S Bose, SK Mohanty, C Singh, A Riley-Portuges, W Sacks, AE Waltz
Cedars-Sinai Medical Center, Los Angeles, CA; University of Minnesota, Minneapolis, MN

25 Accuracy and Reproducibility of Histologic Features Predictive of BRAF V600E Mutation in Papillary Thyroid Carcinoma (622)
RK Virk, A Finkelstein, A Prasad, P Hui, D Chhieng, C Theoharis, J Gibson, S Roman, M Prasad
Yale School of Medicine, New Haven, CT; New York University, New York, NY; Hartford Hospital, Hartford, CT

26 Thyroid Rests or Malignancy: Can BRAF Mutation Analysis Help in the Differential Diagnosis? (583)
A Best, C Chisholm, D Smith, MK Lopez, K Walker, RS Beissner, A Rao
Scott & White Memorial Hospital and Texas A&M Health Science Center College of Medicine, Temple, TX

27 The Changing Panorama of Thyroid FNA; Is Change Good? (620)
VJ Schnadig, MK Kathuria
University of Texas Medical Branch, Galveston, TX

28 Molecular Features of Follicular Variant Papillary Carcinoma of Thyroid: Comparison of Areas with or without Classical Nuclear Features (597)
G Guney, G Guler Tezel, K Kosmehmetoglu, E Yilmaz, R Ersoy, B Cakir, G Guler
Yildirim Beyazit University Ankara Ataturk Research and Education Hospital, Ankara, Turkey; Hacettepe University, Ankara, Turkey

29 Tall Cell Variant of Papillary thyroid Carcinoma – How Many Tall Cells Are Needed? (590)
MS Dettmer, A Schmitt, H Steinert, H Moch, P Komminoth, A Perren
University of Pittsburgh, Pittsburgh, PA; University of Bern, Bern, Switzerland; University Hospital Zurich, Zurich, Switzerland; Triemlispital, Zurich, Zurich, Switzerland

30 Clinico-Pathological and Molecular Characteristics of Tall Cell Variant of Papillary Thyroid Microcarcinoma (582)
A Best, J Bernstein, R Virk, WH Westra, G Tallini, P Hui, R Udelsman, CT Sasaki, S Roman, JA Sosa, ML Prasad
Yale School of Medicine, New Haven, CT; Johns Hopkins School of Medicine, Baltimore, MD; Bologna University School of Medicine, Bologna, Italy

31 The Definition of “Sizable” Blood Vessel as a Histologic Clue of Extrathyroidal Tumor Extension Can Be Clarified by Morphometric Analysis of Intra- and Extrathyroidal Blood Vessels (601)
HM Jeon, B Lim, SW Hong
Yonsei University College of Medicine, Gangnam Severance Hospital, Seoul, Republic of Korea

32 Cribriform Morular Variant of Papillary Thyroid Carcinoma: Morphological Characteristics of an Unusual Tumor That Distinguish the Inherited and Sporadic Subtypes (608)
CM Kovacs, V Nose
University of Miami, Miami, FL; Jackson Memorial Hospital, Miami, FL
33 Micro-RNA Target Identification, Expression and Immunophenotype Analysis: Possible Role for TRDRT1 in the Pathogenesis of Papillary Thyroid Carcinoma (617)  
A Rangel Filho, V Nose  
University of Miami, Miami, FL

34 The Prognostic Relevance of Nuclear Factor-κB Activation in Papillary Thyroid Carcinoma (616)  
J-S Pyo, G Kang, D-H Kim, SW Chae, JH Sohn  
Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine, Seoul, Korea

35 Amyloid Deposition in Papillary Thyroid Carcinoma: An Overlooked Event? (615)  
A Pinto, V Nose  
University of Miami / Jackson Health System, Miami, FL

36 IQGAP1 Copy Number in Follicular-Patterned Lesions of the Thyroid – A Pilot Study (627)  
AE Wals, A Riley-Portuges, S Bose  
Cedars-Sinai Medical Center, Los Angeles, CA

37 Aberrant Expression of the Runx Family Genes in Thyroid Carcinomas (605)  
T Kondo, D Niu, T Nakazawa, T Kawasaki, N Oishi, K Mochizuki, T Yamane, R Katoh  
University of Yamanshi, Yamanshi, Japan

38 Primary Benign Parathyroid Proliferative Lesions: Growth Factor Pathways and Stromal Interaction Responsible of the Growth Patterns (610)  
R Lam, A Blanes, SJ Diaz-Cano  
King’s College Hospital, London, United Kingdom; University of Malaga School of Medicine, Malaga, Spain

39 Identification of New Target Proteins in Parathyroid Carcinomas (611)  
O Mete, B Erovec, J Irish, SL Asa  
University Health Network, Toronto, ON, Canada

40 Use of a 92-Gene Molecular Classifier To Predict the Site of Origin for Primary and Metastatic Tumors with Neuroendocrine Differentiation (604)  
SE Kerr, CA Schnabel, PS Sullivan, Y Zhang, V Singh, B Carey, MG Erlander, WE Highsmith, EF Brachtel, SM Dry  
Mayo Clinic, Rochester, MN; bioTheranostics, Inc., San Diego, CA; University of California at Los Angeles, Los Angeles, CA; Massachusetts General Hospital, Boston, MA

41 Proposal for a Simplified Mib1 Assessment in Pancreatic Endocrine Tumors (584)  
A Blank, L Boos, I Zlobec, P Komminoth, A Perren, AM Schmitt  
University of Bern, Bern, Switzerland; Technical University Munich, Munich, Germany; City Hospital Triemli, Zurich, Switzerland

42 Endocrine Tumors Display Site-Specific Alterations in Wnt Signaling, the mTORM Pathway, and Chromatin Remodeling (596)  
PS Ginter, NC Panarelli, RK Yantiss, T Scognamiglio, Y-T Chen  
Weill Cornell Medical College, New York

43 An Analysis of Protein Expressions of Pancreatic Neuroendocrine Tumors of Japanese Patients According to 2010 WHO Classification (603)  
A Kasajima, K Ishida, F Fujishima, F Motoi, H Ootsuka, Y Nakamura, M Watanabe, M Unno, H Saxano  
Tohoku University Hospital, Sendai, Japan

44 Immunohistochemical Detection of Somatostatin Receptor 2a (SSTR2a) and mTOR in the Cases of Neuroendocrine Tumors (NETs) for Appropriate Biotherapy; Experience of a Large Series of Referred Cases (614)  
RY Osamura, M Matsuda, T Itoh, C Inomoto, H Kajiwara  
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45 The Role of MicroRNA Expression in the Diagnosis of Adrenocortical Carcinomas. A Marker of Poor Prognostic Tumors (626)  
BA Walter, S Barak, A Fojo, MJ Merino  
NCI, NIH, Bethesda

46 Cytoplasmic Staining of OCT4 in Pheochromocytoma Is Highly Sensitive and Specific: A Novel Immunohistochemical Finding (579)  
RE Alexander, DJ Grignon, MT Idrees  
Indiana University School of Medicine, Indianapolis, IN

47 ACTH-Independent Multinodular Adrenal Hyperplasia with Dominant Nodule: Expression Profile Support a Neoplastic-Like and Non-Functional Presentation (595)  
E Garratt, A Blanes, SJ Diaz-Cano  
Barts and The London Hospitals, London, United Kingdom; University of Malaga School of Medicine, Malaga, Spain; King’s College Hospital, London, United Kingdom

48 Evaluation of ScreenCell® Devices for the Detection of Circulating Tumor Cells in Adrenocortical Carcinoma (619)  
C Scatena, F Salvianti, P Pinzani, M Luconi, M Mannelli, D Massi, G Nesi  
University of Florence, Florence, Italy

49 Are Adrenal Lesions Part of the Hereditary Leiomyomatosis and Renal Cell Carcinoma Syndrome (HLRCC)? (621)  
B Shuch, M Linehan, MJ Merino  
NCI, Bethesda, MD

50 Large Adrenal Cortical Adenomas with Extensive Myelolipomatous Metaplasia: Uprogulation of Jak-Stat Pathway and Solitary Fibrous Type Stromal Reaction (594)  
E Garratt, A Blanes, SJ Diaz-Cano  
Barts and The London Hospitals, London, United Kingdom; University of Malaga School of Medicine, Malaga, Spain; King’s College Hospital, London, United Kingdom

51 Cell Cycle Regulators in Pheochromocytomas (PCTs) and Paragangliomas (PGLs) and Correlation with SDHx Status and FGFR4 Genotype (587)  
CA Cassol, SL Asa  
University Health Network, Toronto, ON, Canada

52 Image Cytometric HER2 in Gastric Carcinoma – Is a New Algorithm Needed? (663)  
B Feiger, C Ormenisan, D Lawson, J Wang, C Cohen  
Emory University, Atlanta, GA

53 Concordance and Interobserver Agreement of HercepTest™ and 4B5 Immunohistochemical Staining in Gastric Carcinoma (762)  
ML Wallander, ME Salama, SL Perkins, LJ Lasfield  
ARUP Institute for Clinical & Experimental Pathology, Salt Lake City; University of Utah, Salt Lake City
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G Deftereos, U Krishnamurti, P Storto, JF Silverman, ML Bunker
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Method of Measurement of Invasion Depth and Scoring System To Predict LN Metastasis in Submucosal EGC (684)
Jy Kim, N Shin, GY Lauwers, Dy Park
Pusan National University Hospital and Pusan National University School of Medicine, Busan, Republic of Korea; Massachusetts General Hospital and Harvard Medical School, Boston

Significant Operator Dependent Grossing Differences in Lymph Node Sampling from Esophageal Cancer Resections (650)
E Carneal, T Morgan, J Dolan, J Hunter, K Gatter
Oregon Health and Science University, Portland, OR

Magnification Endoscopic and Histologic Observations of Palisade Vessels at the Esophagogastric Junction, with Reference to Their Nature and Histologic Utility (632)
Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan; Tokyo Metropolitan Cancer and Infectious Diseases Center, Komagome Hospital, Tokyo, Japan; Klinikum Bayreuth, Bayreuth, Germany; Saitama Medical Center, Saitama Medical University, Kawagoe, Japan; Tokyo Metropolitan Geriatric Hospital, Tokyo, Japan; Japanese Red Cross Medical Center, Tokyo, Japan

Carcinomas in the Distal Esophagus of Chinese Patients Are Heterogeneous in Histopathology but Adenocarcinoma Remains Rare (675)
Q Huang, GY Lauwers, J Shi, Q Sun, X Fan, A Feng, H Wu, CY, Q Zhou, H Mashimo
Nanjing Drum Tower Hospital, Nanjing, China; VA Boston Healthcare System, West Roxbury; Massachusetts General Hospital, Boston

HER2 Protein Overexpression in Gastric Adenocarcinoma: The Relationship between Its Histological and Immunohistochemical Profiles in a Japanese Population (714)
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Gastric Biopsies Are Appropriate for Assessment of HER2: A Correlation Study with Resection Specimens (667)
A Grin, ET Hsieh, C Brezden-Masley, CJ Streutker
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Paneth Cell in Colorectal Adenoma and Sessile Serrated Polyp: A Comparative Study (705)
X Liu
Cleveland Clinic, Cleveland

Morphologic Subtypes of Dysplastic Colonic Polyps with Emphasis on Those with Clear Cell Change (748)
M Stachler, RD Odze
Brigham and Women’s Hospital, Boston

Characterization of Adenocarcinomas Arising in Sessile Serrated Polyps/Adenomas (637)
KS Aulakh, RM Genta, RH Lash
University of Arkansas for Medical Sciences, Little Rock, AR; Caris Life Sciences, Irving, TX

Pathological Correlates of Microsatellite Instability in Ulcerative Colitis-Associated Colorectal Carcinoma (686)
H-BM Ko, N Harpaz
Mount Sinai School of Medicine, New York

Benign Fibroblastic Polyps (Mucosal Perineuriomas) Harbor BRAF Mutations, but Not in the Stromal Component: A Laser Capture Microdissection Study (725)
JR Pettus, JA Lefferts, S Schulte, D Jain, RD Odze, A Srivastava
Dartmouth-Hitchcock Medical Center, Lebanon, NH; Yale University School of Medicine, New Haven, CT; Brigham & Women’s Hospital, Boston, MA

Simple Algorithm for the Prediction of Low-Level Microsatellite Instability (MSI-L) in Colorectal Cancer (778)
I Zlobec, MP Bihl, A Lugli
Institute of Pathology, University of Bern, Bern, Switzerland; Institute of Pathology, University Hospital of Basel, Basel, Switzerland

Immunohistochemical Screening for Mismatch Repair Protein Deficiency in Colorectal Cancer – MLH1and MSH2 Stains Are Contributory in 10% of Cases with Equivocal or Deficient Protein Staining (653)
S Deasy, P Ryan
Bon Secours Hospital, Cork, Ireland

A KRAS Mutation Profile in Colorectal Carcinomas: Mutation Detection Technique May Affect Patient Selection for Anti-EGFR Therapy (642)
H Baloglu, I Yilmaz, Z Kucukodaci
GATA-HEH, Istanbul, Turkey

Immunohistochemical Staining of Rectal Neuroendocrine Tumors Overlaps with Pancreatic Neuroendocrine Tumors (688)
J Koo, E Moschiano, R Mertens, D Dhall
Cedars-Sinai Medical Center, Los Angeles, CA

Serrated Polyps in Patients with Inflammatory Bowel Disease (693)
LH Lee, C Andrews, S Urbanski
University of Calgary, Calgary, AB, Canada

Concomitant Presence of PIK3CA Mutations in Both Exons 9 and 20 Predicts Aggressive Behavior of Colorectal Cancer (720)
S Ogino, X Liao, T Morikawa, C Fuchs
Brigham and Women’s Hospital, Boston; Dana-Farber Cancer Institute, Boston

Tumor Budding Score Based on 10 High-Power Fields (HPFs) Is a Reliable and Reproducible Scoring System in Colorectal Cancer (707)
A Lugli, A Kondi-Pafiti, V Koelzer, I Zlobec, E Karamitopoulou Diamantis
Clinical Pathology Division, Bern, Switzerland; Department of Pathology, Athens, Greece
73  Assessment of MLH1 Promoter Methylation and BRAF Gene Mutation in Colorectal Carcinomas with Microsatellite Instability (664)  R Gafa’, L Ulazzi, I Maestri, R Mazzoni, F Mora, E Magri, G Lanza
Section of Anatomic Pathology, Ferrara, Italy

74  MACC1, a Potential Diagnostic Marker for Early Stage Colorectal Cancer (732)  B Ren, V Zakharov, C Ryan, L McMahon, Q Yang, W Cao
University of Rochester Medical Center, Rochester, NY

75  Use of Elastic Stain in Identification of Venous Invasion in Polypos with Early Invasive Adenocarcinoma (pT1) (756)  A Trivedi, S Ligato
Hartford Hospital, Hartford, CT

76  Dachshund Homolog 1 Is Associated with Colorectal Carcinogenesis (744)  Q Shi, G Guzman, V Macias, K Wu, H Xie, R Patel, A Shah, A Kajidacy-Balla, W Yang
University of Illinois at Chicago, Chicago, IL

77  Utility of Sites Serrated Adenoma as a Marker of Metachronous Colorectal Carcinoma (712)  M Mohammadi, M Carstensen, MH Kristensen, HJ Nielsen, S Holck
Hospital South, Naestved, Denmark; Hvidovre Hospital, Hvidovre, Denmark

78  Intra-Tumoral Budding in Pre-Operative Biopsy Specimens Predicts Lymph Node and Distant Metastasis in Patients with Colorectal Cancer (665)  OT Giger, S Comtesse, A Lugli, I Zlobec, M Kurrer
University of Berne, Berne, Switzerland; Cantonal Hospital Winterthur, Winterthur, Switzerland; Pathologie Institut Enge, Zurich, Switzerland

79  CD44 Full-Thickness Immunoreactivity Is More Sensitive Than CK5/6 for the Diagnosis of Flat Urothelial Lesions with Atypia (1071)  W Yu, SA Umar, S Yasir, M Jorda
University of Miami Miller School of Medicine, Jackson Memorial Hospital, Sylvester Comprehensive Cancer Center, Miami, FL

80  MAGE-A Expression Is Associated with Features of Biologically Aggressive Urothelial Carcinoma of the Bladder (911)  F Khani, EK Cha, B Volkmer, M Rink, YT Chen, DS Scherr, MA Rubin, JM Mosquera, RE Hautmann, K Kuefer, SF Shariat, BD Robinson
Weill Cornell Medical College, New York; Klinikum Kassel, Kassel, Germany; Hospital Ulm, Ulm, Germany

81  The Immunohistochemical Profile of the Plasmacytoid Variant of Urothelial Carcinoma: A Study of 11 Cases (903)  C-S Kao, M Idriss, L Cheng, DJ Grignon
Indiana University, Indianapolis, IN

82  The Role of Immunohistochemistry (IHC) in the Differential Diagnosis of Invasive Plasmacytoid Urothelial Carcinoma (PUC) and Its Mimics (833)  KL Dishongh, JK McKenney, AR Sangoi, N Gokden
University of Arkansas for Medical Sciences, Little Rock, AR; Stanford University School of Medicine, Stanford, CA; El Camino Hospital, Mountain View, CA

83  GATA3, p63 and S100P: An IHC Comparison Analysis in Bladder Cancer (1023)  D Tacha, R Bremer, C Yu, L Chen
Biocare Medical, Concord, CA; Indiana University School of Medicine, Indianapolis, IN

84  Utility of Gata3 in the Diagnosis of Urothelial Carcinoma (815)  A Chang, A Amin, P Illei, E Gabrielson, JI Epstein
The Johns Hopkins Hospital, Baltimore

85  GATA3 Is Down-Regulated in Bladder Cancer yet Strong Expression Is an Independent Predictor of Poor Prognosis in Invasive Tumor (954)  H Miyamoto, K Izumi, JL Yao, Q Yang, LA McMahon, N Gonzalez-Roibon, A Chaux, DG Hicks, GJ Netto, D Tacha
University of Rochester, Rochester, NY; Johns Hopkins Medical Institution, Baltimore, MD; Biocare Medical, Concord, CA

86  Potential Utility of GATA3 Immunoeexpression and HPV Status in the Differential Diagnosis of Urothelial vs Squamous Cell Carcinomas of Distal Penile Urethra (881)  JS Han, GJ Netto, S Lee, N Gonzalez-Roibon, H Ross, R Sharma, AL Cubilla, A Chaux
Johns Hopkins University, Baltimore, MD; Instituto de Patologia e Investigacion, Asuncion, Paraguay

87  Utility of Gata3 and Pax8 Immunohistochemistry in Diagnosing Sarcomatoid Urothelial Carcinoma (UC) and Sarcomatoid Renal Cell Carcinoma (RCC) (816)  A Chang, F Brimo, EA Montgomery, JI Epstein
The Johns Hopkins Hospital, Baltimore

88  Variability of Smoothelin Expression in Muscularis Propria of the Urinary Bladder: A Diagnostic Pitfall (1010)  UN Sheik, MI Zulfiqar, A Shahab, PJ Kowalski, H Qu
Saint John Hospital & Medical Center, Detroit, MI

89  Nephrogenic Adenoma Showing a Flat Pattern. Description of a New Histological Variant of a Rare Benign Lesion Using PAX-2 and PAX-8 Immunohistochemistry (983)  S Pina-Oviedo, JY Ro
The Methodist Hospital, Houston, TX

90  Expression of Novel Renal Tubular Associated Markers in Nephrogenic Adenoma (NA) of the Urothelial Tract: Potential Utility in Distinction from Its Malignant Mimics (957)  SK Mohanty, N Nese, M Amin, M Aron, R Parakh, R Gupta, P Zhang, D Luthringer, MB Amin
Cedars-Sinai Medical Center, Los Angeles, CA; Beaumont Medical Center, Royal Oak, MI

91  Decreased p63 Expression Is Common in Micropapillary Urothelial Carcinoma (MPUC) and High Grade Urothelial Carcinoma (HGUC) (1081)  B Zhu, X Lin, S Rohan, M Zhong, R Goyal, E Gersbach, X Yang
Northwestern University, Chicago

92  Expression of Syndecan-1 (CD138) in Bladder Cancer with Emphasis on Conventional Urothelial Carcinoma and Urothelial Carcinoma with Squamous Differentiation (978)  S Patel, AO Osunkoya, C Ormenisan, GM Oprea-Illes
Emory University, Atlanta, GA

93  Signet Ring Cell Adenocarcinoma of Urinary Bladder: Clinicopathologic Features of Patients Undergoing Radical Cystectomy (945)  SN Maximeni, SA Boorjian, I Frank, P Thapa, JC Cheville
Mayo Clinic, Rochester, MN; Mayo Clinic, Rochester, MN

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94  Micropapillary Urothelial Carcinoma: A Clinicopathological Study of the Experience of One Academic Center (1082)  

B Zhu, X Lin, S Rohan, M Zhong, R Goyal, E Gersbach, X Yang  
Northwestern University, Chicago

95  Clinicopathologic and Immunohistochemical Characteristics of Invasive Low Grade Urothelial Carcinoma (1051)  

KE Watts, DE Hansel  
Cleveland Clinic, Cleveland, OH

96  Expression of α-Methylacetyl-CoA Racemase (AMACR) in Urothelial Carcinoma In Situ (CIS): Comparative Utility with More Traditional Markers (CK20, CD44s, p53) in the Distinction of Urothelial CIS and Reactive Urothelial Atypia (789)  

M Aron, DJ Luthringer, JK McKenney, DE Hansel, DE Westfall, R Parkh, M Vankalakunti, SK Mohanty, BL Balzer, MB Amin  
Cedars-Sinai Medical Center, Los Angeles; Stanford School of Medicine, Stanford; Cleveland Clinic, Cleveland, OH

97  High Risk Human Papilloma Virus DNA Detected in Primary Squamous Cell Carcinoma of Urinary Bladder (817)  

University of Miami, Jackson Memorial Hospital, Sylvester Cancer Center, Miami, FL; University of Wisconsin School of Medicine, Madison, WI

98  Urothelial Carcinoma with Prominent Squamous Differentiation in the Setting of Neurogenic Bladder – Role of HPV Infection (805)  

EB Blochin, KJ Park, SK Tickoo, VE Reuter, H Al-Ahmadie  
Memorial Sloan-Kettering Cancer Center, New York, NY; Ackerman Academy of Dermatopathology, New York, NY

99  A Subset of Invasive Urothelial Carcinomas of the Renal Pelvis Show Immunoreactivity with the Monoclonal Anti-PAX8 Antibody (892)  

J Hughes, AR Sangoi, JK McKenney  
Stanford University, Stanford, CA; El Camino Hospital, Mountain View, CA

100  Immuno histochemical Profiles of Urothelial Carcinomas from Upper Urogenital Tract Versus Lower Tract. Does PAX8 Have Any Role? (1005)  

J Schwartz, R Malhotra, P Zhang, M Amin  
William Beaumont Hospital, Royal Oak, MI

101  Overexpression of the Soluble Epoxide Hydrolase in Human Prostate Adenocarcinoma with a Downregulation Following Androgen Deprivation Therapy (832)  

X Ding, J Liao, H Li, J Huang, G-Y Yang  
Northwestern University Feinberg School of Medicine, Chicago, IL; David Geffen School of Medicine at UCLA, Los Angeles, CA

102  Genome Expression Profiling of Holoclones Derived from Prostate Cancer (1001)  

Y Salley, M Gallagher, S Elbarouni, P Smyth, C Spillane, CM Martin, W Watson, OM Sheils, JJ O’Leary  
Trinity College Dublin, Dublin, Ireland; Conway Institute, University College Dublin, Dublin, Ireland

103  Acquired Mitochondrial DNA Mutations in Metastatic Prostatic Adenocarcinoma (981)  

JA Petros, RS Arnold, LD True, LW Chung, AO Osunkoya  
Emory University School of Medicine, Atlanta; Cedars-Sinai Medical Center, Los Angeles; University of Washington, Seattle

104  Neoadjuvant Docetaxel Treatment for Locally Advanced Prostate Cancer Affects miRNA Expression: A Pilot Study (842)  

SM Falzaro, M Zhou, P Carver, EA Klein, R Dreicer, C Magi-Galluzzi  
Cleveland Clinic, Cleveland, OH

105  Molecular Prognostic Markers of Prostate Cancer: An Immunohistochemical Study on TMA Blocks from 428 Radical Prostatectomy Specimens (901)  

WY Jung, JY Ro, YM Cho  
University of Ulsan College of Medicine, Asan Medical Center, Seoul, Korea; Cornell University, The Methodist Hospital, Houston, TX

106  Molecular Factors Showing Multivariate Significance for Outcome in a Conservatively Treated Prostate Cancer Biopsy Cohort (796)  

D Berney, G Fisher, ZH Yang, H Moller, S Kudaheth, C Foster, V Reuter, P Scardino, J Czuck  
Barts and the London School of Medicine, London, United Kingdom; Memorial Sloan-Kettering Cancer Center, New York; Kings College London, London, United Kingdom; University of Liverpool, Liverpool, United Kingdom

107  Molecular Characterization of Gleason Pattern 3 Prostate Cancer with Co-Existing Adjacent Gleason Pattern 4 Cancer (1015)  

AG Sowalsky, H Ye, SP Balk  
Beth Israel Deaconess Medical Center, Boston, MA

108  Matrix Metalloproteinase-14: A Novel Marker of Tumor Progression and Invasion in Prostate Cancer (897)  

G Javid, R Aljumaily, R Kaimal, S Sharifi, A Agarwal  
Tufts Medical Center, Boston, MA

109  Seminal Plasma Proteins in Prostate Cancer: Increased Semenogelin I Expression Is a Predictor of Biochemical Recurrence after Radical Prostatectomy (896)  

K Eumi, Y Li, Y Zheng, Q Yang, LA McMahon, J Gordetsky, JL Yao, H Miyamoto  
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110  C-Terminal Portion of Group 3 POTEs Antigen Correlates with Progression of Prostate Cancer (1076)  

X Zhou, Z He, S Redfield, K Brown, S Bigler  
University of Mississippi Medical Center, Jackson

111  Rearrangement of the ETS Genes ETV-1, ETV-4, ETV-5 and LK-1 Is a Clonal Event during Prostate Cancer Progression (809)  

M Braun, Z Shaikibrahim, P Nikolov, D Boehm, W Vogel, R Menon, V Scheble, F Fend, G Kristiansen, N Wernert, S Perner  
University Hospital of Bonn, Bonn, Germany; University Hospital of Tuebingen, Tuebingen, Germany

112  Mitosis Phase Enrichment with Identification of Mitotic Centromere-Associated Kinesin as a Therapeutic Target in Castration-Resistant Prostate Cancer (1012)  

K Sirca, H Huang, L Hu, Y Liu, J Dhillon, D Cogdell, A Aprikian, N Navone, P Troncoso, W Zhang  
MD Anderson Cancer Center, Houston, TX; UT Arlington, TX; McGill University, Montreal, QC, Canada
113 Concurrent AURKA and MYCN Amplification in Primary Prostate Adenocarcinoma Is Associated with the Development of Lethal Neuroendocrine Prostate Cancer (974)
K Park, H Beltran, TY MacDonald, ST Tagawa, DM Nanus, MA Rubin, JM Mosquera
Weill Medical College of Cornell University, New York, NY

114 Microvessel Density Is Not Increased in Prostate Cancer: Digital Imaging of Tissue Microarray and Routine Sections (787)
T Antic, D Binder, M Kocherginsky, C Liao, J Taxy, A Otto, M Tretiakova
University of Chicago, Chicago

115 Role of Frozen Section Analysis during Radical Prostatectomy: A 1,993-Case Experience (902)
Y Kakiuchi, J Gordetsky, H Miyamoto
University of Rochester, Rochester, NY

116 Incidental Prostate Pathology in Cytoprostatectomy Specimens: Is Partial Prostate Sampling Adequate? (848)
E Filter, MY Gabril, JA Gomez, P Wang, J Izawa, J Chin, M Moussa
London Health Sciences Centre, London, ON, Canada

117 Correlation between Laterality of Pelvic Lymph Node Metastases and Tumor Laterality in Biopsy and Prostatectomy Specimens from Patients Undergoing Extended Pelvic Lymph Node Dissection (ePLND) (1032)
P Troncoso, S Matin, KN Babalan, IN Prokhorova, JW Davis
The University of Texas MD Anderson Cancer Center, Houston, TX

118 Immature Metaplastic CIN1: A Variant with Intense P16 Staining and Low Proliferative Index (1226)
C Parr-Herran, B Lane, MS Hirsch, MR Nucci, CP Crum, M Herfs
Brigham and Women’s Hospital, Boston, MA

119 Stathmin, a Microtubule Destabilizing Protein, Is Overexpressed in Most High, but Not Low Grade, Cervical Squamous Intraepithelial Lesions (1160)
BE Howitt, MR Nucci, R Drapkin, CP Crum, MS Hirsch
Brigham & Women’s Hospital, Boston, MA

120 Expression of Stem Cell Marker ALDH1 in Cervical Intraepithelial Neoplasia (1143)
P Gong, J Palazzo
Thomas Jefferson University Hospital, Philadelphia, PA

121 The Stem Cell Associated Transcription Factor Sox2 as a Diagnostic Marker of Cervical Neoplasia (1148)
K Gwin, R Buell-Gutbrod, N Lee, E Lengyel, A Montag, MK Mirza
University of Chicago, Chicago, IL

122 P16/MIB-1 Immunoreactivity and HPV DNA Status in Tubal Metaplasia of Endocervical Epithelium: Is There Any Correlation? (1141)
JC Gomez-Gelvez, Z Zhang, M Raoufi, TE Buekers
Henry Ford Hospital, Detroit, MI

123 PAX8 Immunohistochemical (IHC) Expression in Endocervical Glandular Lesions (1111)
R Danialan, M Assaad, RW Cartun, S Mandavilli
Hartford Hospital/Clinical Laboratory Partners, Hartford, CT

124 The Desmoplastic Stromal Response as Defined by Positive a-Smooth Muscle Actin Staining Is Predictive of Invasion in Adenocarcinoma of the Uterine Cervix (1168)
SM Jordan, T Watanabe, K Osann, BJ Monk, F Lin, JK Rutgers
University of California, Irvine, Orange, CA; University of California, Irvine, Irvine, CA; Creighton University School of Medicine, Phoenix, AZ; Long Beach Memorial Medical Center, Long Beach, CA

125 Early Invasive Cervical Adenocarcinoma: Is Radical Treatment Indicated? (1102)
K Ceballos, K Onuma, J Hauspy, P Rubabaza, A Rajagopalan, D Shaw, D Daya
University of British Columbia, Vancouver, BC, Canada; St. Augustine Hospital, Antwerp, Belgium; McMaster University, Hamilton, ON, Canada; Halton Health Care Services, Oakville-Trafalgar Site, Oakville, ON, Canada

126 Mesonephric-Like Endometrioid Glandular Proliferations: A Morphologically Distinct Form of Metaplasia (1223)
LY Pan, FN Moore, TA Longacre
Stanford University, Stanford, CA

127 Papillary Proliferation of the Endometrium: A Clinicopathologic Study of 56 Cases (1163)
PP Ip, JA Irving, GW McCluggage, RH Young
University of Hong Kong, Queen Mary Hospital, Hksar, Hong Kong; Royal Jubilee Hospital, Victoria, BC, Canada; Belfast Health and Social Care Trust, Belfast, United Kingdom; Massachusetts General Hospital, Boston, MA

128 K-ras Mutations in Mucinous Lesions of Uterus (1155)
M He, CL Jackson, V Breese, MM Steinhoff, J Xiong, WD Lawrence
Brown University/Women Infants Hospital, Providence, RI; Brown University/Rhode Island Hospital, Providence, RI

129 Endometrial Biopsy Interpretation Using WHO 2004 and EIN Criteria: An Analysis of 77 Cases with Emphasis on Conservative Management (1158)
KK Hooper, PJ Stone, CM Quick
UAMS, Little Rock, AR

130 Secretory Endometrial Intraepithelial Neoplasia (SEIN) Arising in Secretory Endometrium: Histologic & Immunohistochemical Features of a Rare EIN Variant (1261)
W Winham, K Hooper, P Stone, C Quick
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282 Loss of PTEN Expression in Pancreatic Ductal
Adenocarcinoma Is Associated with Poor Survival (1845)
University of Texas, M.D. Anderson Cancer Center, Houston, TX

283 Ribonucleotide Reductase M2 Is Not Predictive of Adjuvant
Gemcitabine Treatment Benefit in Patients with Resected
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H Xie, J Lin, DG Thomas, W Jiang, X Liu
Cleveland Clinic, Cleveland; Indiana University, Indianapolis;
University of Michigan, Ann Arbor

284 Vascular Invasion In Infiltrating Ductal Adenocarcinoma of the
Pancreas Can Mimic Pancreatic Intraepithelial Neoplasia: A
Histopathologic Study of 209 Cases (1854)
S-M Hong, M Goggins, CL Wolfgang, RD Schullik, BH Edil, 
JL Cameron, A Handra-Luca, JM Herman, RH Hruban
Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; Johns Hopkins Medical Institutions, Baltimore, MD

285 Clinicopathologic Characteristics and Biologic Behavior of
Concurrent Pancreatic Ductal Adenocarcinoma (PDAC) (1861)
Massachusetts General Hospital, Boston, MA; Dana-Farber Cancer Institute, Boston, MA; Brigham and Women’s Hospital, Boston, MA; Indiana University, Indianapolis, IN

286 Diagnostic Accuracy of Endoscopic Ultrasound-Guided Fine-
Needle Aspiration in Patients with Pancreatic Adenocarcinoma
Using Histology as the Gold Standard (1852)
S Hebert-Magee, A Treece, F Mukhtar, I Eltom
University of Alabama at Birmingham, Birmingham, AL

287 Error Assessment of Cytopathologic Diagnosis of EUS-FNA
of Pancreatic Ductal Carcinoma (1853)
S Hebert-Magee, A Treece, M Eloubeidi, I Eltom
University of Alabama at Birmingham, Birmingham, AL

288 Downregulation of SMAD4 Is Significantly Associated with
Poor Prognosis of Pancreatic Cancer: A Clinicopathologic
Study of 643 Cases in a Single Cancer Center (1846)
W Foo, M Javle, Y Li, SP Kar, V Baladandayuthapani, X Dong, D Li, D Tan
University of Texas, M.D. Anderson Cancer Center, Houston, TX

289 Tumoral Epithelial and Stromal Expression of SMAD Proteins
in Pancreatic Ductal Adenocarcinomas (1850)
A Handra-Luca, P Hammel, A Sauvanet, P Ruszniewski, A Couvelard
APHP Avicenne Universite Paris 13 Nord Medecine, Bobigny, France, Metropolitan; APHP Beaujon Universite Paris 7, Clichy, France, Metropolitan; APHP Bichat Claude Bernard Universite Paris 7, Paris, France, Metropolitan

290 Undifferentiated Carcinomas of the Pancreas Are
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(1858)
A Krasinskas, AJ Moser, S Kavala, S Chiosea
University of Pittsburgh Medical Center, Pittsburgh

**PULMONARY**

291 ALK Rearrangements in Pancreatic Ductal Adenocarcinoma
and Neuroendocrine Tumors (1849)
RP Graham, AM Oliveira, I Zhang
Mayo Clinic, Rochester, MN

292 mTOR Expression in Pulmonary Neuroendocrine Tumors
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PA Toro, C Alenda, G Peiro, A Teruel, E Rojas, I Aranda
Hospital General de Alicante, Alicante, Comunidad Valenciana, Spain

293 Histone 1.5 (H1.5) Staining Directly Correlates with High
Grade in Pulmonary Neuroendocrine Tumors (2000)
H-BM Ko, JF Hechtman, Y Kinoshita, DE Burstein, MB Beasley
Mount Sinai School of Medicine, New York

294 PLZF Immunostaining Inversely Correlates with
Aggressiveness in Pulmonary Neuroendocrine Tumors (1991)
JF Hechtman, Y Kinoshita, MB Beasley, DE Burstein
Mount Sinai School of Medicine, New York, NY

295 PAX2, PAX5, and PAX8 Expression in Pulmonary
Neuroendocrine Tumors (1999)
S Kirby, W Frankel, W Marsh, F Junya, J Jen, T Franks, W Travis, K Shilo
The Ohio State University Medical Center, Columbus, OH;
Toyama University Hospital, Toyama, Japan; Mayo Clinic, Rochester, MN; JPC, Silver Spring, MD; Memorial Sloan-Kettering Cancer Center, New York, NY

296 Testing for 29 EGFR TKI Sensitivity and Resistance Mutations
in Lung Cancer Using EGFR RGQ PCR Kit (1976)
M Cankovic, I Whiteley, DA Chitale
Henry Ford Hospital, Detroit, MI

297 Highly Sensitive Real-Time PCR for the Detection of EGFR
Mutations in Lung Adenocarcinoma. Is It Worth It? (2034)
N Rodon, R Roman, M Verdu, B Garcia, M Pujol, X Paig
Biopatologia Molecular, SL, Grup Assistencia, Barcelona, Spain; Hospital de Barcelona, SCIAS, Grup Assistencia, Barcelona, Spain; Histopat Laboratoris, Barcelona, Spain

298 Absence of TTF-1 Immunoreactivity Can Predict EGFR Wild-
Type in Non-Small Cell Lung Cancer (NSCLC) (1974)
I Bosdet, SS Young, RH Ali, BK McNeil, C Wong, K Garbutt, A Karsan, DN Ionescu
BC Cancer Agency, Vancouver, BC, Canada

299 Establishing Quantitative Parameters in the Detection of
Somatic Mutations of the Epidermal Growth Factor Receptor
Gene in Cytology Samples of Non-Small Cell Lung
Carcinomas (1975)
E Brega, G Chong, V Cohen, J Agulnik, G Kasymjanova, M Palayev, B Xu, D Small, G Batist, A Spatz, G Brandao
Jewish General Hospital/McGill University, Montreal, QC, Canada

300 Cytology Samples Are Comparable to Histological Samples
for EGFR Mutation Testing in Non-Small Cell Lung Cancer
(NSCLC) (1973)
I Bosdet, RH Ali, S Young, A Karsan, DN Ionescu
BC Cancer Agency, Vancouver, BC, Canada
Molecular Testing for Lung Adenocarcinoma: Concordance between Cytology and Histology (1993)  
JJ Heymann, WA Bulman, RA Maxfield, CA Powell, B Halmos, M Stoopler, J Sonett, NT Beaubier, AM Babia, AC Borczuk, MM Mansukhani, S Anjali  
Columbia University Medical Center, New York, NY

Detection of EGFR Mutations in Lung Adenocarcinoma by Immunohistochemistry Using Mutant Specific Antibodies: Are We There Yet? (1961)  
K Arora, W Zhang, J Fukuoka, H Kitano, J Jagirdar  
University of Texas Health Science Centre, San Antonio, TX; University of Toyama, Toyama, Japan; National Institutes of Health, Bethesda, MD

A Kyshtoobayeva, KJ Bloom  
Clarian, A GE Healthcare Company, Aliso Viejo, CA

A Kyshtoobayeva, KJ Bloom  
Clarian, A GE Healthcare Company, Aliso Viejo, CA

EGFR Mutation Rates in 18246 Consecutive Non-Small Cell Lung Cancer Samples (1969)  
KJ Bloom, P Choppa  
Clarian, A GE Healthcare Company, Aliso Viejo, CA

Epidermal Growth Factor Receptor Copy Number Variations, but Not EGFR or KRAS Mutations, Are Frequent in Lung Squamous Cell Carcinomas (2035)  
R Roman, N Rodon, M Verdu, B Garcia, M Pujol, M Calvo, X Puig  
BIOPAT.Biopatologia Molecular, SL, Grup Assistencia, Barcelona, Spain; Hospital de Barcelona, SCIAS, Grup Assistencia, Barcelona, Spain; Histopat Laboratoris, Barcelona, Spain; Universitat de Barcelona, Statistics Department, Barcelona, Spain

Loss of PTEN Expression and Gene Copy Number in Non Small Cell Lung Cancer (2008)  
C Leduc, N Yanagawa, M Saieg, M Yoshimoto, T John, J Sykes, M Pintillie, C da Cunha Santos, J Squire, M-S Tsao  
Queen’s University, Kingston, Canada; University Health Network, Ontario Cancer Institute/Princess Margaret Hospital, Toronto, Canada; Yamagata Prefectural Central Hospital, Yamagata, Japan

J Fukuoka, T Hori  
Toyama University Hospital, Toyama, Japan

Thyroid Transcription Factor-1 Expression Correlates with Predominant Histologic Subtypes and Recurrence in Stage I Lung Adenocarcinoma Patients (1996)  
K Kadota, J-i Nitadori, K Suzuki, CS Sima, A Yoshizawa, VW Rusch, WD Travis, PS Adusumilli  
Memorial Sloan-Kettering Cancer Center, New York

Identification of Protein Signature in the Bronchoalveolar Lavage (BAL) Specimen from Lung Adenocarcinoma by Quantitative Proteomics (2011)  
Q Li, Y Li, F Askin, E Gabrielson, H Zhang  
The Johns Hopkins Medical Institutions and Bayview Medical Center, Baltimore, MD

Mucin5B (MUC5B) Expression Correlates with High Stage in Lung Adenocarcinoma by Quantitative Proteomics and Immunohistochemistry (2010)  
GH Lewis, Y Li, F Askin, E Gabrielson, H Zhang, QK Li  
The Johns Hopkins Medical Institutions, Baltimore, MD

Expression of Biomarkers of Tumor Cell Plasticity in Lung Adenocarcinoma Isotypes (2038)  
O Rouhi, M Pool, LD Arvanitis, KA Kaiser, D Escarzaga, E Hadziahmetovic, M Lipatov, B Mahon, JA Borgia  
Rush University, Chicago, IL

Napsin A: Utility in Identifying Primary Mucinous Lung Adenocarcinomas Versus Mucinous Metastasis (1960)  
DE Amaro, GY Lin  
UC San Diego Health Care System, San Diego

Comparison of Napsin A Expression in Tumors with Polyclonal and Monoclonal Antibodies (2060)  
S Zhu, J Shi, K Zhang, H Liu, M Wilkerson, F Lin  
Geisinger Medical Center, Danville, PA

PAX8 Is Useful in Discriminating Metastatic Endometrioid Carcinoma with Infrequent TTF-1 and Napsin A Positivity in the Lung (2056)  
J Ye, J Fiscella, S Hommons, LA McMahon, Q Yang, F Li, H Xu  
University of Rochester Medical Center, Rochester

Identification of an Effective Immunohistochemical Panel in Distinction of Breast Carcinoma from Lung Adenocarcinoma (2012)  
F Lin, S Zhu, H Deng, H Liu  
Geisinger Medical Center, Danville, PA
FIFTY-FIFTH MAUDE ABBOTT LECTURE

Tuesday, March 20, 2012
5:00 PM

Ballroom A-D, Convention Centre

Robert J. Kurman, MD


Dr. Robert J. Kurman was born and raised in New York. He obtained his B.A. degree from Queens College and his M.D. degree from Upstate Medical Center in Syracuse, New York. An internship in medicine and pathology at Beth Israel Hospital, New York was followed by residency training in pathology at the Peter Bent Brigham Hospital, Children’s Hospital and Boston Hospital for Women, and the Massachusetts General Hospital. He subsequently began residency training in obstetrics and gynecology at the Boston Hospital for Women, which was interrupted by military service at the AFIP where he served as Assistant Chief of the Department of Gynecology and Breast Pathology. He then resumed his training in gynecology at LA County Hospital/University of Southern California, returning to Washington, DC to take a position at Georgetown University School of Medicine, where he rose to the rank of Professor of Pathology and Obstetrics and Gynecology. In 1989 Dr. Kurman joined the faculty of the Departments of Gynecology & Obstetrics and Pathology at the Johns Hopkins Hospital as the Richard W. TeLinde Distinguished Professor of Gynecologic Pathology and Director of Gynecologic Pathology. In 2003 he was appointed Professor in the Department of Oncology.

Dr. Kurman’s early research focused on germ cell tumors of the ovary, gestational trophoblastic disease, endometrial hyperplasia and carcinoma, the relationship of human papillomavirus (HPV) to cervical neoplasia, and the application of immunohistochemical techniques to characterize gynecologic lesions. Many of these efforts have continued over the years, leading to major contributions in the diagnosis and classification of endometrial hyperplasia (WHO classification system), the identification of the precursor lesion of invasive serous carcinoma (endometrial intraepithelial carcinoma), the characterization of intermediate trophoblastic lesions (placental site and epithelioid trophoblastic tumors), and the reporting of HPV-related cervical lesions (“The Bethesda System for Reporting Cervical/Vaginal Cytologic Diagnoses”).

Dr. Kurman’s subsequent research efforts have concentrated on ovarian epithelial tumors. By collaborating not only with other pathologists but also with molecular biologists and epidemiologists, he has demonstrated the value of a multimodal approach to ovarian cancer research. His vision has led to the proposal of new disease models, which synthesize clinical observations with pathobiological mechanisms and validate conceptual hypotheses with molecular data, thereby bringing new insights to the field. Studies on mucinous tumors have provided refined diagnostic criteria enabling better distinction of primary ovarian mucinomas from metastases and establishing that pseudomyxoma peritonei in women is virtually never ovarian in origin. Subsequent studies on serous tumors led to numerous insights into the relationship of “borderline” serous tumors to invasive serous carcinomas. These include recognition of a non-invasive carcinomatous form of serous tumor designated low-grade (micropapillary) serous carcinoma, which explains the subset of borderline serous tumors with adverse behavior, and elucidation of their molecular pathogenesis, establishing that low- and high-grade serous carcinomas develop along different pathways. These findings led to the proposal of a dualistic model of ovarian serous carcinogenesis. This was subsequently expanded to include the other types of ovarian carcinomas, with type I carcinomas representing low-grade carcinomas, which have a relationship to precursor lesions such as borderline tumors and endometriosis, and type II carcinomas representing high-grade carcinomas, which have a distinct pathogenesis and clinical behavior. In light of recent studies implicating a precursor lesion in the fallopian tube (“serous tubal intraepithelial carcinoma”) as the origin of many so-called “ovarian” high-grade serous carcinomas, this model of ovarian carcinogenesis has been provocatively expanded to postulate that both low- and high-grade serous carcinomas arise from the fallopian tube proper or tubal epithelium that has been incorporated into the ovary. This novel concept has dramatically changed our thinking on this subject, which has important implications for ovarian cancer screening and prevention.

Dr. Kurman’s influence extends well beyond these research efforts. He has recruited and mentored pathologists and researchers who have become distinguished gynecologic pathologists in their own right, some of whom work with him at Johns Hopkins and others who have gone to other institutions to direct gynecologic pathology services. He has trained numerous fellows who are scattered across the country and abroad in a variety of academic and clinical practice settings. Many pathologists know him as an author and editor through his significant educational publications, including Blaustein’s Pathology of the Female Genital Tract, Diagnosis of Endometrial Biopsies and Curettings—A Practical Approach, the AFIP fascicles on Tumors of the Cervix, Vagina, and Vulva (3rd and 4th series) and Tumors of the Uterine Corpus and Gestational Trophoblastic Disease (3rd series). In addition, pathologists worldwide know him through his dynamic lectures. He has contributed to the advancement of the field through his leadership in professional societies, participation in international committees, and membership on editorial boards of numerous journals. As one colleague has observed, “like a fine wine, Dr. Kurman has only improved with age, even though he himself resists signs of aging.” Given that Dr. Kurman’s efforts have been instrumental in modernizing gynecologic pathology through his understanding of the value of combining molecular investigations with traditional morphologic assessment, it would be most accurate to say that as a pathologist he is a fine blend.

Brigitte M. Ronnett, M.D.
Ie-Ming Shih, M.D., Ph.D.
Dr. Steven G. Silverberg grew up in Brooklyn, New York, where he graduated from Brooklyn College in 1958. He entered The Johns Hopkins University School of Medicine with the intent of becoming an academic psychiatrist doing basic research, was soon disabused of both of these notions and, after a medical internship, trained in Anatomic Pathology at Yale and what was then known as Memorial Hospital for Cancer and Allied Diseases.

Dr. Silverberg was fortunate in being sent by the US Air Force for two years as a pathologist in Japan, where he was introduced to his future (and present) wife, Kiyoe, as well as to many young and older Japanese colleagues who have remained good friends over the years. After Japan, he began his academic career at the Medical College of Virginia and moved subsequently to the University of Colorado, where he became Professor of Pathology and Director of the Colorado Regional Cancer Center. The latter experience reaffirmed his interest in clinical oncology and lack of interest in administration.

In 1981 he became Director of Anatomic Pathology at The George Washington University, and in 1966 at the University of Maryland, where he is currently Professor Emeritus. In all of these situations he has had the good fortune to be stimulated intellectually by mentors, colleagues and students, who unfortunately are too numerous to be listed here but do include among mentors two former Distinguished Pathologist awardees, Drs. Leopold G. Koss (2001) and Stephen S. Sternberg (2011).

Although Dr. Silverberg is often thought of as a gynecologic and breast pathologist, he has always considered himself a general anatomic pathologist with special interest in the female genital tract and breast, and indeed over one-fourth of his more than 220 published articles have dealt with other topics (including cytopathology and autopsy pathology). His published research includes ground-breaking articles on the relation of both oral contraceptives and postmenopausal estrogens to endometrial carcinoma; the first studies to clearly separate the prognostic implications of pure intraductal, minimally and fully invasive ductal carcinomas of the breast; the first to suggest the relationship of atypical endometriosis to certain types of ovarian and peritoneal carcinomas, and widely used grading systems for epithelial ovarian cancers and noninvasive endocervical glandular lesions. He has also been the author or co-author of nine books and numerous chapters and editorials. His books include Silverberg's Principles and Practice of Surgical Pathology and Cytopathology, which is currently going into its Fifth Edition, edited now by Dr. Mark Wick, and was the first multiauthored surgical pathology text, the first to include cytopathology, and the first to devote separate chapters to medical and surgical diseases of the lung, liver and kidney. He is currently the Editor-in-Chief of the Fourth Series AFIP Atlas of Tumor Pathology and of the journal Pathology Case Reviews.

Dr. Silverberg has been privileged to participate in the education of hundreds of residents and fellows, as well as about eighty visiting fellows from abroad, over half of whom have come from Japan. His postgraduate courses for USCAP, ASCP, and other organizations have also provided educational support for hundreds, if not thousands, of pathologists over the years. As a result of these activities, he has received several local best resident teacher awards as well as the Harry P. Smith educator award of the ASCP and its ASCP Master designation. He has also been elected as an honorary Fellow of the Royal College of Pathologists of the UK. The Silverberg Award for lifetime achievement in surgical pathology is awarded annually to a distinguished Japanese pathologist by the Japanese Division of the IAP.

In addition to USCAP, Steve Silverberg is a member of numerous other pathology and gynecologic oncology societies, has served on committees and task forces of all of them, and has served as President/Chairman of the Association of Directors of Anatomic and Surgical Pathology (ADASP), International Society of Gynecological Pathologists, International Society of Breast Pathology, and the Mid-Atlantic Gynecologic Oncology Society. Since 1999 he has been the Pathology Referee for the Gynecologic Oncology Group (GOG), and he has also been a pathology reviewer for the Japanese GOG since 2007.

Probably his major source of amazement over his working years, however, has been the realization that universities have been willing to pay him for having so much fun as a pathologist. He currently lives most of each year in northern Japan, returning to the Washington-Baltimore area to avoid heavy winter snow, see old friends, and teach, although not necessarily in that order of importance.
Dr. LiVolsi was born in New York City and attended Columbia University College of Physicians and Surgeons from where she received her MD degree and pursued residency and fellowship training at Columbia in the area of anatomic (surgical) pathology. Her area of subspecialty interest was endocrine pathology; she pursued research projects in this area throughout her career first at Yale University and later at the University of Pennsylvania.

She currently is Professor of Pathology and Laboratory Medicine at the University of Pennsylvania.

Her research interests have predominantly been in the application of new technology to the diagnosis and prognostic import of tumors of the endocrine system. Thus she has utilized immunohistochemistry, clonality assessment, analysis of loss of heterozygosity of tumor suppressor genes and analysis of microRNA expression alterations in studies in lesions of the endocrine tissues. Another area of interest has been in tissue procurement and preservation for research; for 24 years she has been principal investigator of the Eastern Division of the Cooperative Human Tissue Network, an NCI funded grant composed of 6 divisions around the United States that supply human biospecimens to investigators using tissue in their research endeavors.

Dr. LiVolsi has published over 365 original papers, numerous chapters and several books. She serves on many editorial boards of pathology and endocrinology journals; she currently is co-editor (with Dr. Anne Marie McNicol) of ENDOCRINE PATHOLOGY, the journal of the Endocrine Pathology Society.

Dr. LiVolsi has won numerous awards and has been invited to deliver several named lectures around the world. The awards include the Mostofi award for service to the US Canadian Academy of Pathology, the Master Pathologist award of the American Society of Clinical Pathologists and the Medal of Honor from the University of Tokyo. She was the 2007 Maude Abbott lecturer at the USCAP.

She has held important leadership positions in major pathology organizations, including President of the US Canadian Academy of Pathology, the Association of Directors of Anatomic and Surgical Pathology, the Arthur Purdy Stout Society of Surgical Pathologists, and the Endocrine Pathology Society. She has served as a member and then Chair of the Pathology Panel of the Chernobyl Tissue Bank, an international committee which reviews the pathology of the thyroid tumors which have arisen in children and young adults following the nuclear accident in Chernobyl. In 2006, on the anniversary of the disaster, Dr. LiVolsi presented the pathologic aspects of these thyroid lesions at a special commemorative meeting at the United Nations in New York City.

Dr. LiVolsi has presented many seminars in national, international and regional pathology and endocrinology meetings; these have always been well received.

She has been a teacher and mentor to numerous pathologists, many of whom currently hold leadership positions in academic pathology. She receives excellent reviews as an educator and in 2008 won the James E. Wheeler award for excellence in resident education at the University of Pennsylvania.

THE HARVEY GOLDMAN MASTER TEACHER Awardee

The Harvey-Goldman Distinguished Teaching and Mentoring Award was established in 2011 as a tribute to honor a dedicated, long-standing educator and mentor, Dr. Harvey Goldman, in order to recognize his seminal contributions to the USCAP post-graduate educational and mentoring activities.

2012

Virginia A. LiVolsi, MD

Award Presentation at Business Meeting

3:30 PM - Tuesday, March 20, 2012
Ballroom A-D, Convention Centre
Dr. Powers’ areas of expertise include: head and neck, respiratory tract, infectious disease and fine needle aspiration with its associated pitfalls. She is a widely respected and recruited visiting faculty member and workshop director for state and regional societies and has also participated in the Bethesda and NCI/NIH sponsored conferences. Dr. Powers has presented over 120 scientific abstracts at various national and international scientific meetings, has co-authored two textbooks, *Fine Needle Aspiration Biopsy of the Head and Neck* and *Salivary Gland Cytopathology*, and has authored numerous chapters and over 100 publications in the disciplines of surgical and cytopathology. She is nationally recognized as a diagnostician and an educator and has been repeatedly listed as one of America’s Top Physicians and Pathologists, as well as in Best Doctors in America.

Dr. Powers is a strong leader and mentor to her faculty and trainees and believes that the future success of the field of Anatomic Pathology depends upon strong educational programs that maintain the foundation and tenets of classical morphology while embracing new and evolving technologies. Working toward this goal, she has consistently been involved in the development of educational programs for several pathology organizations, and personally presented numerous symposia and teleconferences, and workshops. Dr. Powers has served as an editorial board member/ ad hoc reviewer for numerous pathology journals over the years. An Associate Editor of *Cancer Cytopathology* since its inception in 1996, she became Editor-in-Chief in 2009.

Dr. Powers served for six years on the American Society of Clinical Pathology (ASCP) Board of Registry and then as Chair, of its CCE Council on Cytopathology (1996-2002). She is a recipient of the ASCP’s George F. Stevenson Distinguished Service Award. She has been an executive board member and officer of the American Society of Cytopathology (ASC), including President of this Society in 2004. She participated in the development, and was an initial member, of the ASC Foundation and received the Society’s highest honor, the Papanicolaou Award, in 2008. Dr. Powers has also served on the Executive Board of the Papanicolaou Society of Cytopathology and as a member of the Cytopathology Test Development Committee of the American Board of Pathology.

The Academy is, in many respects, a second home for Dr. Powers and she has been very active in all facets of the enterprise, especially in the development of quality educational venues and programs that mentor junior colleagues. Because of her involvement over the years with excellent scientific abstract presentations at the Academy she was asked to participate in the Academy’s Expert’s Scientific Review Board and subsequently as a moderator of platform presentations. In addition, she has been a presenter at Specialty Conferences, Companion Societies, a Short Course on Salivary Gland Pathology, and recently, the Special Course in Cytopathology. She was appointed to the Education Committee from 2000 - 2004 where she developed, and continues to direct, the popular Diagnostic Cytopathology Course. She was elected to Council in 2004 and since 2002 has been active member of the Academy’s Long Term Strategic Planning Initiatives. Recently, she was appointed a member of the newly created USCAP Foundation Board and as a member of another new strategic effort, an expanded and empowered membership committee.

In summary, Dr. Powers has a well established record as an outstanding educator and researcher which is clearly evident from her service and effort for the last two decades on behalf of the Academy. In addition to her professional achievements, Dr. Powers has become an enthusiastic equestrian who enjoys riding her Warmblood Hunter, Toy Soldier.

**THE F.K. MOSTOFI DISTINGUISHED SERVICE Awardee**

The F.K. Mostofi Distinguished Service Award was established as a tribute to the long and dedicated service given by Dr. Mostofi to the International Academy of Pathology. This Award is presented to a member of the USCAP who has rendered outstanding service to the International Academy of Pathology and its US-Canadian Division.

**2012**

Celeste N. Powers, MD, PhD

*Award Presentation at Business Meeting*

3:30 PM - Tuesday, March 20, 2012

Ballroom A-D, Convention Centre
Early life
I was brought up in a small country town 16 miles from the city of Brisbane, in the State of Queensland, Australia. My parents had a general store in the town that was surrounded by small dairy farms. As was usual in such situations, the family assisted in maintaining the family business. My brother and I both worked in the store until we had finished our University studies. In my first year at school I was one of a class of 10 in a two teacher school in which each teacher taught a number of different grades.

My secondary schooling and University studies were undertaken in Brisbane, and I graduated M.B, B.S. from the University of Queensland in 1959.

Pathology training
After one year of pathology training in a general laboratory in Brisbane, I went to Port Moresby in Papua New Guinea to fulfil the conditions of a scholarship I gained in my 4th year of medicine. To my surprise, two weeks after my arrival, the Director of Public Health appointed me to be the Acting Director of Pathology for the whole country with the brief to establish a viable National pathology service. I had no doubt that I could do this because I had taken trouble to make sure that I knew as much as possible about all the sections of a pathology department, including how to run a blood banking and transfusion service.

My appointment to this position opened the door to a unique opportunity to study the diseases of a Stone Age people at the time of their first contact with modern medical services, and for at least half of them, their first contact with any people outside their own tribal boundaries. Moreover, I was able to help in the establishment of a Medical School that in 2010 celebrated its 50th year since foundation, and to study the changes in the disease patterns that occurred since then.

During the first two years in PNG I was strongly supported with consultative advice from my mentor in Brisbane, Redmond Quinn, and from two of the leading pathologists in Australia at that time, Vincent McGovern in Sydney and Rolf ten Seldam in Perth. Then I spent two years at the Royal Postgraduate Medical School in London, England. This was a wonderful opportunity to work in a highly academic environment where ‘nothing was uncommon’ and from which base I was able to study Tropical Medicine, both at the RPMS, and in some of the other world leading institutions in London. When I returned for another two years in PNG I was well equipped to make a serious study of the diseases that I had encountered there. This formed the basis of my Doctor of Medicine thesis.

Work as a specialist Anatomical Pathologist
In 1968 I was appointed Director of Anatomical Pathology at the Royal Brisbane Hospital, the largest teaching hospital in Brisbane and one of the largest in Australia. I held this position for 23 years until I took the option of ‘early retirement’ with a view to doing some things that I had not been able to do before. At this time I was given the rare title of Emeritus Consultant in recognition of distinguished service to the hospital. In 2011 this was further enhanced by the award of a Life Time Distinguished Service Award.

Tropical Medicine
When I arrived in Brisbane, there was no one who was particularly experienced in the diagnosis and treatment of tropical medicine. By default I at least partly filled this role, especially amongst the staff of the RBH.

My experience in the management of Malaria led to some papers on the subject, and at one of the International Meetings of the Haematology Society of Australia, I was invited to attend a weekend course in Malaria to speak on the diagnosis and TREATMENT of malaria.

Education
I took a keen interest in undergraduate and postgraduate teaching, in continuing education of pathologists, and in quality control in Anatomical Pathology.

Since 1968 I have been giving lectures to undergraduate medical students almost every week. With the establishment of 3 new medical schools in Queensland, I now give lectures at 4 different medical schools.

My department has had a very high pass rate for trainees sitting for the Fellowship examinations of the Royal College of Pathologists of Australasia. We have conducted and contributed to more educational slide seminars for the RCPA and for the Australasian Division of the IAP than any other department in the Country.
In 1976 on behalf of the RCPA I established the first Quality Assurance Programme in Anatomical Pathology in Australia and New Zealand. This was one of the first of its kind in the world. I ran this until 1982 when I developed a slide exchange continuing education programme especially for pathologists working alone or in pairs in country hospitals. I continued this until 2003 when I tried to convert it to a digital form of continuing medical education to replace the glass slides. In conjunction with a computer programmer I developed a ‘virtual slide’ that could be stored on a CD for distribution and examination by participants.

At the Annual Scientific Meeting of the Australasian Division of the IAP in 2006 the General Surgical Pathology seminar was presented in this format with a CD and a discussion book in full colour.

Since 2006 all the slide seminars for the Annual Scientific Meetings of the Australasian Division of the IAP have been presented in this format. In 2011 there was a noticeable increase in the number of participants who purchased these seminars with colour booklets, so we can assume that the acceptance is increasing.

**Publications**

I have published over 70 articles in peer reviewed journals together with the following books.

  - A third edition of this book was published in 2004. It has a five star rating in Amazon.com
  - The first and second editions were published in Spanish, Japanese and Greek. A Russian translation of the third edition was released in Jan 2005 and a Japanese translation was released in 2006.

- Cooke RA Scientific Medicine in the Twentieth Century – A Commemoration of 100 years of the International Association of Medical Museums and the International Academy of Pathology. Prepared at the request of the organising committee of the XXVI -100th Anniversary- International Congress of the International Academy of Pathology. 2006


  - This book has had very flattering reviews.
  - In July 2009 it received a National award from the Australian book publishers as the best scientific book published in 2008.
  - It also won first prize in one category, and a highly commended in another in the 2009 British Medical Association book awards for the best books published in 2008. The BMA reviewer’s comment “I’ve seen nothing like it in respect of its capacity to draw the reader into the topic in 34 years of study and practice.”

**Photo journalism**

After two years as President of the Australasian Division of the IAP I became Editor of the News Letter of the Division in 1989.

In 1995 I became Editor of the News Bulletin of the International Academy of Pathology.

I continue to hold these positions. Both publications have become a photographic record of members who attend these meetings, and of distinguished speakers at the meetings. In the News Bulletin I have tried to include reports on the pathology and the pathologists from many of the 55 Divisions of the IAP. In effect I have tried to present the members of the IAP to each other.

**Awards from the IAP**

- Gold medals for distinguished service from the Australasian Division of IAP and from the International Academy of Pathology.
- In 2006 the Australasian Division of IAP created a new category, a Robin Cooke Medal to acknowledge particularly distinguished service to the Division.

**Acknowledgement**

No-one can do these sorts of things without the support and assistance of a cooperative wife and family, and I wish to acknowledge their help and support.
Cristina Antonescu graduated from Carol Davila Medical School, Bucharest, Romania in 1992. She started her Anatomic Pathology training at the same university in Bucharest between 1992-1994, before coming to US. She finished her Residency in Anatomic Pathology in 1996 at Lenox Hill Hospital in New York, and then enrolled in an Oncologic Pathology Fellowship at Memorial Sloan-Kettering Cancer Center (MSKCC) under Dr. Juan Rosai. She then stayed an additional year as a chief fellow, before joining Dr. Marc Ladanyi’s lab as a sarcoma research fellow. During the time spent in the lab she acquired basic molecular skills related to detection and characterization of fusion transcripts in translocation-associated sarcomas. In 1999, she joined the staff of the Pathology Department at MSKCC as an Assistant Attending Pathologist. Her academic career in bone and soft tissue pathology was guided by the close mentorship of two historical figures, Drs. Andrew Huvos and James Woodruff.

While being on full clinical duties she continued her bench-work research in Dr Peter Besmer laboratory. Dr Besmer, professor in the Developmental Biology Program at Sloan-Kettering Institute, has originally isolated the v-kit oncogene and has done seminal work in KIT-induced signal transduction. As a result of his mentorship and collaborative effort, Dr Antonescu obtained in 2004 an American Cancer Society K08 award to study the molecular mechanisms of oncogenesis in gastrointestinal stromal tumors (GIST), an interest of hers that continues today. She was instrumental in characterizing the first mouse model of GIST. Her work has led to major contributions to the field, such as: understanding the clinical impact of oncogenic KIT mutations in GIST; characterization of pathologic and molecular heterogeneity in imatinib-stable or imatinib-responsive GIST; define mechanisms of tumor progression and resistance to tyrosine kinase inhibitors; work has lead to major contributions to the field, such as: understanding the clinical impact of oncogenic KIT mutations in GIST; characterization of pathologic and molecular heterogeneity in imatinib-stable or imatinib-responsive GIST; define mechanisms of tumor progression and resistance to tyrosine kinase inhibitors; molecular characterization of pediatric GIST; novel V600E BRAF mutations in imatinib-naive and imatinib-resistant GIST; establishing a novel in-vitro screening method for 2nd generation kinase inhibitors on a library of genetically engineered cell lines harboring imatinib sensitive single KIT mutations, as well as imatinib-resistant double KIT mutations. In 2006 she received the Boyer Clinical Award from Memorial Sloan-Kettering Cancer Center, in recognition for her accomplishments and to support her ongoing work on GIST.

The other scope of her research focused on the molecular characterization of novel fusion genes, which may serve as specific molecular markers in diagnosis and prognosis of soft tissue and bone tumors, as well as potential therapeutic targets. A number of these discoveries were done in close collaborative effort with Drs. Christopher Fletcher and Paola Dal Cin from Brigham & Women’s Hospital. Just to name a few: the identification of EWSR1-CREBL1, as a novel variant translocation in the majority of clear cell sarcoma of the gastrointestinal tract and angiomatoid fibrous histiocytoma; the molecular classification of soft tissue and bone myoepithelial tumors, showing common involvement of EWSR1 rearrangement and characterization of a novel EWSR1-POUF1 fusion in a subset of tumors; identification of a new WWTR1-CAMTA1 gene fusion as a consistent genetic abnormality in epithelioid hemangioendothelioma of different anatomic sites as well as demonstrating the monoclonality of multifocal lesions; identification of a consistent t(1;10) translocation, with rearrangements of TGFBR3 and MGEA5, in both myxoinflammatory fibroblastic sarcoma and hemosiderotic fibrolipomatous tumor, suggesting a common pathogenesis of these lesions showing a distinct morphologic appearance; and more recently a high prevalence of CIC-DUX4 fusion in EWSR1-negative small blue round cell tumors.

The expertise and productivity of Dr Antonescu sarcoma research lab has played a significant role in the success of the sarcoma research program at MSKCC. The Center has been recognized as a leader in sarcoma research by the NCI, which has supported MSKCC with Soft Tissue Sarcoma Program Project Grants. In further recognition of the integrated Institutional efforts, the NCI awarded its first ever Specialized Program of Research Excellence (SPORE) grant for soft tissue sarcoma to MSKCC. The five-year (07/01/10-06/30/15), $11.5 million grant funds research aimed at developing an integrated multidisciplinary investigation of the biology, pathogenesis, progression, and natural history of sarcoma. As a co-leader of one of the projects, her lab will apply genomic approaches to identify alternative therapeutic candidates and signaling pathways in wild-type GIST and in imatinib-resistant GIST lacking an identifiable mechanism of resistance.

Dr Antonescu is an Attending Pathologist and Member on the tenure track at MSKCC and she serves as the chief of bone and soft tissue pathology service. Her sarcoma research laboratory serves as an invaluable resource in mentoring young investigators and pathology fellows, with a special interest in sarcoma pathology and molecular biology. As if these chores are not enough, she has served and continues to serve as a central pathology reviewer for multi-institutional sarcoma clinical trials.

She is keen in dedicating this award to the remarkable mentors who have helped her achieve such an accomplished academic career: Drs Constantin Tasca, Juan Rosai, Andrew Huvos, James Woodruff, Marc Ladanyi, Peter Besmer, Murray Brennan and Christopher Fletcher. She also wants to thank her closest colleagues and collaborators: Paola dal Cin, Pedram Argani, Enrique de Alava, Ilan Weinreb, Julia Bridge, Jean-Michel Coindre, Narsi Agaram, and Meera Hameed.
EVENING SPECIALTY CONFERENCE

Bone & Soft Tissue Pathology
Tuesday, March 20, 2012
7:30 – 9:30 PM
Convention Centre 301-305
Challenges in the Diagnosis of Bone and Soft Tissue Tumors

Moderator:
ANGELO P. DEI TOS, MD
General Hospital of Treviso
Treviso, Italy

Panelists:
JOHN R. GOLDBLUM, Cleveland Clinic, Cleveland, OH
ALEXANDER LAZAR, UT-MD Anderson Cancer Center, Houston, TX
JOHN S.J. BROOKS, Pennsylvania Hospital, Philadelphia, PA
RITA KANDEL, Mount Sinai Hosp, Toronto, ON, Canada
ANDREW E. HORVAL, Univ of California/SF, San Francisco, CA

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EVENING SPECIALTY CONFERENCE

Genitourinary Pathology
Tuesday, March 20, 2012
7:30 – 9:30 PM
Convention Centre Ballroom A/B
A Potpourri of Interesting Urological Pathology

Moderator:
JOHN R. SRIGLEY, MD
The Credit Valley Hosp
Mississauga, ON, Canada

Panelists:
JESSE K. MCKENNEY, Stanford University, Stanford, CA
ANDREW J. EVANS, Toronto General Hospital, Toronto, ON, Canada
JAMES KENCH, Royal Prince Alfred Hospital, Sydney, Australia
ESTHER OLIVA, Mass General Hospital, Boston, MA

Please Note –
Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
**EVENING SPECIALTY CONFERENCE**

**Head & Neck/Endocrine Pathology**

Tuesday, March 20, 2012  
7:30 – 9:30 PM  
Convention Centre 211-214  
Diagnostically Challenging Cases

Moderator:  

**BRUCE M. WENIG, MD**  
Beth Israel Med Ctr  
New York, NY

Panelists:  

**ZUBAIR W. BALOCH**, Hospital of Univ of PA, Philadelphia, PA  
**KENNETH W. BEREAN**, UBC Hospital, Vancouver, BC, Canada  
**VANIA NOSE**, University of Miami School of Medicine, Miami, FL  
**BEVERLY Y. WANG**, New York Univ/Medicine, New York, NY

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**EVENING SPECIALTY CONFERENCE**

**Liver Pathology**

Tuesday, March 20, 2012  
7:30 – 9:30 PM  
Convention Centre Ballroom C  
Just Some Good Cases

Moderator:  

**KENNETH P. BATTS, MD**  
Hospital Pathology Associates  
Maple Grove, MN

Panelists:  

**SANJAY KAKAR**, VA & UCSF Medical Ctr, San Francisco, CA  
**FRANK A. MITROS**, University of Iowa, Iowa City, IA  
**SCHUYLER SANDERSON**, Hospital Pathology Associates, Minneapolis, MN  
**DAVID A. OWEN**, University of British Columbia, Vancouver, BC, Canada

Please Note —  

Prior to this Annual Meeting, slides and case histories for each of the Specialty Conferences will be posted on the USCAP website (www.uscap.org) so they may be reviewed in advance. In most instances there is a virtual slide for each case to be discussed.

Handouts for all Specialty Conferences will be available on the website the morning after the conference. Printed copies of the handout will not be available at the meeting.
LONG COURSE
Malignant Lymphomas – Building on the Past, Moving to the Future
Wednesday, March 21, 2012
Convention Centre Ballroom B
8:00 AM–5:30 PM

Course Directors:

Steven H. Swerdlow, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA
Elias Campo, MD, 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 1/2 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.

8:00 Introduction
Steven H. Swerdlow, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA

8:05 Lymphoma Classification and the Tools of Our Trade
Steven H. Swerdlow, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA
- 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.

8:20 Nodal and Leukemic Small B-Cell Neoplasms
James R. Cook, MD, PhD, Cleveland Clinic, Cleveland, OH
- 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.

9:05 Non-Cutaneous Extranodal and Splenic Small B-Cell Lymphomas
Andrew Wotherspoon, MB, BCh, FRCPath, Royal Marsden Hospital, London, England
- 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.

9:35 Questions

9:40 Coffee Break, Poster Session V, Exhibits

11:05 Aggressive B-Cell Lymphomas – How Many Categories Do We Need?
Jonathan W. Said, MD, University of California Los Angeles, Los Angeles, CA
- 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.

11:45 The Bridge from Large B-cell Lymphomas to Hodgkin Lymphomas and Their Differential Diagnosis
Nancy Lee Harris, MD, Massachusetts General Hospital, Boston, MA
- 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.

12:15 Questions

12:20 Lunch

1:30 Nodal and Extranodal T-Cell and NK-Cell Lymphomas
Elaine S. Jaffe, MD, National Cancer Institute, Bethesda, MD
- 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.
2:15  Non-Neoplastic Mimics of Malignant Lymphoma
Lawrence M. Weiss, MD, Clarient, a GE Healthcare Company, Aliso Viejo, CA
• 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.

2:45  Questions

2:50  Coffee Break, Poster Session VI, Exhibits

4:20  Whole Genome Profiling and Other High Throughput Technologies – Current Contributions and Future Hopes
Elias Campo, MD, Hospital Clinic, University of Barcelona, Barcelona, Spain
• 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.

4:50  The Clinician’s Perspective – A View from the “Receiving” End
Joseph M. Connors, MD, BC Cancer Agency, Vancouver, BC, Canada
• State the crucial distinctions â 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.

5:15  Concluding Remarks
Steven H. Swerdlow, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA
A coffee break is scheduled for 9:30 – 10:30 AM to allow time for viewing posters

* indicates this is a new course
++ indicates this is an ending course

03 Common Dilemmas in Breast Pathology *
Sunil Badve, MD, Indiana University, Indianapolis, IN
Jorge Sergio Reis-Filho, MD, PhD, FRCPath, The Breakthrough Breast Cancer Research Centre, London, UK
Ian O. Ellis, MBBS, Nottingham City Hospital, Nottingham, UK

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

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

24 Classification and Prognostication of Mesenchymal Tumors of the Gastrointestinal Tract with Emphasis on Immunohistochemical and Molecular Markers *
Brian P. Rubin, MD, PhD, Cleveland Clinic, Cleveland, OH
Jason Hornick, MD, PhD, Brigham and Women’s Hospital, Boston, MA

28 Renal Tumors in Adults: A Comprehensive Contemporaneous Review *
Pheroze Tamboli, MBBS, The University of Texas MD Anderson Cancer Center, Houston, TX
Priya Rao, MD, The University of Texas MD Anderson Cancer, Houston, TX

32 How To Diagnose Clinically Relevant High Risk Gynecologic Precancerous Lesions *
George L. Mutter, MD, Harvard Medical School and Brigham and Women’s Hospital, Boston, MA
Marisa R. Nucci, MD, Harvard Medical School and Brigham and Women’s Hospital, Boston, MA

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

46 Neuropathology after Dark: Surviving Intraoperative Frozen Section Consultation *
Christine E. Fuller, MD, Virginia Commonwealth University, Richmond, VA
Gregory N. Fuller, MD, PhD, MD Anderson Cancer Center, Houston, TX
**POSTER SESSION V**
Wednesday, March 21, 2012
9:30 AM - 12:00 PM
CC Exhibit Hall B3 & C

Poster numbers to the left of the abstract title correspond to the board number where the poster will be displayed. The number in parentheses after the title is the abstract number in the Abstract Book. These posters will be on display this morning only.

**AUTOPSY**

1. DSG2 Mutations in ARVC: A Molecular Autopsy Study (17)
   J Young, M Zhang, F Fava, JB Oliveira, A Burke
   University of Maryland Medical Center, Baltimore, MD; Shanghai Medical College, Fudan University, Shanghai, China; National Institutes of Health, Bethesda, MD; Messejana Heart and Lung Hospital, Fortaleza, Brazil

2. Do Patients Presenting with Atherosclerotic Heart Disease and Sudden Cardiac Death Have a Higher Body Mass Index? (8)
   V Nair, S Guglani, GM Nair, M Pickup, R Fyfe
   Hamilton Health Sciences, McMaster University, Hamilton, Canada

3. 1971 Non-Atherosclerotic Sudden Cardiac Deaths Referred for Specialist Opinion to a Tertiary Centre in the UK during 1994-2010 (2)
   SV de Noronha, K Ohta-Ogo, K Norita, W Banya, MN Sheppard
   NHLI Imperial College London, London, United Kingdom; Royal Brompton & Harefield NHS Foundation Trust, London, United Kingdom

4. Transthyretin Amyloidosis: The Heart and beyond (15)
   Q Xie, X Zhang, J Libien
   SUNY Downstate Medical Center, Brooklyn, NY; The Mount Sinai Medical Center, New York, NY

5. Acute Hepatic Hemorrhage in Hospital-Based Autopsy Series: A 21-Year Review (9)
   SI O'driscoll, ER Rodriguez, CD Tan
   Cleveland Clinic, Cleveland, OH

6. Rapid Autopsy Program for Pancreatic Carcinoma: Correlation of Histologic Subtypes and Pattern of Spread with Mucin Phenotype and Molecular Markers (6)
   EM Linde, NA Remmers, DJ Dimaio, JM Anderson, MA Hollingsworth, AJ Lazenby
   University of Nebraska Medical Center, Omaha, NE; University of Nebraska Medical Center, Omaha, NE

7. Postmortem Evaluation of Kidney and Other End-Organ Toxicity in Glioblastoma Patients Treated with Bevacizumab (13)
   X Tian, JJ Zhu, N Linendoll, R Pfannl, M Pilichowska
   Tufts Medical Center, Tufts Medical School, Boston, MA

8. Pulmonary Hypertension in Adult Sickle Cell Patients at Autopsy (11)
   JE Pogoriler, AN Husain
   University of Chicago, Chicago, IL

9. Well’s Scores Accurately Predict Presence of Massive Pulmonary Thromboembolism at Autopsy (3)
   RA Girard, V Gulli, M Colaco, B Fyfe
   UMDNJ Robert Wood Johnson University Hospital, New Brunswick, NJ

10. To Assess the Use of Ancillary Studies in the Determination of Cause of Death (1)
    LPM Clarke, LM Mulligan, SF Crowther
    Adelaide and Meath Hospital, Dublin, Ireland

11. A Novel Challenging Role for Pathologists: Direct Verbal Communication of Autopsy Findings to Families in a Risk Management Program (12)
    A Quintana, T McDonald, A Kajdaszy-Balla, T Valyi-Nagy
    University of Illinois Medical Center, Chicago, IL

12. Imaging and Pathology Discrepancies in Lymph Node Evaluation of Mammary Carcinoma (176)
    M Kasami, T Uematsu, T Otchi, M Abe
    Shizuoka Cancer Center, Nagaiizumi, Shizuoka, Japan

13. Number of Positive Sentinel Nodes after Pre-Screening with Axillary Ultrasound Is Predictive of Overall Axillary Tumor Burden in Breast Carcinoma (294)
    RJ Wolsky, CB Bills, H Sattar
    University of Chicago, Chicago, IL

14. Predicting Non-Sentinel Lymph Node Status in Breast Cancer Patients with Metastases in Sentinel Lymph Nodes (209)
    AJ McCarthy, K O’Connor, F O’Connell, MW Bennett, TJ Browne
    Cork University Hospital, Cork, Ireland

15. Distribution Patterns of Micrometastases and Isolated Tumor Cell Clusters (ITC) in Sentinel Lymph Nodes from the NSABP B-32 Trial (219)
    SR Nankoe, JM Skelly, T Ashikaga, SP Harlow, DN Krag, DL Weaver
    University of Vermont College of Medicine, Burlington, VT

    EA Pirruccello, PC McGrath, VV Krol, RK Patel, RL Stewart, YM Brill, AL Szabunio, LM Samavat
    University of Kentucky, Lexington, KY; VAMC, Lexington, KY

17. A Single Institution Analysis of Metastatic Breast Carcinoma and Axillary Sentinel Lymph Node False-Negative Intraoperative Interpretations over a Ten Year Period (306)
    D Yu, S Silverman, J Danylik
    Misericordia Hospital, Edmonton, AB, Canada; University of Alberta, Edmonton, AB, Canada

18. Impact of ACOSOG Trial Results in the Practice of Breast Cancer Surgery in Long Island: Survey of 19 Hospitals (228)
    D Pandya, J Liu, M Singh, P Kane, C Tornos
    Stony Brook University Medical Center, Stony Brook, NY

19. Preoperative Identification of N1a Disease in Clinically Node Negative Breast Cancer Patients (273)
    RL Stewart, PC McGrath, H Wright, AL Szabunio, EA Pirruccello, YM Brill, VV Krol, RK Patel, LM Samavat
    University of Kentucky, Lexington, KY; Lexington VA Medical Center, Lexington, KY

20. How Many Tumor Cells in the Intraoperative Imprint Cytology of Sentinel Lymph Nodes Are Enough To Diagnose Metastatic Breast Carcinomas? (297)
    Koo Foundation Sun Yat-Sen Cancer Center, Taipei, Taiwan
21 Applying the American College of Surgeons Oncology Group Z0011 Trial; Can Histological Parameters Predict Axillary Nodal Understaging in Breast Carcinomas? (222)
KM O'Connor, AJ McCarthy, F O'Connell, TJ Browne, MW Bennett
Cork University Hospital, Cork City, Ireland

22 Cytokeratin Positive Cells in Sentinel Lymph Nodes of pT1a Breast Cancers (168)
S Jaffer, C Nagi, A Nayak, R Guarino, LJ Bleiweiss
The Mount Sinai Medical Center, New York, NY

23 Axillary Recurrence after Negative Sentinel Lymph Node Dissection in Three Elderly Triple Negative Breast Cancer Patients (265)
M Sharma, KA Skinner, DG Hicks, P Tang
University of Rochester Medical Center, Rochester, NY

24 Axillary Recurrence of Breast Carcinoma (167)
S Jaffer, C Nagi, A Nayak, R Guarino, LJ Bleiweiss
The Mount Sinai Medical Center, New York, NY

25 Controversies Generated by Complete Axillary Dissections Prompted by (+) Ultrasound Guided Fine Needle Aspiration Biopsy in Clinically Node (-) Breast Cancer Patients (186)
VV Krol, EA Pirruccello, JJ Krol, PC McGrath, RK Patel, RL Stewart, AL Szabunio, YM Brill, LM Samaya
University of Kentucky, Lexington, KY; VAMC, Lexington, KY

26 Peptide Receptors as Targets for PET/SPECT Radiopharmaceuticals: A Breast Cancer Tissue Microarray Study (283)
G Turashvili, O Goktepe, S McKinney, S Aparicio, B Guerin, F Benard
BC Cancer Research Centre, Vancouver, BC, Canada; Queen’s University and Kingston General Hospital, Kingston, ON, Canada; Université de Sherbrooke, Sherbrooke, QC, Canada

27 Is Routine Testing for Hormone Receptors Necessary in the Clinical Management of Grade 1 Breast Carcinomas? (267)
WA Shen, CJ Sung, C Zhang, MM Steinhoff, M Lomme, RA Simon, S Ehsaiavand, WD Lawrence, MR Quddus
Brown University/Women & Infants Hospital, Providence, RI; Chi Mei Hospital, Liouying, Tainan, Taiwan

28 Cytokeratin 5/6 Negative Atypical Ductal Hyperplasia Predicts Disease Progression in Subsequent Breast Biopsies (221)
JC Nguyen, P Haseth, GY Lin, N Weidner
The University of California San Diego, San Diego, CA; Clarient, Inc., Aliso Viejo, CA

29 Prediction of Prognosis in Breast Cancer by Using CD34 Immunostain and Quantitative Image Analysis (227)
U Ozerdem, EM Wojcik, GA Barkan, X Duan, C Ersahin
Loyola University Medical Center, Chicago, IL

30 Differential Expression of Milk Fat Globule-EGF Factor 8 (MFG-E8) in Breast Cancers (145)
Y Fang, Q Xie, H Wang, C Yang, AS Braverman, CA Axiotis
SUNY Downstate Medical Center/Kings County Hospital, Brooklyn, NY; BIDMC, Boston, MA; MGH, Boston, MA; SUNY Downstate Medical Center/Kings County Hospital, Brooklyn, NY

31 Insulin-Like Growth Factor Receptor in Breast Cancer (211)
LA McLendon, C Cohen, S Patel, R Diaz, S Schmechel, A Adams, GM Oprea-Ilie
Emory University, Atlanta, GA; University of Minnesota, Minneapolis, MN

32 Tumor-Associated Macrophages and Tumor-Infiltrating CD8+ Lymphocytes in Breast Cancer: Its Association with Epithelial-Mesenchymal Transition and Breast Cancer Stem Cell Phenotype (111)
Y Choi, DJ Kim, EJ Kim, SY Park
Seoul National University Hospital, Seoul, Republic of Korea; Seoul National University Bundang Hospital, Seongnam, Republic of Korea; Seoul National University College of Medicine, Seoul, Republic of Korea

33 Immunohistochemical Expression of ID4 in Triple Negative Breast Cancer Correlates with Basal Phenotype and Poorer Disease Free Survival (280)
PH Tan, AA Thike, MMM Thu, M Daniels, PY Cheok
Singapore General Hospital, Singapore

34 Variation in Assessment of ER and PR Expression of the Same Tumor Block with Repeated IHC Stainings by Computer Assisted Imaging Analysis and Manual Analysis (107)
H Chen, J Wang, L McMahon, Q Yang, H Bu, DG Hicks, P Tang
University of Rochester Medical Center, Rochester, NY; RTI Health Solution, Research Triangle Park, NC; West China Hospital of Sichuan University, Chengdu, Sichuan, China

35 Glycolytic phenotype is Correlated with Aggressiveness and Worse Prognosis in Invasive Ductal Carcinomas (162)
H Han, SM Jang, K-S Jang, YJ Jan, YN Oh, MS Chung, SS Paik
College of Medicine, Hanyang University, Seoul, Korea

36 COX-2 (Cyclooxygenase-2) Expression Is Associated with Aggressive Disease in Invasive Mammary Carcinoma (199)
K Linos, C Sheehan, J Ross
Memorial Sloan-Kettering Cancer Center, New York, NY; Albany Medical College, Albany, NY

37 Significance of Tumor CD24 and Stromal CD10 Expression in Triple Negative Breast Cancer (285)
S Varghese, N Lill, C Shapiro, WJ Zhao
Ohio State University Medical Center, Columbus, OH

38 GATA-3 Expression in Male and Female Breast Cancers: Comparison of Clinicopathologic Parameters and Outcome (159)
RS Gonzalez, J Wang, H Sullivan, A Adams, C Cohen
Emory University, Atlanta, GA

39 Immunophenotype Profile of Breast Carcinoma Brain Metastases in Comparison to Their Breast Primaries (256)
RS Saad, A El-sayed, A Shehata, M Mashhour, W Hanna
Sunnybrook Health Sciences Centre, Toronto, Canada

40 Type 2 3α/Type 5 1β-HSD (AKR1C3) Is a Negative Regulator of Breast Cancer Proliferation: An Immunohistochemical and In Vitro Study (217)
P Murugan, H-K Lin, W Wu, V Miller, Q Yang, K-M Fung
University of Oklahoma Health Sciences Center, Oklahoma City

41 Cytokeratin Immunohistochemical Profile of Breast Cancer: Do CK7 Negative Breast Carcinomas Exist? (141)
E Eliseaev, R Bhargava
Magee Women’s Hospital of UPMC, Pittsburgh, PA

42 Cytoplasmic Beta-Catenin Expression Associated with Triple Negative and HER2 Positive Breast Cancer Subtypes in African-American Women (144)
AK Esmakula, LJ Ricks-Santi, YM Kannan, TJ Naab
Howard University Hospital, Washington, DC; Howard University Cancer Center, Washington, DC
Sphingosine Kinase Type 1 (SPHK-1) and Sphingosine-1-Phosphate Receptor 1 (SIPR1/EDG1) Positive Breast Carcinomas Are Associated with Increased Incidence of Distant Metastases (248)

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- Expression of O6-Methylguanine DNA Methyltransferase (MGMT) in Midgut and Pancreatic Neuroendocrine Tumors, Solid Pseudopapillary Tumors and Acinar Cell Carcinomas (1870)
- Combined Progesterone Receptor and PTEN Expression Predicts Metastasis and Survival in Patients with Pancreatic Neuroendocrine Tumors (1884)
Comparison of Three Ki-67 Index Quantification Methods and Clinical Significance in Pancreatic Neuroendocrine Tumors (1867)  
TN Oberg, JS Voss, CM Lohse, T-T Wu, TC Smyrk, L Zhang  
Mayo Clinic, Rochester, MN

Comparison of Semi-Quantitative Versus Quantitative Grading System in Endocrine Tumors of the Pancreas: Which One Should Be Applied? (1875)  
B Weynand, I Borbath, C Sempoux, J-F Gigot, A Jouret-Mourin  
Cliniques Universitaires St Luc, Brussels, Belgium

Is Islet 1 (Isl1) a Sensitive and Specific Marker for Pancreatic Neuroendocrine Tumors and Their Metastases (1848)  
RP Graham, B Shresht, BL Caron, TC Smyrk, KL Grogg, RV Lloyd, L Zhang  
Mayo Clinic, Rochester, MN; University of Wisconsin, Madison, WI

Altered ATRX/DAXX Expression and Telomere Length of Pancreatic Neuroendocrine Tumors in MEN-1 Syndrome (1843)  
RF de Wilde, CM Heaply, A Maitra, AK Meeker, BH Edil, CL Wolfgang, T Ellisson, RD Schulic, IQ Molenaar, GD Valk, MR Vriens, IIM Borel Rinkes, GJA Offerhaus, RH Hruban, KE Matsukuma  
Johns Hopkins Medical Institutions, Baltimore, MD; University Medical Center Utrecht, Utrecht, Netherlands; University Medical Center Utrecht, Utrecht, Netherlands

Loss of PTEN Expression Is Associated with Poor Prognosis in Patients with Ampullary Adenocarcinoma (1869)  
The University of Texas MD Anderson Cancer Center, Houston, TX

Expression of Amphiregulin, Epidermal Growth Factor Receptor (EGFR) and Phosphorylated EGFR in Ampullary Carcinoma (1864)  
K Mikhitarian, N Merchant, F Revetta, C Shi  
Vanderbilt University Medical Center, Nashville

Identification of IGPR-1 as a Novel Cell Adhesion Molecule Involved in Tumor Growth and Angiogenesis (1935)  
MN Mehta, RD Meyer, JE Mahoney, K Rezazedeh, N Rahimi  
Boston University School of Medicine, Boston, MA

Development of a Specific, Sensitive and Selective Immunohistochemical Assay for Notch1 Intracellular Domain (N1ICD) Reveals Notch Pathway Activation in Glioblastoma Multiforme and Carcinomas of the Lung and Colon (1930)  
TR Holzer, JM Gronding, AD Fulford, BK Patel, AE Schade, BL Ackermann, RJ Konrad, A Nasir  
Eli Lilly and Company, Indianapolis, IN

Concurrent KRAS, NRAS, and BRAF Mutations in Cancers with PTEN Loss by Immunohistochemistry: Experience with 464 Patients Referred for Phase I Clinical Trials (1913)  
R Bakkar, R Broaddus  
University of New Mexico School of Medicine, Albuquerque, NM; M.D. Anderson Cancer Center, Houston, TX

The C-Terminal Common to Group 3 POTE’s Is a Nucleolar Marker Associated with Cellular Proliferation and Cancer Metastasis (1939)  
S Redfield, Z He, J Mao, S Bigler, X Zhou  
The University of Mississippi Medical Center, Jackson; Tougaloo College, Jackson

Retrospective Analysis of Mutational Frequencies in Primary Versus Metastasis (1952)  
MJ Zenali, Z Liu, GB Mills, D Sui, R Broaddus, S Hamilton  
The University of Texas MD Anderson Cancer Center, Houston, TX

Use of High-Throughput Technology and Immunophenotyping To Assess the Cytoxic and Anti-Cancer Stem Cell Activity of Simvastatin in Various Malignant Neoplasm (1919)  
VB De Souza, GC Franchi, JR AL Renno, PC De Souza, CP Freitas, M Pavanello, AE Nowill, NGM Schenka, RM Rocha, GA Pinto, FA Soares, J Vassallo, AA Schenka  
State University of Campinas (UNICAMP), Campinas, SP, Brazil; Hospital A. C. Camargo/Fund. António Prudente, Sao Paulo, Brazil

Molecular Detection of Metastatic Cancer in Cell-Free Cytocentrifugation Supernatant Fluid from Needle Aspirates of Lymph Nodes (1944)  
AR Smith, JF Silverman, Y Liu, U Krishnamurti, S Bokhari, C Binkert, B Ujevich, A Mahonty, SD Finklestein  
Allegheny General Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Inc., Pittsburgh, PA

Metastasis of Carcinoma to Body Fluids, but Not to Regional Lymph Nodes, Is Associated with Loss of Spectrin Isoforms (1949)  
Y Wang, SN Khader, Y Lo, J Albanese, H Ratech  
Albert Einstein College of Medicine/Montefiore Medical Center, Bronx, NY; Albert Einstein College of Medicine, Bronx, NY

Mutational Analysis of Cytocentrifugation Supernatant Fluid of Pleural Fluid Provides an Independent Means To Differentiate Benign from Neoplastic Disease (1937)  
S Patel, AR Smith, Y Liu, U Krishnamurti, SJ Bokhari, C Binkert, B Ujevich, SD Finklestein, A Mahonty, JF Silverman  
Allegheny General Hospital, Pittsburgh, PA; RedPath Integrated Pathology, Pittsburgh, PA

PCR Based Analysis of Fungal Infection in FFPE Specimens Using the Luminescent Multiplex Panel (1914)  
JD Barker, C Chisholm, DA Smith, K Walker, RS Beissner, M Lopez, A Rao  
Scott & White Memorial Hospital, Temple, TX

HPV Viral Load and In Situ Hybridization Signal Patterns Indicate Diverse Patterns of Dysregulation in Cervical Carcinoma Pathogenesis (1924)  
MF Evans, K Munjal, V Rajendran, CS Adamson, Z Peng, K Cooper  
University of Vermont, Burlington, VT; Sri Aurobindu Institute of Medical Sciences, Indore, Madhya Pradesh, India

The microRNA-Kallikrein Axis of Interaction: A New Dimension in the Pathogenesis of Prostate Cancer (1950)  
NMA White, YM Youssf, K Jung, A Fendler, C Stephen, M Gabriil, GM Yousef  
St. Michael’s Hospital, Toronto, ON, Canada; University of Toronto, Toronto, ON, Canada; University Hospital Charite, Berlin, Germany
NF-Mediator Complex Subunit 1 (MED1): A Common Molecular Pleotrophic Action of Renal Cell Carcinoma Dysregulated mTORC2 Regulates hnrRNPI Phosphorylation and Cytoskeletal Organization in Bladder Cancer Cells

Mediator Complex Subunit 1 (MED1): A Common Molecular Participant in Pancreatic Carcinoma (1948)

NF-κB Mediates Acid-Induced mPGES1 Expression in Barrett’s Esophageal Adenocarcinoma Cells (1916)

Spectrum of PTEN Expression in Non-Pancreatic Carcinomas Is Universal and Independent of ER/PR/Her2 (1928)

Histopathologic and Immunohistochemical Reappraisal of DMBA-Induced Mammary Tumors Revealing a Potential Model for Cancer Stem Cell Pathophysiological and Pharmacological Studies (1920)

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Progestosterone Induces Erk1/2 through an EGFR and G Proteins-Dependent Pathway in MCF-7 Breast Cancer Cells (1915)

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Pathological Findings in Lung Biopsies in Patients with Clinical Suspicion of Pulmonary Graft Versus Host Disease (2054)
LF Xu, C Drachenberg, EJ Britt, AP Burke
University of Maryland Medical Center, Baltimore, MD

FOXP3+ Regulatory T-Cells Are Associated with Acute Rejection in Lung Transplants (2026)
J Pecl, MC Aubry, SM Jenkins, JP Scott, SD Cassivi, AC Roden
Mayo Clinic, Rochester

Protective Effects of Prostaglandin E2 on Pulmonary Vascular Remodeling in Allergic Airway Inflammation (2053)
W Xing, A Lundequist, C Feng, T Liu, JA Boyce
University of Massachusetts Medical School, Worcester, MA; Brigham and Women’s Hospital, Boston, MA

Prognostic Value of O-GlcNAc Modification and Its Related Enzymes in Lung Adenocarcinoma (2037)
O Rouhi, LD Arvanitis, KA Kaiser, S Basu, B Mahon, M Pool, M Liptay, P Bonomi, JA Borgia
Rush University, Chicago, IL

Disease-Free Survival of Patients with NSCLC after Surgical Resection and Correlation with ERCC1 Expression and Genotype (1978)
Y-D Choi, Y-H Kim, Y Kim, J-H Nam
Chonnam National University Medical School, Gwangju, Republic of Korea

Expression of ErbB2 and ErbB3 in Non-Small Cell Lung Cancer (2039)
MT Salcedo, MA Montero, J Hernandez-Losa, C Teisido, H Allende, E Felip, N Murtra-Garrell, E Pallisa, M Canela, S Ramon y Cajal, N Tallada
University Hospital Vall de Hebron, Barcelona, Spain

Expression of Aldo-Keto Reductase Family 1 Member C3 (AKR1C3) in Normal and Neoplastic Lung (2020)
P Murugan, V Miller, H-K Lin, K-M Fung
University of Oklahoma Health Sciences Center, Oklahoma City, OK

ULTRASTRUCTURAL

Role of Ultrastructural Evaluation of Peripheral Blood in Diagnosis of Metabolic Storage Disorders (2172)
J Hicks, E Wartchow, G Mierau
Texas Children’s Hospital & Baylor College of Medicine, Houston, TX; Children’s Hospital of Colorado, Aurora, CO

Alport-Like Changes in Allograft Glomerular Basement Membranes: A Peculiar Manifestation Occurring in a Setting of Pediatric Donor-Adult Recipient Renal Transplantation (2176)
MM Mishra, CMC Crisostomo, JR Lee, H Liapis, GA Youngberg
East Tennessee State University, Johnson City, TN; Mountain States Health Alliance, Johnson City, TN; Washington University School of Medicine, St. Louis, MO

Effect of eNOS Deficiency on Glomerulonephritis in Murine Lupus-Like Model (2173)
J Hicks, T Schoeb, D Bullard
Texas Children’s Hospital & Baylor College of Medicine, Houston, TX; University of Alabama - Birmingham, Birmingham, AL
SHORT COURSES – WEDNESDAY AFTERNOON

Wednesday, March 21, 2012
1:30 – 5:30 PM

Room locations are printed on the Short Course Ticket

A coffee break is scheduled for 3:00 – 4:00 PM to allow time for viewing posters

* indicates this is a new course
++ indicates this is an ending course

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

14 The Diagnosis of Mediastinal Lesions by EBUS-FNA and EUS-FNA: Cytology, Pitfalls and Clinical Implications *
   Sara E. Monaco, MD, University of Pittsburgh Medical Center, Pittsburgh, PA
   Walid E. Khaltub, MD, PhD, University of Pittsburgh Medical Center, Pittsburgh, PA

20 Dermatopathology Greatest Hits: Top Ten Inflammatory and Neoplastic Dermatopathology Lessons Learned (so far) from Academic Consultative Practice *
   Rajiv M. Patel, MD, University of Michigan, Ann Arbor, MI
   Douglas R. Fullen, MD, University of Michigan, Ann Arbor, MI
   May Chan, MD, University of Michigan, Ann Arbor, MI

27 An Algorithmic Approach to the Diagnosis of Tumors and Tumor-Like Lesions of the Urinary Bladder *
   Donna E. Hansel, MD, Cleveland Clinic, Cleveland, OH
   Mahul B. Amin, MD, Cedar-Sinai Medical Center, Los Angeles, CA

31 Endocervical Glandular Lesions of the Female Genital Tract: A Combined Cytologic and Histologic Approach Emphasizing Problematic Areas and Differential Diagnosis *
   Kristen A. Atkins, MD, Stanford University School of Medicine, Stanford, CA
   Christina S. Kong, MD, Stanford University School of Medicine, Stanford, CA
   Teri A. Longacre, MD, Stanford University School of Medicine, Stanford, CA

35 Diagnostic Immunohistochemistry: Plagued with Potential Problems but Pregnant with Possibilities *
   Allen M. Gown, MD, PhenoPath Laboratories, Seattle, WA

39 The Interpretation of the Medical Liver Biopsy: What Do Clinicians Want? *
   Rish K. Pai, MD, PhD, Cleveland Clinic, Cleveland, OH
   Lisa M. Yerian, MD, Cleveland Clinic, Cleveland, OH
   David S. Barnes, MD, Cleveland Clinic, Cleveland, OH

45 Systems Pathology: An Introduction to Omic Approaches in Modern Personalized Pathology *
   Michael H. A. Roehrl, MD, PhD, Boston Medical Center, Boston, MA
   Sylvia L. Asa, MD, University of Toronto, Toronto, ON, Canada
   Massimo F. Loda, MD, Dana Farber Cancer Institute, Boston, MA
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Henry Ford Hospital, Detroit, MI

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C Wang, J Zhang, A Yilmaz, TA Bismar, K Trpkov
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C Hilliges, F Wiklund, P Wiklund, L Egevad
Karolinska Institutet, Stockholm, Sweden

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A Seipel, F Wiklund, P Wiklund, L Egevad
Karolinska Institutet, Stockholm, Sweden

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G Wirth, J Lu, S Wu, DM Dahl, AF Olumi, WS McDougal, RH Young, C-L Wu
Massachusetts General Hospital, Boston, MA
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K Park, F Demichelis, Y-L Chiu, MA Rubin, JM Mosquera
Weill Medical College of Cornell University, New York; University of Trento, Trento, Italy

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S Lee, JJ Epstein
The Johns Hopkins Hospital, Baltimore

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The Jikei University School of Medicine, Minato-ku, Tokyo, Japan

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University of Miami, Miller School of Medicine, Miami, FL

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EJ Fichtenbaum, DL Zynger
The Ohio State University Medical Center, Columbus, OH

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Weill Cornell Medical College, New York

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M Montani, J Gerhardt, G Kristiansen
University of Bern, Bern, Switzerland; University Hospital of Zurich, Zurich, Switzerland; University Hospital Bonn, Bonn, Germany

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JB Kum, MT Idrees, TM Ulbright
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Mayo Clinic, Rochester, MN

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Indiana University School of Medicine, Indianapolis, IN; Polytechnic University of the Marche Region (Ancona) United Hospitals, Ancona, Italy; Cordoba University, Cordoba, Spain; First Affiliated Hospital of Wenzhou Medical College, Wenzhou, China; Case Western Reserve University, Cleveland, OH

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O Fadare, V Parkash
Vanderbilt University, Nashville; Yale University, New Haven, CT

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BT Yang, D Patil
Cleveland Clinic, Cleveland, OH

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The Ohio State University, Columbus, OH

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A C Camargo Cancer Hospital, Sao Paulo, Brazil

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TA Tran, G Niu, CA Tomasello, H Tran, JS Ross, JA Carlson
Florida Hospital, Orlando, FL; Albany Medical College, Albany, NY

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P Manna, S Kerley, R Corder, S Ahmed, P Munyer
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Z Li, M Bansal, B Weng, C Zhao
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A Rao, S Young, B Body, C Eisenhunt, A Sharma, C Behrens
Scott and White Hospital, Temple, TX; TriCore Reference Laboratories/University of New Mexico Health Science Center, Albuquerque, NM; LabCorp, Greensboro/Winston-Salem, NC; Diagnostic CytoLig Lab, Indianapolis, IN; Roche Molecular Systems, Pleasanton, CA

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DA Cohen, RM Austin, C Gilbert, R Freij, C Zhao
Magee-Womens Hospital of University of Pittsburgh Medical Center (UPMC), Pittsburgh, PA

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Y-H Kim, Y-D Choi, S-S Kim, Y Kim, J-H Nam
Chonnam National University Medical School, Gwangju, Republic of Korea

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d Institut Curie, Paris, France, Metropolitan

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M MoghadamFalahi, s Pokharel, H Alatassi
University of Louisville, Louisville, KY

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RA Simon, MR Quddus, C Zhang, MM Steinhoff, WD Lawrence, CJ Sung
Brown University/Women & Infants Hospital, Providence, RI

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M Fukunaga, T Matsumoto, T Kaku, A Sakamoto, H Tsuda
Jikei University Daisan Hospital, Tokyo, Japan; Shikoku Cancer Center, Ehime, Japan; Kyushu University, Fukuoka, Japan; National Cancer Center, Tokyo, Japan; Kyorin University, Tokyo, Japan

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IS Hagemann, D Cao
Washington University School of Medicine, St. Louis, MO

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J-J Wei, P Keh
Northwestern University, Chicago, IL

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D Sidhu, M Duggan, P Clement, C Ewanowich, J Arseneau, M Cesari, M Kobel, G Han
University of Calgary/Calgary Laboratory Services, Calgary, Canada; Vancouver General Hospital, Vancouver, Canada; Royal Alexandra Hospital, Edmonton, Canada; McGill University Health Centre, Montreal, Canada

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Mayo Clinic, Rochester; Abbott Molecular, Des Plaines

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RS Saad, AF Shehata, JF Silverman, N Ismiil, Z Ghorab
Sunnybrook Health Sciences Centre, Toronto, Canada; Allegheny General Hospital, Pittsburgh

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H Liu, H Yin, H Wang, F Lin
Geisinger Medical Center, Danville, PA; UCLA Medical Center, Los Angeles, CA

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P Ramalingam, RP Masand, A Malpica
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Hospital Universitari Arnu de Vilanova , University of Lleida, Irbiileida, Lleida, Spain

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R Broaddus, S Xie, R Bakkar
M.D. Anderson Cancer Center, Houston, TX; University of New Mexico School of Medicine, Albuquerque, NM

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Z Liu, J Liu, J-J Wei
Northwestern University, Chicago; University of Texas, Houston

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BD McMillen, Z Liu, M Aponte, I Helenowski, D Scholtens, B Buttin, J-J Wei
Northwestern University, Chicago, IL

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J Zhang, DY Chang, I Merchado-Urribe, J Liu
The University of Texas MD Anderson Cancer Center, Houston, TX

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A Fischer, D Pham, P Bareiss, C Bachmann, H Neubauer, F Fend, C Lengerke, S Perner, T Fehm, A Staebler
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Japan; Genecare Research Institute Co., Ltd., Kamakura, Kanagawa, Japan

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Trinity College Dublin, Dublin, Ireland

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T Duong, C Adamson, V Rajendran, B Waters, M Evans
Fletcher Allen Health Care, Burlington, VT

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H Wu, Y Toribio, S Cerda, C Sarita-Reyes
Boston Medical Center, Boston, MA

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AS Nugent, S Corr, S Daly, L Keogh, C Martin, K Fitzgerald, LA O’Neill, JJ O'Leary
Coombe Women and Infants University Hospital, Dublin, Ireland; Trinity College Dublin, Dublin, Ireland; University Massachusetts Medical School, Boston, MA

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E Flatley, A Schilling, T Morgan
Oregon Health & Science University, Portland

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MN Saha, J Jiang, H Chang
University Health Network, Toronto, Canada

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Y Yang, Y Ning, H Chang
University Health Network, Toronto, Canada; University of Maryland, Baltimore

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RL King, MT Howard, JM Hodnefield, WG Morice
Mayo Clinic, Rochester, MN

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H Olteanu, AM Harrington, SH Kroft
Medical College of Wisconsin, Milwaukee, WI

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AP Laramore, W-K Chiu, CH Dunphy
University of North Carolina, Chapel Hill, NC

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Y-C Liu, Y Wu, S Mathew, R Niesvizky, R Pearse, A Orazi, S Ely
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DM Reddi, EL Boswell, CM Lu, E Wang
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J Kohan, SL Perkins, A Wilson, S Tripp, ME Salama
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S Ely, A Modin, A Rossi, O Elemento, S Shenker
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C Mosse, A Seegmiller, A Kim, K Kressin
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DP Ng, CS Liang, T Tian, C Yin, KH Young, JL Jorgensen, D Hoehn, R Sargent, RN Miranda, HM Amin, J You, E Schlette, P Lin
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R Setoodeh, L Moscinski, S Razzaque, M Naghashpour
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S Konoplev, SA Wang, JL Jorgensen, T Tian, DP Ng, P Lin
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NHICC, Bethesda, MD; NCI, Bethesda, MD

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NIHCC, Bethesda, MD; NIH, Bethesda, MD

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D Liu, P Lin, Y Hu, L Powers, JL Jorgensen, SA Wang
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D Alapat, D Viswanatha, M Xie, R Lorsbach
UAMS, Little Rock; Mayo Clinic, Rochester; William Beaumont Hospital, Royal Oak

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M Will, L Yin, X Liang
University of Colorado Denver School of Medicine, Aurora, CO

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YX Schmidt, X Liang
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EF Krasik, SJ McAlhany
University of California, San Francisco, San Francisco, CA

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P Pournazari, A Mansoor, F Kosari, X Jiang, I Auer, T Fourie, J Piel, V Lewis, D Demetruck, D Stewart, M-T Shaban-Rad
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J Wayne, JW Hussong, R Alsaheb
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DG Hwang, DM Dorfman, DA Briggs, R Silverio, O Pozdnjakova
Brigham and Women’s Hospital, Boston, MA; Dana Farber Cancer Institute, Boston, MA; Harvard Medical School, Boston, MA

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RL King, CA Hanson, RP Kettelring, DL Van Dyke, PJ Kurtin
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AR Sohoni, A Mahindra, A Khosroshahi, JH Stone, V Deshpande, RP Hasserjian
Massachusetts General Hospital, Boston

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JM Barroso, Z Wang, K Velazquez, A Dulafl-Florea, JZ Gong
Thomas Jefferson University Hospital, Philadelphia, PA

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JA Hipp, G Sharma, JD Hipp, J Cheng, UJ Balis, M Lim, KS Elenitoba-Johnson
University of Michigan, Ann Arbor

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A Quesada, A Tholpady, A Wanger, L Chen
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DG Hoffmann, BH Kim
Wellstar Health System, Marietta, GA

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247 Megakaryocytic Hyperplasia Associated with Granulocyte-Colony Stimulating Factor (1509)
LN Parsons, H Otteanu, SH Kroft, AM Harrington
Medical College of Wisconsin, Milwaukee, WI

248 Improved Identification of Megakaryoblasts by Flow Cytometry Relative to Immunohistochemistry (1496)
K Moser, I Bovio, S Hill, SR Tripp, SL Perkins, DW Bahler
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JM Polski
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SS Chen, JJ Tarrand, V Prieto, P Lin, MH Fernandez, T Hasan, LJ Medeiros, C Bueno-Ramos
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Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA

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L Glaser, A Ziober, LP Wang, KT Monte
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_T Uehara, Y Yuan, M Feldman, A Zieber, H Ota, A Sepulveda_
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_C-C Su, M-N Lin, K-C Tseng_
Buddhist Dalin Tzu Chi General Hospital, Chiayi, Taiwan; Tzu Chi University, Hualien, Taiwan

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_M Deliu, ML Nguyen, CJ Gunthel, MB Mosunjac_
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_JNM Tan, MJ O’Brien, NS Miller, H Xu_
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_E M Linde, GA Talmon, SH Hinrichs, PC Iwen_
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_M Roessle, Y Achermann, D Zimmermann, B Hasse, V Deggim, M Hoffmann, J Grunenfelder, M Hombach_
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_C Barrett, D Houghton, M Troxell_
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_AA Kurien, M Mathew, G Abraham_
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_H-C Yang, A Morden, I Pasan, T Matsusaka, I Ichikawa, AB Fogo_
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Banff Initiative for Quality Assurance in Transplantation (BIFQUIT): Inter-Observer and Inter-Laboratory Reproducibility for C4d Immunohistochemistry in Renal Allografts (1661)
_S Chan, J Climenhaga, P Randhawa, H Regele, Y Kushner, R Colvin, M Mengel_
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_SV Bradsky, KM Ware, A Ozcan, EP Calomeni, G Nadasdy, A Satoskar, T Nadasdy_
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_MP Alexander, JW Gibson, Y Raissian, S Chari, N Takahashi, SH Nasr, S Sethi, TC Smyrk, LD Cornell_
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_K Tsuneyama, M Yazaki, T Minamisaka, K Nagata, H Baba, T Tsuda, K Aoshima_
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_AM Wright, S Patel, A Gaber, R Barrios, L Gaber, L Truong_
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SH Nasr, LD Cornell, ME Fidler, SS Sheikh, AA Amir, S Sethi
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274 Anatomy of the [Non Kimmelstiel-Wilson Nodule (KWN)] Segmental Mesangial Expansion (SME) in Diabetic Glomerulonephropathy (1703)
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275 Pathology of Kidney Injury in Septic Patients (1668)
JP Gaut, O Takasu, PE Swanson, RS Hotchkiss
Washington University School of Medicine, St. Louis, MO; University of Washington, Seattle, WA

276 Reproducibility of the Columbia Classification of Lesions of Focal Segmental Glomerulosclerosis (1679)
SM Meehan, A Chang, I Gibson, L Kim, N Kambham, Z Laszik
University of Chicago, Chicago, IL; University of Manitoba, Winnipeg, Canada; Stanford University, Stanford, CA; University of California San Francisco, San Francisco, CA

277 CD44 Staining Distinguishes Focal-Segmental Glomerulosclerosis (FSGS) from Minimal Change Disease (MCD) in Pediatric Nephrotic Syndrome (1689)
W Sabr, X Zeng
Wayne State University, Detroit, MI

278 The Significance of Tubuloreticular Inclusions (TRIs) in Allograft Kidney Biopsies (1665)
CL Ellis, G Gupta, LC Racusen, LJ Arend
The Johns Hopkins Hospital and School of Medicine, Baltimore, MD

279 Diagnostic Value of Sox9 Staining To Identify Early Recurrence of Focal and Segmental Glomerulosclerosis (FSGS) after Renal Transplant (1690)
W Sabr, D Shi, X Zeng
Wayne State University, Detroit, MI

280 The Significance of IgG4 Positive Plasma Cells in Renal Transplant Biopsies with Plasma Cell Rich Acute Cellular Rejection (1686)
G Rizzuto, T Nguyen, K-Y Jen, Z Laszik
UCSF, San Francisco, CA

281 Renal Extramedullary Hematopoiesis Mimicking Tubulointerstitial Nephritis (1652)
MP Alexander, SH Nasr, PJ Kurtin, LD Cornell
Mayo Clinic, Rochester, MN

282 Upregulated mTOR Pathway in Primary Crescentic Glomerulonephritis (1714)
PL Zhang, F Dumbar, MT Rooney, W Li
William Beaumont Hospital, Royal Oak, MI

283 Molecular Expression of Podocytes in the Variants of Focal Segmental Glomerulosclerosis (1704)
LA Testagrossa, R Azevedo Neto, V Woronik, DMC Malheiros
Hospital das Clinicas da Faculdade de Medicina da USP, Sao Paulo, SP, Brazil; Faculdade de Medicina da USP, Sao Paulo, SP, Brazil

284 JC Virus Infection in Renal Transplant Patients: Correlation with Urine Cytology, Molecular (PCR) Analysis and Clinical Findings (1701)
D Smith, C Chisholm, R Khode, K Walker, J Gildon, L Sayage-Rabie, A Rao
Scott and White Hospital, Temple, TX

285 Staphyloccal Infection Associated Glomerulonephritis Mimicking Henoch-Schönlein Purpura (1695)
AA Satoskar, R Shim, S Brodsky, G Nadasdy, L Hebert, T Nadasy
Ohio State University Medical Center, Columbus, OH

286 Prevalence of Leukocyte Chemotactic Factor-2 (LECT-2) in Renal Amyloidosis (1698)
S Sethi, AB Fogo, P Paukeksakon
Mayo Clinic, Rochester, MN; Vanderbilt University, Nashville, TN

287 Renal Biopsy in the Very Elderly: Analysis of 833 Native Renal Biopsies (1664)
S Dhingra, PD Walker, R Zhang, C Larsen
UT-Health, Medical School, Houston, TX; Nephropath, Little Rock, AR

288 Immunofluorescence Patterns in IgA Nephropathy and Their Significance (1691)
SN Salaria, MM Estrella, LJ Arend
Johns Hopkins University, Baltimore, MD

289 The Banff Schema for Allograft Pathology: Revisiting Scoring Paradigms for Inflammation and Tubulitis (1678)
L Liu, P Randhawa
University of Pittsburgh, Pittsburgh

290 Endothelial Protein C Receptor Is Upregulated during Acute and Chronic Antibody-Mediated Rejection in Renal Allografts (1683)
T Nguyen, G Rizzuto, K-Y Jen, Z Laszik
University of California San Francisco, San Francisco, CA

291 Intrarenal Bile Casts in Hepatorenal Syndrome: A Common and Underrecognized Finding (1708)
CM van Slambrouck, SM Meehan, A Chang
The University of Chicago Medical Center, Chicago, IL

292 Integrin alpha-v-beta 6 Protein Expression in Human Renal Allograft Biopsies: A Marker of Nephron Distress (1680)
M Mengel, S Chan, K Famulski, J Chang, J Reeve, S Violette, P Weinreb, P Halloran
University of Alberta, Edmonton, Canada; Stromedix Inc., Boston; Biogen Idec Inc., Boston

293 Tubulointerstitial Nephritis in Common Variable Immunodeficiency (1684)
Y Raissian, SH Nasr, PJ Kurtin, S Sethi, TC Smyrk, LD Cornell
Mayo Clinic, Rochester, MN
295 Production of Control Slides for BK Virus Immunostaining/In-Situ Hybridization Using Voided Urine; a Practical Solution for the Renal Pathologist (1666)
Y Elshenawy, J Ferris, J Preiszner, PS Randhawa, GA Youngberg
East Tennessee State University, Johnson City, TN; University of Pittsburgh, Pittsburgh, PA

296 Cryoglobulinemic Nephropathy: Spectrum of Clinical and Immunomorphologic Manifestations (1671)
GA Herrera, EA Turbat-Herrera
Nephrocor, Orlando, FL

297 Renal Biopsy Findings of Diabetic Nephropathy in Pediatric Patients with Type I Diabetes Mellitus (1692)
SP Salvatore, SV Seshan
Weill Cornell Medical College, New York City

298 Assessing Graft Rejection by Automated C4d and CD34 Quantitation and Co-Localization (1705)
JE Tomaszewski, T Baradet, CC Hoyt, JR Mansfield, M Feldman
University of Pennsylvania Health System, Pennsylvania, PA; Caliper Life Sciences, Hopkinton, MA

299 Sox9 Staining Detects Focal-Segmental Glomerulosclerosis (FSGS) in Pediatric Steroid Resistant Nephrotic Syndrome (1713)
X Zeng
Wayne State University, Detroit, MI

300 2,8 Dihydroxyadeninuria — A Renal Biopsy Case Series (1663)
LN Cossey, E Chukwuma, S Nasr, CP Larsen
University of Arkansas for Medical Sciences, Little Rock, AR; Nephrology Associates of Dayton, Dayton, OH; Mayo Clinic, Rochester, MN; Nephropath, Little Rock, AR

301 Transplant Glomerulopathy and Dual Disease: An Uncommon Occurrence in Renal Allograft Biopsies (1669)
S Gottipati, S Wagner, E Vasquez-Martel, J Gaut, H Liapis
Washington University, St Louis, MO; Complejo University Hospital, La Coruna, Spain

302 Effect of Sirolimus and Cyclosporine on Regulatory T Cells in Renal Transplant Allograft (1677)
W Li, FL Zhang
William Beaumont Hospital, Royal Oak, MI

303 Progressing Amyloid Light Chain (AL) Deposits in the Kidney in Patients with Autologous Hematopoietic Stem Cell Transplant for Monoclonal Gammapathy (1687)
R Roth, T Nadasdy, A Satoskar, G Nadasdy, L Hebert, SV Brodsky
The Ohio State University, Columbus, OH

304 Influence of Functionally Active Plasma Cells in Acute Cellular Rejection in Renal Allografts (1712)
X Zeng, D Shi, S Sethi, M Doshi, Z Bhat
Wayne State University, Detroit, MI

305 Interstitial Eosinophilic Aggregates Is Distinctly More Common in Diabetic Nephropathy Than Other Glomerulopathies (1694)
K Sasaki, K Smith, R Nicosia, CE Alpers, B Najafian
University of Washington Medical Center, Seattle

306 Facilitation of Renal Allograft Biopsy Evaluation by Using Combined CD3 and PAS Special Stains (1711)
Z Yu, J Frazier, WF Korn, M Turman
University of Oklahoma, Oklahoma City, OK

Clinico-Pathological Findings in Iranian Elderly Kidney Patients – A Case Series Study (1654)
M Asgari, S Ossareh, S Savaj, E Abdi, Y Ataipour, T Malakoutian
Hasheminejad Clinical Research Developing Center (HCRDC), Tehran University of Medical Sciences (TUMS), Tehran, Islamic Republic of Iran; Firoozgar Hospital, Tehran University of Medical Sciences (TUMS), Tehran, Islamic Republic of Iran

OPHTHALMIC

Squamous Cell Lesions of the Conjunctiva: Evaluation of Current Grading Systems and Patho-Epidemiological Survey of Patients in Blantyre, Malawi (1830)
KL Golden, DA Milner
Brigham and Women’s Hospital, Boston, MA

Association of Chlamydophila Psittaci in Cases of Ocular Adnexal MALT Lymphoma (1837)
G Tumer, H Fernandes, A Seth, N Mirani
UMDNJ-University Hospital, Newark, NJ

Expression of Sonic Hedgehog Signaling Pathway Related Proteins in Retinoblastoma (1829)
J-Y Ho, J Troncoso, C Eberhart
The Johns Hopkins Hospital, Baltimore, MD

Expression of Gender Differences and Estrogen and Progesterone Receptor Expression in Uveal Melanoma (1836)
L Schoenfield, MB Turell, P Carver, S Mackie, R Tubbs, A Singh
Cleveland Clinic, Cleveland, OH

Expression of No Expression of Proteins Associated with Alzheimer’s Disease and Parkinson’s Disease in Retina and Lens (1831)
C-Y Ho, J Troncoso, C Eberhart
The Johns Hopkins Hospital, Baltimore, MD

Association of No Expression of Proteins in Retinoblastoma (1837)
G Tumer, H Fernandes, A Seth, N Mirani
UMDNJ-University Hospital, Newark, NJ

Orbital Hamartomatous Mesenchymal Lesions in Adults: An Entity To Be Considered (1833)
P Jimenez, J Fernandez, C Delbene, C Dinares, R Medel, S Ramon y Cajal, P Huguet
Vall Hebron Hospital, Barcelona, Spain

Accuracy of Frozen Section in the Intraoperative Diagnosis of Ophthalmic Diseases (1835)
J Parikh, R Huerto, Y-C Chang, S McCormick, C Iacob, T Milman
University of Tennessee, Memphis, TN; The New York Eye and Ear Infirmary, New York, NY

Lymphoid Enhancing Factor-1(lef-1) Gene Mutation in Eyelid Sebaceous Carcinoma (1832)
P Jayaraj, S Sen, A Rai, K Chosdol, S Sharma, S Kashyap, N Pushker
AIIMS, New Delhi, India; NCDC, Delhi, India

Primary Signet-Ring/Histiocytoid Carcinoma of the Eyelid (1834)
A Layne, M Richard, J Woodward, AD Proia, TJ Cummings
Duke University Health System, Durham, NC
EVENING SPECIALTY CONFERENCE

Cytopathology

Wednesday, March 21, 2012
7:30 – 9:30 PM
Convention Centre 301-305

Moderator:
PAUL E. WAKELY, MD
The Ohio State Univ/Medicine
Columbus, OH

Panelists:
LESTER J. LAYFIELD, University of Utah, Salt Lake City, UT
JAN F. SILVERMAN, West Penn Allegheny Gen Hosp, Pittsburgh, PA
DINA R. MODY, The Methodist Hospital, Houston, TX
DAVID CHHIENG, Yale University School of Medicine, New Haven, CT

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EVENING SPECIALTY CONFERENCE

Hematopathology

Wednesday, March 21, 2012
7:30 – 9:30 PM
Convention Centre 211-214

Leaving Lymphomas: Loving Leukemias and Making-Out with Myeloid Malignancies

Moderators
ADAM BAGG, MD
Univ of Pennsylvania
Philadelphia, PA

Panelists:
DANIEL A. ARBER, Stanford Univ Med Ctr, Stanford, CA
SA WANG, UT MD Anderson Cancer Ctr, Houston, TX
ATTILIO ORAZI, Weill Medical Coll/Cornell Univ, New York, NY

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EVENING SPECIALTY CONFERENCE
Neuropathology
Wednesday, March 21, 2012
7:30 – 9:30 PM
Convention Centre 220-222
Surgical Neuropathology: Lessons Learned from Dr. Bernd Scheithauer

Moderator:

DANIEL J. BRAT, MD, PhD
Emory Univ Hosp
Atlanta, GA

Panelists:
arie perry, University of California, San Francisco, San Francisco, CA
Rebecca D. FolkERTH, Brigham & Women’s Hosp, Boston, MA
EyAs M. hATTAB, Indiana University, Indianapolis, IN
Gregory N. Fuller, MD Anderson Cancer Center, Houston, TX
Caterina Giannini, Mayo Clinic, Rochester, MN

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SHORT COURSES – THURSDAY MORNING
Thursday, March 22, 2012
8:00 – 11:30 AM

Room locations are printed on the Short Course Ticket

A coffee break is scheduled for 9:30 – 10:00 AM

* indicates this is a new course
++ indicates this is an ending course

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

10 Practice of Breast Pathology in 2012 and Beyond *
Aysegul Sahin, MD, The University of Texas MD Anderson Cancer Center, Houston, TX
Lavinia P. Middleton, MD, The University of Texas MD Anderson Cancer Center, Houston, TX

22 Modern Prostate Needle Biopsy Interpretation
Samson W. Fine, MD, Memorial Sloan Kettering Cancer Center, New York, NY
Peter A. Humphrey, MD, Washington University Medical Center, St Louis, MO

25 Common Diagnostic Problems in Head and Neck Tumors: A Combined Cytologic and Surgical Pathology Approach ++
Laila Dahmoush, MD, University of Iowa, Iowa City, IA
Robert Robinson, MD, PhD, University of Iowa, Iowa City, IA

26 Modern Approach to the Diagnosis and Classification of Myeloid Neoplasms ++
Daniel A. Arber, MD, Stanford University School of Medicine, Stanford, CA
Attilio Orazi, MD, FRCPATH, Weill Cornell Medical College, New York, NY

34 Utility and Pitfalls of Immunohistochemistry in the Daily Diagnosis of Gynecologic Pathology *
Esther Oliva, MD, Massachusetts General Hospital, Boston, MA
Carmen Tornos, MD, Stony Brook University Hospital, Stony Brook, NY

42 Common Questions in Thoracic Pathology Consultation Practice ++
Sanja Dacic, MD, PhD, University of Pittsburgh Medical Center, Pittsburgh, PA
Mary Beth Beasley, MD, Mount Sinai Medical Center, New York, NY

43 Pathology of Hereditary Cancer ++
Russell R. Broadus, MD, PhD, MD Anderson Cancer Center, Houston, TX
Stanley R. Hamilton, MD, MD Anderson Cancer Center, Houston, TX
Alexander Lazar, MD, PhD, MD Anderson Cancer Center, Houston, TX
Michael Gilcrease, MD, MD Anderson Cancer Center, Houston, TX
Christopher P. Crum, MD, Brigham and Women’s Hospital, Boston, MA

47 Glomerular Diseases: Differential Diagnosis, Histologic Variants and New Classifications *
Mark Haas, MD, PhD, Cedars-Sinai Medical Center, Los Angeles, CA
Anthony Chang, MD, University of Chicago Medical Center, Chicago, IL

51 Infectious Disease Pathology: A Practical Approach for General Surgical Pathologists
Dan Milner, MD, The Brigham & Women’s Hospital, Boston, MA
Laura W. Lamps, MD, University of Arkansas Medical Sciences, Little Rock, AR

53 Diagnoses and Dilemmas in Pancreaticobiliary Pathology: Neoplasms, Mimics, and Staging in Lesions of the Pancreas, Ampulla of Vater, and Gallbladder
Susan C. Abraham, MD, The University of Texas MD Anderson Cancer Center, Houston, TX
Alyssa M. Krasinskas, MD, University of Pittsburgh Medical Center, Pittsburgh, PA

59 Non-Melanocytic Mimics of Melanoma: Problems in Differential Diagnosis ++
Thomas Brenn, MD, Western General Hospital and The University of Edinburgh, Edinburgh, Scotland
Jason Hornick, MD, PhD, Brigham & Women’s Hospital and Harvard Medical School, Boston, MA

60 Lean Quality Improvement: A Practical Approach
Stephen S. Raab, MD, University of Washington, Seattle, WA and Memorial University of Newfoundland, St. John's, NL, Canada
Maxwell L. Smith, MD, Mayo Clinic, Scottsdale, AZ
SHORT COURSES – THURSDAY AFTERNOON

Thursday, March 22, 2012
1:00 – 4:30 PM

Room locations are printed on the Short Course Ticket

A coffee break is scheduled for 2:30 – 3:00 PM

* indicates this is a new course
++ indicates this is an ending course

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

16 Thyroid FNA: Using the Bethesda System Category Definitions and Terminology
Edward B. Stelow, MD, University of Virginia, Charlottesville, VA
Edmund S. Cibas, MD, Brigham and Women’s Hospital and Harvard Medical School, Boston, MA
William C. Faquin, MD, PhD, Massachusetts General Hospital and Harvard Medical School, Boston, MA

17 Difficult Diagnoses in Endocrine Pathology
Ricardo V. Lloyd, MD, PhD, University of Wisconsin School of Medicine and Public Health, Madison, WI
Lori A. Erickson, MD, Mayo Clinic, Rochester, MN

19 Inflammatory Disorders of the Gastrointestinal Tract: Similarities and Differences Between Adult and Pediatric Disease ++
Jeffrey D. Goldsmith, MD, Beth Israel Deaconess Medical Center, Children’s Hospital Boston and Harvard Medical School, Boston, MA
Robert M. Najarian, MD, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA

30 A Potpourri of Mesenchymal Delights: A Pattern-Oriented Approach to the Diagnosis of Soft Tissue Tumors ++
John R. Goldblum, MD, Cleveland Clinic, Cleveland, OH
Scott E. Kilpatrick, MD, Pathologists Diagnostic Services, Novant Health Systems, Winston-Salem, NC

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

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 Robinson, MD, PhD, Carver College of Medicine and College of Dentistry, University of Iowa, Iowa City, IA
Steven D. Vincent, DDS, Carver College of Medicine and College of Dentistry, University of Iowa, Iowa City, IA

48 Mediastinal Tumors: A Practical Approach *
Cesar A. Moran, MD, MD Anderson Cancer Center, Houston, TX
Saul Suster, MD, Medical College of Wisconsin, Milwaukee, WI

52 Of Critical Value: Management and Leadership Skills for the Anatomic Pathologist *
Lewis A. Hassell, MD, University of Oklahoma Health Sciences Center, Oklahoma City, OK
Michael L. Talbert, MD, University of Oklahoma Health Sciences Center, Oklahoma City, OK

55 Tubulointerstitial and Vascular Diseases of the Kidney: Introduction and Update *
Patrick D. Walker, MD, NephroPath, Little Rock, AR
Samih H. Nasr, MD, Mayo Clinic, Rochester, MN
Christopher Larsen, MD, NephroPath, Little Rock, AR

57 Ophthalmic Pathology: A Look Through the Window to the World
Thomas J. Cummings, MD, Duke University Medical Center, Durham, NC
Michele M. Bloomer, MD, University of California San Francisco, San Francisco, CA
Patricia Chevez-Barrios, MD, The Methodist Hospital, Houston, TX

58 Diffuse Lung Disease: Is It Neoplastic or Not? Or Maybe Both?
M. Christine Aubry, MD, Mayo Clinic, Rochester, MN
Henry Tazelaar, MD, Mayo Clinic, Scottsdale, AZ

61 Transplant Pathology of Solid Organs: A Practical Diagnostic Approach
Rene P. Michel, MD, CM, McGill University and McGill University Health Center, Montreal, QC, Canada
Chantal Bernard, MD, McGill University and McGill University Health Center, Montreal, QC, Canada
EVENING SPECIALTY CONFERENCE
Breast Pathology
Thursday, March 22, 2012
7:30 – 9:30 PM
Convention Centre 301-305
Mimics in Breast Pathology

Moderator:
LAURA C. COLLINS, MBBS
Beth Israel Deaconess MC
Boston, MA

Panelists:
MELINDA F. LERWILL, Mass General Hospital, Boston, MA
JUAN P. PALAZZO, Jefferson University, Philadelphia, PA
KIMBERLY H. ALLISON, Univ of WA Med Ctr, Seattle, WA
FOUAD BOULOS, American Univ/Beirut, Beirut, Lebanon
JEAN F. SIMPSON, Vanderbilt Univ Med Ctr, Nashville, TN

EVENING SPECIALTY CONFERENCE
Dermatopathology
Thursday, March 22, 2012
7:30 – 9:30 PM
Convention Centre 220-222
Technical Problems in Dermatopathology

Moderator:
MARK ROBERT WICK, MD
Univ of Virginia Health System
Charlottesville, VA

Panelists:
Problems with Histotechnology in Dermatopathology: Their Causes and Consequences
ZSOLT B. ARGENYI, Univ of Washington, Seattle, WA

Pitfalls in the Use of In-Situ Hybridization in Dermatopathology
BORIS BASTIAN, University of California-San Francisco Medical Center, San Francisco, CA

Recent Advances in Laboratory-Systems Engineering and Their Applications to Dermatopathology
A. NEIL CROWSON, Regional Medical Lab, Tulsa, OK

Pitfalls and Misuses Associated with "Molecular" Technology in Dermatopathology, Especially Concerning Lymphoreticular Disease
JOAN GUITART, Northwestern University, Chicago, IL

Immunohistology in Dermatopathology: Problem Areas
MARK ROBERT WICK, Univ of Virginia Health System, Charlottesville, VA

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EVENING SPECIALTY CONFERENCE
Gastrointestinal Pathology
Thursday, March 22, 2012
7:30 – 9:30 PM
Convention Centre Ballroom B
Gastrointestinal Pathology at the 4 Corners of the World

Moderator:

GREGORY Y. LAUWERS, MD
Mass General Hospital
Boston, MA

Panelists:

JOEL GREENSON, Univ/Michigan Hospitals, Ann Arbor, MI
THOMAS S. SLAVIK, AmPath, Pretoria, South Africa
IAN S. BROWN, Envoi Pathology, Herston, Queensland, Australia
VIKRAM DESHPANDE, Massachusetts General Hospital, Boston, MA
MARCO NOVELLI, University College London, London, United Kingdom

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SHORT COURSES – FRIDAY MORNING

Friday, March 23, 2012
8:00 – 11:30 AM

Room locations are printed on the Short Course Ticket

A coffee break is scheduled for 9:30 – 10:00 AM

* indicates this is a new course
++ indicates this is an ending course

05  Practical Cardiovascular Surgical Pathology ++
John P. Veinot, MD, University of Ottawa, Ottawa, ON, Canada
Jagdish Butany, MD, University of Toronto, Toronto, ON, Canada
William D. Edwards, MD, Mayo Clinic, Rochester, MN
Dylan Miller, MD, University of Utah, Salt Lake City, UT

11  Practical Informatics - The Basics ++
John Sinar d, MD, PhD, Yale Medical School, New Haven, CT

21  Biopsy Pathology of Gastrointestinal Neoplasia
Ana E. Bennett, MD, Cleveland Clinic, Cleveland, OH
Thomas Plesec, MD, Cleveland Clinic, Cleveland, OH
John Goldblum, MD, Cleveland Clinic, Cleveland, OH

23  Frequently Encountered Diagnostic Dilemmas in Genitourinary Pathology - A Practical Immunohistochemical Approach ++
Jim Zhai, MD, University of Cincinnati, Greater Cincinnati Pathologists, Inc., Cincinnati, OH
Ximing J. Yang, MD, PhD, Northwestern University Feinberg School of Medicine, Chicago, IL

36  Germ Cell Tumors, Sex Cord-Stromal Tumors and Other Non-Epithelial Tumors of the Ovary
Joseph T. Rabban, MD, University of California San Francisco, San Francisco, CA
Charles Zaloudek, MD, University of California San Francisco, San Francisco, CA
Glenn McCluggage, FRCPath, Royal Group of Hospitals Trust, Belfast, Northern Ireland

38  Molecular Testing in Cancer: Moving into a New Era of Practice ++
George M. Yousef, MD, PhD, FRCP, St. Michael’s Hospital, and the University of Toronto, Toronto, ON, Canada
Serge Jothy, MD, PhD, FRCP, St. Michael’s Hospital, and the University of Toronto, Toronto, ON, Canada

44  Practical Placental Pathology: A Systematic Approach
Rebecca N. Baergen, MD, New York-Presbyterian Hospital, Weill-Cornell Medical College, New York, NY
Cynthia G. Kaplan, MD, State University of New York at Stony Brook, Stony Brook, NY

49  Diagnostic Hematopathology - A Roadmap for the Surgical Pathologists
James R. Cook, MD, PhD, Cleveland Clinic, Cleveland, OH
Marsha C. Kinney, MD, University of Texas Health Science Center, San Antonio, TX
Steven H. Swerdlow, MD, University of Pittsburgh School of Medicine, Pittsburgh, PA

50  Practical Approach to the Diagnosis of Pediatric Solid Tumors ++
David Parham, MD, University of Oklahoma, Oklahoma City, OK
Joseph Khoury, MD, Quest Diagnostics and Nevada Cancer Institute, Las Vegas, NV

54  A Practical Approach to Non-Neoplastic Surgical Neuropathology
Bette K. Kleinschmidt-DeMasters, MD, University of Colorado at Denver and Health Sciences Center, Aurora, CO
Richard A. Prayson, MD, Cleveland Clinic Foundation, Cleveland, OH

63  New Concepts in the Diagnosis and Classification of Extranodal Lymphomas ++
Yaso Natkunam, MD, PhD, Stanford University School of Medicine, Stanford, CA
Eric D. Hsi, MD, Cleveland Clinic Foundation, Cleveland, OH
Daniel A. Arber, MD, Stanford University School of Medicine, Stanford, CA

64  Orthopaedic Pathology - Pitfalls, Problems and Pratfalls ++
Andrew E. Rosenberg, MD, Massachusetts General Hospital, Boston, MA
Alan L. Schiller, MD, The Mount Sinai Hospital, New York City, NY
SHORT COURSES – FRIDAY AFTERNOON

Friday, March 23, 2012
1:00 – 4:30 PM

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A coffee break is scheduled for 2:30 – 3:00 PM

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++ indicates this is an ending course

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

08 Glandular Lesions in Liquid-Based Pap Test: Diagnostic Dilemmas and Potential Pitfalls ++
Rana S. Hoda, MD, FIAC, Weill Cornell Medical College, New York, NY
Syed A. Hoda, MD, Weill Cornell Medical College, New York, NY

18 Endocrine Pathology: An Interactive Approach ++
Virginia A. LiVolsi, MD, Hospital of University of Pennsylvania, Philadelphia, PA
Zubair W. Baloch, MD, PhD, Hospital of University of Pennsylvania, Philadelphia, PA
Sylvia L. Asa, MD, University Health Network, Toronto, ON, Canada

29 Practical Issues in the Diagnosis, Staging and Reporting of Prostatic Adenocarcinoma
Jesse K. McKenney, MD, Stanford University, Stanford, CA
Lawrence D. True, MD, University of Washington, Seattle, WA

40 Challenging Melanocytic Neoplasms: How To Approach Their Diagnosis ++
Victor G. Prieto, MD, PhD, UT-MD Anderson Cancer Center, Houston, TX
Christopher R. Shea, MD, University of Chicago Medical Center, Chicago, IL
Jon A. Reed, MD, CellNetix Pathology and Laboratories, Seattle, WA

56 Morphologic, Immunohistochemical and Molecular Analysis in the Diagnosis of Soft Tissue Tumors: An Integrated Approach ++
Andrea T. Deyrup, MD, PhD, Pathology Associates of Greenville, Greenville, SC
Elizabeth A. Montgomery, MD, Johns Hopkins University, Baltimore, MD
United States and Canadian Academy of Pathology
(United States-Canadian Division of the International Academy of Pathology)

PAST PRESIDENTS

1907-08  James Carroll  
1908-10  W. G. MacCallum  
1910-13  A. S. Warthin  
1913-15  R. M. Pearce  
1915-16  A. S. Warthin  
1916-20  O. Klotz  
1920-21  W. M. L. Coplin  
1921-22  James Ewing  
1922-24  F. B. Mallory  
1924-29  James F. Coupal  
1929-32  H. E. Robertson  
1932-33  George R. Callender  
1933-34  Victor Jacobsen  
1934-36  William Boyd  
1936-38  V. H. Cornell  
1938-39  Carl V. Weller  
1939-40  James E. Ash  
1940-41  Tracy B. Mallory  
1941-42  William H. Feldman  
1942-47  Samuel R. Haythom  
1947-48  Ralph D. Lillie  
1948-49  Everett L. Bishop  
1949-50  James E. Ash  
1950-51  G. Lyman Duff  
1951-52  Granville A. Bennett  
1952-53  James B. McNaught  
1953-54  Averill A. Liebow  
1954-55  Harold L. Stewart  
1955-56  Jesse E. Edwards  
1956-57  Edward B. Smith  
1957-58  William O. Russell  
1958-59  Chapman H. Binford  
1959-60  Robert E. Stowell  
1960-61  F.W. Wiglesworth  
1961-62  Benjamin Castleman  
1962-63  John B. Hazard  
1963-64  J. Lowell Orbison  
1964-65  David E. Smith  
1965-66  Henry D. Moon  
1966-67  A. James French  
1967-68  Robert H. More  
1968-69  Joshua L. Edwards  
1969-70  Edward A. Gall  

1970-71  T.C. Jones  
1971-72  William Christopherson  
1972-73  F.K. Mostofi  
1973-74  Nathan Kaufman  
1974-75  Richard E. Palmer  
1975-76  Murray R. Abell  
1976-77  Jack M. Layton  
1977-78  Benjamin F. Trump  
1978-79  Jack P. Strong  
1979-80  William Hartmann  
1980-81  Kenneth M. Earle  
1981-82  Leland D. Stoddard  
1982-83  Bernard M. Wagner  
1983-84  F. Stephen Vogel  
1984-85  David M. Robertson  
1985-86  Robert McCluskey  
1986-87  John Yardley  
1987-88  Robert Leader  
1988-89  Ronald S. Weinstein  
1989-90  Cecilia Fenoglio-Preiser  
1990-91  David F. Hardwick  
1991-92  Costan W. Berard  
1992-93  Peter A. Ward  
1993-94  Ramzi S. Cotran  
1994-95  Hector Battifora  
1995-96  William Gardner  
1996-97  Richard Kempson  
1997-98  Sharon Weiss  
1998-99  Elaine S. Jaffe  
1999-00  Harvey Goldman  
2000-01  Deborah Powell  
2001-02  Ronald DeLellis  
2002-03  Louis P. Dehner  
2003-04  Virginia A. LiVolsi  
2004-05  Ricardo V. Lloyd  
2005-06  Sylvia L. Asa  
2006-07  Henry D. Appelman  
2007-08  Christopher P. Crum  
2008-09  Victor E. Reuter  
2009-10  Richard J. Zarbo  
2010-11  Stuart J. Schnitt  
2011-12  Gregory N. Fuller
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1951-52 Harold Stewart 1999-2011 Fred G. Silva
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Maude Abbott Lecturers

1958 E. Uehlinger 1986 Paul E. Lacy
1959 Charles V. Harrison 1987 Emmanuel Farber
1961 Niels Dungal 1989 Leopold G. Koss
1962 Isaac Costero 1990 Emanuel Rubin
1963 M. El Gazayerli 1991 Guido Majno
1964 V. Ramalingaswami 1992 Robert E. Scully
1965 James F. Murray 1993 Ronald F. Dorfman
1966 Nils Ringerzt 1994 Morris Karnovsky
1967 Henry Ugar 1995 Juan Rosai
1968 Herwig Hamperl 1996 Ramzi S. Cotran
1969 Tomizo Yoshida 1997 Charles S. Hirsch
1970 Pelayo Correa 1998 Louis P. Dehner
1971 Harold L. Stewart 1999 Richard Kempson
1972 Benjamin Castleman 2000 Rodger Haggitt
1973 Chapman H. Binford 2001 Sharon Weiss
1974 Edward A. Gall 2002 Peter Isaacson
1978 Erkki A. Saxen 2006 Anna-Luise Katzenstein
1979 F. K. Mostofi 2007 Virginia A. LiVolisi
1980 Walter Sandritter 2008 Christopher D.M. Fletcher
1981 Lauren V. Ackerman 2009 Michael Gimbrone
1982 Raffaele Lattes 2010 Henry Appelman
1983 Robert H. Heptinstall 2011 Elaine S. Jaffe
1984 William Christopherson 2012 Robert J. Kurman
1985 Kenneth M. Brinkhous

Nathan Kaufman Timely Topics Lecturers

1985 Robert Leader 2000 Peter M. Howley
1986 James W. Curran 2001 James Madara
1987 Ronald Weinstein 2002 Lance Liotta
1988 Cecilia Fenoglio-Preiser 2003 Irving L. Weissman
1989 Jay A. Levy 2004 David H. Walker
1990 Philip Leder 2005 Phillip Sharp
1991 Stanley Cohen 2006 Tyler Jacks
1992 W. French Anderson 2007 Steven L. Kunkel
1993 Judah Folkman 2008 Frank McKeon
1994 Francis Collins 2009 Todd Golub
1995 Eric J. Stanbridge 2010 Anthony Atala
1996 Anthony Epstein 2011 Guillermo J. Tearney
1997 Raymond L. White 2012 Bogdan A. Czerniak
Ramzi Cotran Young Investigator Award

1996  James R. Downing
1997  Christopher D.M. Fletcher
1998  Cheryl L. Willman
1999  Lawrence Weiss
2000  Mary Sunday
2001  Ralph Hruban
2002  Frederic G. Barr
2003  Julia A. Bridge
2004  Mark A. Rubin

1996  James R. Downing
2005  Marc Ladanyi
1997  Christopher D.M. Fletcher
2006  Kojo S.J. Elenitoba-Johnson
1998  Cheryl L. Willman
2007  Arul M. Chinnaiyan
1999  Lawrence Weiss
2008  Anirban Maitra
2000  Mary Sunday
2009  Christine Iacobuzio-Donahue
2001  Ralph Hruban
2010  Jorge S. Reis-Filho
2002  Frederic G. Barr
2003  Arul M. Chinnaiyan
2004  Anirban Maitra
2005  Shuji Ogino
2006  Kojo S.J. Elenitoba-Johnson
2007  Arul M. Chinnaiyan
2008  Anirban Maitra
2009  Christine Iacobuzio-Donahue
2010  Jorge S. Reis-Filho
2011  Shuji Ogino
2012  Cristina Antonescu

F.K. Mostofi Distinguished Service Award

1977  Harold L. Stewart
1978  Chapman H. Binford
1979  Robert E. Stowell
1980  Joshua L. Edwards
1981  Benjamin Castleman
1982  Jack M. Layton
1983  Richard E. Palmer
1984  Murray R. Abell
1985  Robert H. More
1986  Leland D. Stoddard
1987  F. Stephen Vogel
1988  Jack P. Strong
1989  Benjamin F. Trump
1990  Nathan Kaufman
1991  Kamal G. Ishak
1992  Kenneth Earle
1993  Bernard M. Wagner
1994  David Hardwick
1995  Harvey Goldman
1996  Emanuel Rubin
1997  Cecilia M. Fenoglio-Preiser
1998  Costan W. Berard
1999  William A. Gardner
2000  Fred G. Silva
2001  Virginia LiVolsi
2002  Robert Pascal
2003  Elaine S. Jaffe
2004  Donald A. Antonioli
2005  Ronald A. DeLellis
2006  Richard J. Zarbo
2007  Victor E. Reuter
2008  Richard Fraser
2009  Jeffrey L. Myers
2010  John Eble
2011  Sylvia L. Asa
2012  Celeste N. Powers

Distinguished Pathologist Award

1988  Hans Popper
1989  Earl P. Benditt
1990  Arthur T. Hertig
1991  Stanley L. Robbins
1992  Emmanuel Farber
1993  Wallace H. Clark
1994  Franz Enzinger
1995  Henry Rappaport
1996  Raffaele Lattes
1997  Elson B. Helwig
1998  Robert E. Scully
1999  David C. Dahlin
2000  John H. Yardley
2001  Margaret Billingham
2002  Andrew G. Huvos
2003  Kamal G. Ishak
2004  David F. Hardwick
2005  Ramzi Cotran
2006  USCAP Staff

2002  William Hartmann
2003  Richard L. Kempson
2004  Daria Haust
2005  Kalman Kovacs
2006  J. Bruce Beckwith
2007  Robert D. Collins
2008  Harvey Goldman
2009  Peter Burger
2010  Nathan Kaufman
2011  Bernard M. Wagner
2012  Louis P. Dehner
2013  Juan Rosai
2014  Stephen S. Sternberg
2015  Steven G. Silverberg

President’s Award

2001  Ramzi Cotran
2002  Ruth Kirschstein and Alan Rabson
2003  Kamal G. Ishak
2004  David F. Hardwick
2005  Andrew G. Huvos
2006  USCAP Staff
2007  James P. Crimmins
2008  Jack Perry Strong
2009  JoAnn Q. Johnson
2010  Jeffrey L. Myers
2011  Fred G. Silva
2012  Robin Cooke
F. Stephen Vogel Award

2001 Pei Hui
2002 Ilene B. Bayer-Garner
2003 Dinesh Rakheja
2004 Robert Pu
2005 Dylan V. Miller
2006 Rohit Bhargava

2007 Donna E. Hansel
2008 Jeremy Wallentine
2009 Samantha L. Butler
2010 Ibrahim Batal
2011 José Gaal

Castleman Award

1981 Roger Warnke
1982 William E. Beschormer
1983 Renato V. Iozzo
1984 George F. Murphy
1985 Ann D. Thor
1986 Lawrence M. Weiss
1987 James T. Kurnick
1988 John Anastasi
1989 Stephen Chalmer Peiper
1990 Ivan Stamenkovic
1991 Peter A. Humphrey
1992 Giorgio Ingrahami
1993 Timothy J. McDonnell
1994 Cheryl L. Willman
1995 Marc Ladanyi
1996 Frederic G. Barr

1997 Sarah S. Frankel
1998 Jeffrey K. Taubenberger
1999 Irina Lubensky
2000 Daniel J. Brat
2001 Todd Kroll
2002 David G. Huntsman
2003 Jerome T. O’Connell
2004 Anirban Maitra
2005 Andrew P. Weng
2006 Arul M. Chinnaiyan
2007 Adebowale Joel Adeniran
2008 Laurence de Leval
2009 Kirsten D. Mertz
2010 Adeboye Osunkoya
2011 Anthony Gill
2011 Jiaqi Shi
2011 - 2012
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Victoria Hann [USCAP Staff]
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The USCAP Ambassadors have been chosen to help us disseminate information about the Academy and its educational programs to house staff, fellows, and colleagues at their institutions.

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<td>Tucker, J. Allan</td>
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<td>Weinstein, Ronald S.</td>
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COMPANION SOCIETIES AND OFFICERS

American Association of Neuropathologists
Raymond Sobel, President
John M. Lee, Vice-President
Charles White, President Elect
Elizabeth J. Cochran, Vice President Elect
C. Harker Rhodes, Secretary/Treasurer

American Association of Ophthalmic Oncologists and Pathologists
Deepak P. Edward, President
David Wilson, Past President
Hans Grossniklaus, President Elect
Patricia Chevez Barrios, Secretary/Treasurer
USCAP - AAOP Committee members - J Douglas Cameron, Patricia Cheves-Barrios Hans Grossniklaus

American Society for Clinical Pathology
C. Bruce Alexander, President
Joel M. Shilling, President-Elect
Steven H. Kroft, Vice President
Kenneth Emancipator, Treasurer
William G. Finn, Secretary
John E. Tomaszewski, Immediate Past President

American Society of Cytopathology
Nancy A. Young, President
Hormoz Ehya, Past President
Lydia Howell, President-Elect
Edmund Cibas, Secretary/Treasurer

American Society of Dermatopathology
Zsolt B. Argenyi, President
Jennifer M. McNiff, President-Elect
Mark A. Hurt, Secretary-Treasurer
Earl J. Glusac, Immediate Past-President

American Society for Investigative Pathology
Martha B. Furie, President
Charles A. Parkos, Past-President
Elizabeth R. Unger, President-Elect
James M. Musser, Vice President
William B. Coleman, Secretary-Treasurer
Asma Nusrat, Program Committee Chair
Mark E. Sobel, Executive Officer

Arthur Purdy Stout Society of Surgical Pathologists
Christopher D.M. Fletcher, President
John Goldblum, Past President
Elizabeth Anne Montgomery, President-Elect
Barry R. DeYoung, Secretary
Peter A. Humphrey, Treasurer

Association for Molecular Pathology
Iris Schrijver, President
Timothy O’Leary, Past-President
Stanley Cohen, Secretary-Treasurer
Daniel H. Farkas, Program Committee Chair

Binford-Dammin Society of Infectious Disease Pathologists
Mike Wilson, President
Ann Nelson, Past President
Daniel Zander, President-Elect
Jeannette Guarner, Secretary/Treasurer
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Stephen N. Bauer, President
Stanley J. Robboy, President-Elect
Gene N. Herbek, Secretary-Treasurer

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George Kontogeorgos, president
Ronald Ghossein, Past President
Thomas Giordano, Secretary / Treasurer

Rodger C. Haggitt Gastrointestinal Pathology Society
Alyssa Krasinskas, President
Sanjay Kakar, President elect
Barbara McKenna, Past President
Rhonda Yantiss, Vice president
Mathew Yeh, Training Committee Chair
Rhonda Yantiss & Galen Cortina, Chair Education Committee
Hala EL-Zimaity, Secretary/Treasurer

Hans Popper Hematopathology Society
David E. Kleiner, President
Matthew Yeh, Vice President
Kay M. Washington, Past President
Elizabeth Brunt, Secretary-Treasurer

History of Pathology Society
Mark R. Wick, President
J. Allan Tucker, Secretary/Treasurer

International Society of Bone & Soft Tissue Pathology
Shinichiro Ushigome, President
Christopher D.M. Fletcher, Past-President
John S.J. Brooks, Secretary
Andrea T. Deyrup, Treasurer

International Society of Breast Pathology
Ann Thor, President
Aysegul Sahin, Past-President
Timothy W. Jacobs, Secretary
Elizabeth Wiley, Treasurer

International Society of Gynecological Pathologists
C. Simon Herrington, President
Richard Zaino, President-Elect
Wilson Glenn McCluggage, Secretary
Teri A. Longacre, Treasurer
Elvio G. Silva, Past-President

International Society of Urological Pathology
Rodolfo Montironi, President
Peter Humphrey, President-Elect
John Srigley, Past-President
Lars Egevad, Secretary
Ming Zhou, Treasurer

North American Society of Head and Neck Pathology
Bruce M. Wenig, President
Manju Prasad, Vice President / President Elect
Mary S. Richardson, Secretary
Nasser Said Al-Naief, Treasurer
Samir K. El-Mofty, Past President

Paleopathology Club
Enrique Gerszten, Program Co-Chairman
Pedro L. Fernandez, Program Co-Chairman
Papanicolaou Society of Cytopathology
Lester Layfield, President
Zubair Baloch, President-Elect
Martha Bishop Pitman, Past President
David Chhieng, Secretary
Eric Suba, Treasurer
Members at large: Britt-Marie Ljung, Philip Viehl, Tarik Elsheikh Andrew field, Matt Zarka, Daniel Kurtycz

Pulmonary Pathology Society
Donald Guinee, President
Philip Cagle, Past President
Elisabeth Brambilla, Vice President
Timothy Allen, Secretary
Kevin Leslie, Treasurer
Sanja Dacic, Program Committee Chair

Renal Pathology Society
Guillermo Herrera, President
Volker Nickeleit, Vice President
Harsharan Singh, Secretary
Neeraja Kambham, Treasurer

Society for Cardiovascular Pathology
John P. Veinot, President
Richard Mitchell, Vice-President, President-Elect
Sylvio Litovsky, Treasurer
Barbara A. Sampson, Secretary
Michael Fishbein, Past-President
Robert Mitchell, Programming Chair

Society for Hematopathology
Jonathan W. Said, President
Marsha C. Kinney, Vice President/President-Elect
Sherrie L. Perkins, Secretary/Treasurer
LoAnn C. Peterson, Past President

Society for Ultrastructural Pathology
David N. Howell, President
Guillermo A. Herrera, Past-President
Victor L. Roggli, President-Elect
Eric Wartchow, Secretary
J. Allan Tucker, Treasurer
Josep Lloreta-Trull, Councillor for Europe
Susan Brammah, Councillor for Australasia
Sara E. Miller, Councillor for America
Gary Mierau, Historian

Society for Pediatric Pathology
Kathleen Patterson, President
Linda Margraf, President-Elect
Jeffrey Goldstein, Past-President
Sara Vargas, Secretary-Treasurer

American College of Veterinary Pathology
Derek Moiser, President
Claire B. Andreasen, President-Elect
Michael J. Topper, Secretary-Treasurer

Association for Pathology Informatics
Ronald S. Weinstein, President
Raymond D. Aller, President-Elect
Myra L. Wilkerson, Past-President
Anand S. Dighe, Vice President
Philip J. Boyer, Secretary-Treasurer
RECOGNITION AWARDS – 2012

By action of Council, a Recognition Award was established to acknowledge services of individuals who have completed elective or appointive positions. The following individuals are to be honored for terms of service ending in 2011.

**PRESIDENT**
Stuart J. Schnitt

**COUNCIL**
Allen M. Gown
Frances P. O’Malley
Mary S. Richardson

**EDUCATION COMMITTEE**
Christina Isaacson, Short Course Coordinator
Marie-Christine Aubry
Scott Kilpatrick
Jesse McKenney
Michael Morgan
Esther Oliva

**LONG COURSE DIRECTORS**
Jeffrey L. Myers
Anna-Luise A. Katzenstein

**SPECIALTY CONFERENCE MODERATORS**
Andrew Rosenberg
Stuart Schnitt
Eva Wojcik
Steve Tahan
John Cheville
Mary Richardson
David Louis

**SHORT COURSE FACULTY**
Geza Acs
Mahul B. Amin
Rita D’Angelo
Ulysses G. J. Balis
Steven D. Billings
Christine Booth
Elizabeth M. Brunt
Longwen Chen
Arthur H. Cohen
Laura C. Collins
Jenny Cotton
Laurence De Leval
John Eble
Tarik M. Elsheikh
Linda D. Ferrell
Thomas J. Flotte
David Grignon
Meera R. Hameed
Donna E. Hansel
Nancy Lee Harris
Robert P. Hasserjian
Kim Hiatt
Aliya N. Husain
Jennifer E. Hunt
Timothy W. Jacobs
Sanjay Kakar
Grace E. Kim
Michael J. Klein
Robert J. Kurman
Thomas J. Lawton
Alberto Marchevsky
Michael Morgan
Cynthia C. Nast
Volker Nickeleit
Raymond W. Redline
Carol Reynolds
Marie E. Robert
Brigitte M. Ronnett
Stuart J. Schnitt
Jan F. Silverman
Harsharan K. Singh
Robert A. Soslow
J. Thomas Stocker
Henry D. Tazelaar
Carmen Tornos
Thomas A. Ullman
Russell Vang
Donald L. Weaver
Mark R. Wick
Eva M. Wojcik
Matthew M. Yeh
Richard J. Zarbo
I. Call to Order

II. Introduction

III. Minutes of the 2011 Business Meeting
   (Published in the 2012 program book)

IV. Report of the President
    a. General Information
    b. Recognition Awards

V. Report of the Secretary-Treasurer/Executive Vice-President

VI. Report of the Finance Committee

VII. Report of the Foundation

VIII. Report of the Education Committee

IX. Report of the Publications Committee

X. Report of Membership Committee

XI. Report of the Nominating Committee

XII. Report of Innovative Educational Products Committee

XIII. Election of Officers

XIV. Installation of the President to take office April 1, 2012

XV. Presentation of the President’s Medal to the Past-President

XVI. IAP Gold Medal Presentation
     Future IAP Congresses
     a. Cape Town, South Africa, 2012
     b. Bangkok, Thailand, 2014

XVII. Other Business

XVIII. Adjournment
The meeting was called to order by Dr. Stuart Schnitt, President.

The agenda of the meeting was adopted as printed on page 230 of the program book. Minutes of the previous business meeting held in Washington, DC on Tuesday, March 23, 2010 were approved as printed in the 2011 program book.

Dr. Schnitt acknowledged dignitaries in attendance and recognized those people that have provided an enormous amount of support to the Academy and are honored by receiving Recognition Awards from the Academy for service rendered ending in 2010 (page 229).

The President’s report was presented by Dr. Schnitt. He started by saying that this was a momentous year for the Academy and for him personally. There were a number of highlights from the past year including: The planning for the 100th Meeting, the EVP search, Strategic Planning Initiative, efforts in philanthropy and the Juan Rosai Collection.

Planning for the 100th meeting began over 2 years ago, and Dr. Schnitt acknowledged the members of the committee who worked very hard to plan all the events including Sylvia Asa, Jennifer Hunt, Jeff Myers, Victor Reuter, Richard Zarbo, and Jerry Crockett along with Dr. Schnitt. Many special events took place including a run for Cancer Cure to benefit our host city, San Antonio, and the San Antonio American Cancer Society. An Opening Ceremony was held Saturday Evening. This was followed by a gala dinner event Monday night featuring Sir Ken Robinson, which was phenomenally successful, and sold out with over 650 people in attendance. Thank you to Jeff Myers and Jay Hess from the University of Michigan for helping to subsidize the dinner by supporting Ken Robinson’s visit.

The Art Show Tuesday Evening was mentioned by Dr. Schnitt, and he encouraged everyone to attend. He also acknowledged Jean Silva for putting together the Hall of President’s that was on display in the Exhibition Hall and was quite a tribute to our legacy.

The major event of the year was the EVP search. With Dr. Fred Silva stepping down as EVP after serving for 12 years, a Search Committee chaired by Richard Zarbo was formed. Others on that committee included Stuart Schnitt, Greg Fuller, Elaine Jaffe, Richard Kempson, Victor Reuter and Jerry Crockett. Several candidates were interviewed and a unanimous decision identified Fred’s successor. Dr. Schnitt was very pleased to announce that the next EVP of the USCAP will be Bruce Smoller.

Dr. Schnitt reminded attendees of the 5 strategic pillars of the Academy that were identified in last year’s President’s report. He stated that we had come further along in our strategic planning process this year by identifying 5 corresponding task forces that were established. They are the Innovative Educational Products Committee chaired by Jeff Myers, the Finance Committee chaired by Jonathan Epstein, the Organizational Structure/Governance of the Academy Committee co-chaired by Victor Reuter and Stuart Schnitt, the Organizational/Structure of the Central Office chaired by David Hardwick and the Resident Engagement Committee chaired by Steve Black-Schaffer. These committees issued their reports and recommendations during the past year to an oversight committee and then were approved by Council. As a result, several new committees were implemented such as the Membership Committee chaired by Linda Ferrell and a Resident Advocacy Committee chaired by Laura Collins.

Attendees were reminded of the numerous opportunities for CME/SAMs available the Academy Educational offerings on the website. One major event available this year through a lot of hard work by Dr. Silva is that the Academy has partnered with 18 of its Companion Societies to issue joint documents. These documents indicate the sub-specialty area in which CME credits have been obtained and are jointly issued by the Society and the Academy.

Dr. Schnitt went on to discuss the numerous opportunities for philanthropy within the Academy and the numerous purposes it serves. One special philanthropic effort is the Fred Silva Legacy Fund. This fund honors Dr. Silva’s inspiring academy leadership, and it resides within the USCAP Foundation. This Fund began last year with an anonymous seed gift of $25,000, and through generosity of members of the Academy, this fund now stand at around $110,000.

Another event during the year that Dr. Schnitt spoke about was the Juan Rosai collection. This is collection is a partnership between USCAP and Aperio, and Victor Reuter had a lot to do with getting this going. The Juan Rosai collection contains 19,000 cases in his collection that have been digitized and annotated and are available online for the pathology community at no charge. The President’s report was adopted by motion, second, and vote.

The Secretary-Treasurer/Executive Vice President’s report was presented by Dr. Fred Silva. He announced that it was a fabulous year. We had over 4,200 registering physician pathologists attend the Annual Meeting here in San Antonio, and we’re closing in on Boston’s all time record numbers. He called everybody’s attention to the 8-10 newsletters available on the website (www.uscap.org) which contains information about what’s going on in the Academy.

He reported that membership in the Academy has climbed and doubled in the last 20 years, and there have been 6,800 junior members recruited in the last 11 years. The Annual Meeting is the largest in the world of physician pathologists, and for the 3rd year in a row we have over 4,000 registrants onsite. We have a 75% increase in submitted abstracts, and this year we have the largest number of onsite scientific abstracts in the history of the world. We’ve had a 75% increase in the number of Companion Societies, and we have 2 new ones coming onboard for 2012 (American College of Veterinary Pathologists and Association for Pathology Informatics). We’ve received two industry awards for record growth in Exhibitors/
Exhibit Booths in the last several years and will probably receive our 3rd one. The USCAP website which has reached 33,500 unique individuals in over 180 countries continues to grow. The website figures for 2010 include 78.5 million hits, 6.5 million page views, and 33,586 unique visitors. Our altruism has reached over 80 countries not counting the website, and our journals are 2 of the top 4 or 5 of their type in impact factor in the world. Membership hasn’t changed a lot in terms of the pieces of the pie. We have 60% that are regular members, 21% junior members, 14% Emeritus and 5% sustaining members. Each year, for the last 6 years, we’ve had between 800-1,100 residents at the Annual Meeting. We continue to have a healthy number of new members both regular and junior. If you look at contributors to the meeting, not just registrants here, but abstract authors etc. we have about 7,000 pathologists involved in one form or another in this meeting. For members who can’t come to the meeting, we have the virtual meeting on the website. The Knowledge Hub will be receiving some PR in an upcoming issue of Human Pathology which was written by David Hardwick, John Sinard and Fred Silva. This educational tool contains Short Courses, Evening Specialty Conferences, Companion Meetings, etc., and is all available for free by world renowned educators in pathology, all since 2002. The USCAP was the 1st with SAMs (Self-Assessment Modules) and we have the largest number of them available. The dual document form involving the Academy and 18 Companion Societies will be available soon. Attendees will be able to push a button to obtain a complete certificate as well as a document for any of the 18 organ sub-specialties offered, if they have attended one of the joint Companion Societies Meeting.

Dr. Siva gave insight into the meeting he attended with the New Executive Committee just this morning, and he stated he had never seen a meeting like that before. There was so much energy, passion and so many ideas being thrown out that he didn’t know what to write down. He concluded by saying that with the four parts of “your family organization” (faculty, the Augusta Office, the present/future leadership and Bruce Smoller), “You ain’t seen nothing yet!” The Secretary-Treasurer/Executive Vice President’s report was adopted by motion, second, and vote.

Dr. John Goldblum, Chairman of the Education Committee, presented the report of the Education Committee. He started by saying that the financial status of the Academy is strong. During the Committee’s Annual Meeting, documents including the operating budget, past budgets and the standing assets were reviewed, and he’s proud to report as of the end of the 2009-2010 fiscal year, our financial status was significantly stronger. We survived the down turn in the economy in 2008 relatively unscathed and have rebounded very strongly. The source of revenue for our Academy remains first and foremost the life blood, the educational events and in particular in addition to the courses the Annual Meeting. A Significant portion, and an ever growing portion of our Annual Meeting income, derives from the exhibitors. In addition, we receive support from membership dues and both journals contribute strongly to our financial status. Additionally, there is no more sincere gesture of loyalty to the Academy then the gifting from you its members. We are doing very well in the Sustaining the Academy Foundation Fund, Friends of Africa Fund and the newly created Fred Silva Fund. Dr. Banks encouraged attendees to please think of the Academy in terms of their philanthropy. The Academy has invested all of its endowment funds through the assistance of Merrill Lynch-Bank of America financial advisory services. The report of the Finance Committee was accepted by motion, second, and vote.

Dr. Silva asked the audience to stand as he announced the names of members, friends, colleagues, and part of our professional family that are no longer with us except in spirit. They are: Melvin W. Anderson, John Balis, A.F. Brown, Gissur Brynjolfsson, Nevenka Gould, Dimon Hirschl, Grover Hutchins, Guido Majno, Robert G. Reed, Allen Rose, Luis Salinas-Madrigal, Mark A. Smith, and Robert Wissler. He then asked for a moment of silence in their honor.

Dr. Celeste Powers presented the Foundation Report in lieu of Drs. Ruben and Epstein who were unable to attend. The mission statement was acknowledged, which is “The role of the USCAP Foundation is to support the mission of the USCAP through fund raising focused on education and research that will benefit the field of pathology and the patients we serve.” Dr. Powers stated that we have a great Foundation Board with diverse backgrounds and a ton of enthusiasm, so we should be looking for great things to come from this committee in the future years. We start with a very healthy Foundation corpus including over $600,00 in restricted funds, $80,000 in unrestricted funds for the Foundation use, and close to $200,000 in temporarily restricted funds which are used for rewards. She ended by saying the tag line for the Foundation “Together, We Are Sustaining Pathology’s Future.” The Foundation report was accepted by motion, second, and vote.

Dr. John Goldblum, Chairman of the Education Committee, presented the report of the Education Committee. He started by saying that he had been in practice 18 years and has spent 13 years on the Education Committee all of which have been with Dr. Silva. He went on to say that the Education Committee is really the heart and soul committee of the USCAP putting together in large part the Annual meeting. He thanked the 22 individuals including 2 Housestaff members and recognized the 7 members with ending terms which are Marie-Christine Aubry, Ann Folkins (one of the Housestaff members), Christina Isacson especially thanked her for serving as the Short Course Coordinator for the past 4 years, Scott Kilpatrick, Michael Morgan, Esther Oliva, and David Shaffer (the other Housestaff member).

Dr. Goldblum described some of the offerings at the Annual Meeting which include 61 Short Courses, 3 Special Courses on Molecular Pathology (including a new Introductory Molecular pathology course which was highly successful), a new Special Course on Cytology, and the Long Course. This year we received 85 Short Course proposals, of which we could only accept 22, but we’re finding new ways to accept some of the other fantastic proposals. Almost 2,700 abstracts were submitted this year of which 1960 were presented at the meeting. The acceptance rate was 73%, and Dr. Goldblum said he was most proud that almost 60% of those had a Pathologist-In-Training as the 1st author. We are paying more attention to Housestaff, as we should, and trying to reach out to junior members so they become regular members for the long haul. Events for Housestaff include the Fellowship Fair, Hospitality Room, Housestaff Specialty Conference, Special Courses specifically for Housestaff, residents awards and the new Resident Advisory Committee.
Courses outside the Annual Meeting include Practical Pathology Seminars which Dr. Goldblum is the course director. This course is comprised of some of the best ending Short Courses and is held over several days. The 2011 Meeting will be held in Las Vegas. The Summer Diagnostic Pathology course is a week long course covering nearly all topics in surgical pathology, and the Diagnostic Cytopathology course which is a long weekend course held in January. All of these courses are available for CME or SAM credits. Another great opportunity for CME and SAM credits is available through the eAcademy on the website and in particular the Anatomic Pathology Electronic Case Series (APECS). The report of the Education Committee was accepted by motion, second, and vote.

Dr. Ronald DeLellis presented the report of the Publications Committee and he started out by saying that this was the most successful year for both journals. We began an association with Nature Publishing Group in 2004 and it has been a very productive relationship. *Modern Pathology and Laboratory Investigation* each offer 4 full pages of color and the quality of color reproduction is quite outstanding. *LI* has been under the leadership of Dr. Gene Siegal for almost 3 years. His editorial group includes 2 Senior Associate Editors, a group of 13 Associate Editors including members from Europe and Asia and an outstanding Editorial Board. Dr. Catherine Ketcham continues to serve as Managing Editor of this journal. The recent impact factor is 4.602 which is an increase for the 6th straight year. Features of the journal include Inside *LI* which presents brief summaries and illustrations from each of the articles, Nature.com pathology highlights some of the pathology related papers in other journals published by nature and includes Pathology In Focus which presents a series of review paper including original research articles and editorials which are extremely helpful. Dr. Siegal developed an editorial internship program in order to give scientists in training hands on experience as reviews. *LI* is among the top 2 journals devoted to general experimental pathology.

Dr. DeLellis talked about *Modern Pathology* and how it continues to be one of the leading diagnostic pathology journals. Dr. John Eble Editor in Chief who is serving his 3rd term along with his Senior Associate Editor and 5 Associate Editors have done a remarkable job with the journal. The impact factor is 4.406 which is a significant increase from 3.75 4 years ago, and we continue to make progress with our impact factor. Based on the most recent impact factor, *MP* is now the leading journal devoted to general diagnostic, anatomic/surgical pathology. Congratulations for all the efforts of the Editorial Board for this honor. Submission rates for new papers continues to be strong with more than 500 for *LI* and more than 800 for *MP* with acceptance rates of about 30% for *LI* and 26% for *MP*. It’s clear that our journals are making an enormous impact in the sciences. The website for *LI* had nearly ½ a million page views in the past year, and *MP* was in excess of 1 million. There were more than 360,000 full text views for *LI* and more than 850,000 full article views for *MP*. Abstract views continue to be very high for both journals, and the numbers reflect the high quality of the journals. The turnaround time for manuscripts is quite excellent and online publication occurs within 30 business days for 84% of the papers. The time to print is 79 days for *LI* and 82 days for *MP*. Dr. DeLellis thanked Dr. Silva for all his efforts on behalf of *MP* and *LI* and the Publication Committee.

As Chairman of the Nominating Committee, Dr. Richard Zarbo submitted the following slate of nominees: President-Elect, Dr. Linda Ferrell, and Vice-President, Dr. Jeffrey Myers. Dr. Zarbo was pleased announce your selection of the new members of Council: Dr. Adam Bagg, Dr. Joel Greenson and Dr. Esther Oliva. There being no nominations from the floor, it was moved to close nominations and officers were declared elected.

Dr. Gregory Fuller was introduced as the Academy’s new President, to take office April 1, 2011. Dr. Schnitt presented a new gavel to Dr. Fuller. Dr. Schnitt recognized Dr. Richard Zarbo and his many accomplishments as President by a presentation of the Academy’s Past-President’s medal.

Dr. David Hardwick reported on the IAP future Congresses. The upcoming IAP Congress in 2012 is in Cape Town, South Africa, and the website is active. The 2014 Congress is in Bangkok, Thailand, and the process has begun to look at the 2016, 2018, and 2020 meetings.

Dr. Hardwick invited the Chairman of the Gold Award Committee of the IAP, Dr. Antonio Llombart-Bosch, to make his presentations of the gold medals. The 2010 gold medal winners were Dr. Juan Rosai and Dr. Florabel Mullick.

Dr. Schnitt reported on the 5K Run and Walk held to raise money for the San Antonio chapter of the American Cancer Society. This was the 1st event of its kind and our way of thanking San Antonio for hosting our Annual Meeting. Over 50 people participated in this event. The event raised $3,500 and a check was presented to the Director of Distinguished Giving for the San Antonio Chapter of the American Cancer Society.

Dr. Schnitt asked if there was any other business. He thanked Dr. Silva for his encouragement and support over the year and stated he couldn’t have done this without him.

The meeting was adjourned at 4:00 PM.