



The Newsletter of the Department of Pathology and Laboratory Medicine at NewYork-Presbyterian Hospital/Weill Cornell Medical Center

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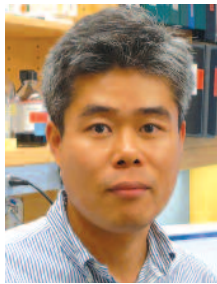
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2013 CME Conference Calendar

Research Highlights

by David P. Hajjar, PhD

New Researcher Joins Department: Focus on Lipid Metabolism



Ann-Hwee Lee, PhD

Dr. Ann-Hwee Lee received a bachelor's degree in Biology from KAIST in Korea in 1990, and a doctorate in Molecular Virology in 1996 from POSTECH, a private university in Korea dedicated to research and education in science and technology. After working for 5 years in POSTECH and Samsung Biomedical Research Institute, he moved to the USA in 2001 for post-doctoral training in Dr. Laurie Glimcher's laboratory in Harvard School of Public Health. Dr. Lee was promoted to a Research Scientist in 2006, and then to an Assistant Professor position at Harvard School of Public Health in 2010. Dr. Lee joined the Weill Cornell Medical College as an Assistant Professor in September, 2012. He is funded by the NIH, and has published 30 research papers in his field of study.

When Dr. Lee started his work in the United States as a post-doc, the major focus in the laboratory at that time was on transcription factors controlling the developmental program of lymphocytes. By the time he finished his post-doc work, they reported an interesting finding that the transition of mature B lymphocytes into antibody-secreting plasma cells is blocked in mutant mice lacking XBP1, a transcription factor cloned in the same laboratory. Dr. Lee became further interested in XBP1, and has been investigating the physiological roles of XBP1 and the underlying molecular mechanisms.

Dr. Lee's Research Interests

His laboratory now focuses on two transcription factors, XBP1 and CREBH. He studies the signaling pathways that control

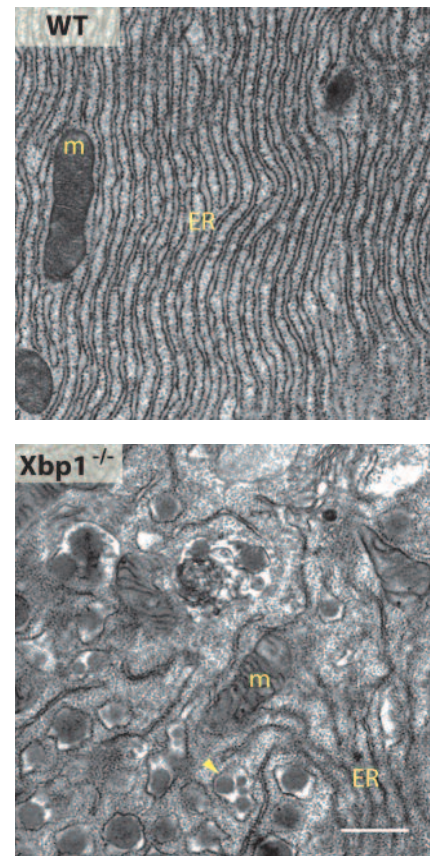


Figure 1: XBP1 is essential for the development of secretory cells. Transmission electron micrographs of WT and XBP1 deficient pancreatic acinar cells. ER, endoplasmic reticulum; m, mitochondria, arrowhead, immature secretory granules. Scale bar = 500nm.

their activation, and their physiological functions. XBP1 is an important transcription factor for the development of secretory cells, and the ER stress response pathway (Figure 1). XBP1 is activated during the development of highly secretory cells by its upstream enzyme, IRE1. XBP1 induces a variety of genes involved in protein secretory *continued on page 2*

Research Highlights

continued

pathway such as ER chaperones, and it promotes ER expansion. Consistent with these molecular functions of XBP1, ablation of XBP1 in mice severely impairs the development of professional secretory cells such as plasma B cells and pancreatic acinar cells. His lab aims to further investigate the regulatory mechanisms leading to XBP1 activation, and the physical and functional interaction of XBP1 with other factors governing the cellular secretory function.

Interestingly, he found that mutant mice lacking XBP1 in the liver exhibit drastically low plasma triglyceride and cholesterol levels without fat accumulation in the liver, indicating that XBP1 plays a crucial role in hepatic lipogenesis (Figure 2). This novel function of XBP1 appears to be unrelated to its role in ER expansion and protein secretion, as XBP1 deficient hepatocytes do not exhibit morphological signs of ER dysfunction, defects in apoB100 secretion, increased apoptosis, or activation of XBP1 independent stress markers. Instead, they found that the expression of key lipogenic enzyme genes was reduced in XBP1 deficient liver, implicating that XBP1 directly and indirectly controls the induction of critical genes involved in fatty acid and sterol biosynthesis. Remarkably, IRE1a specifically cleaved mRNAs of several important genes regulating lipogenesis and lipoprotein metabolism. Thus, the decrease of plasma lipids in XBP1 deficient mice involves two distinct mechanisms; direct transcriptional regulation of lipogenic genes by XBP1, and the degradation of mRNAs by hyperactivation of IRE1a.

Dysregulation of lipid metabolism increasing plasma cholesterol and triglyceride levels is closely associated with coronary artery disease (CAD), obesity and type 2 diabetes. Identifying novel proteins participating in lipid metabolism, which may lead to a clinical improvement in prognosis and effective therapies for human dyslipidemia and CAD is a high priority. A long-term goal of Dr. Lee's research is to understand the molecular mechanisms by which IRE1 and XBP1 control lipid metabolism in concert with other metabolic regulators, which might uncover a novel strategy to treat dyslipidemias.

CREB-H belongs to a group of ER transmembrane transcription factors that include SREBPs and ATF6, which are synthesized as precursor forms anchored to the ER membrane. To be transported to the nucleus to carry out their function as transcription factors, they have to be cleaved by site 1 (S1P) and

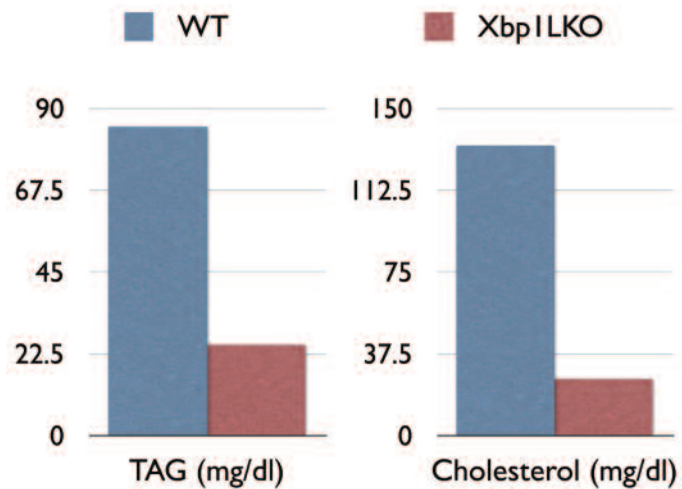


Figure 2: Plasma triglyceride and cholesterol levels are drastically reduced in the mutant mice lacking XBP1 in the liver.

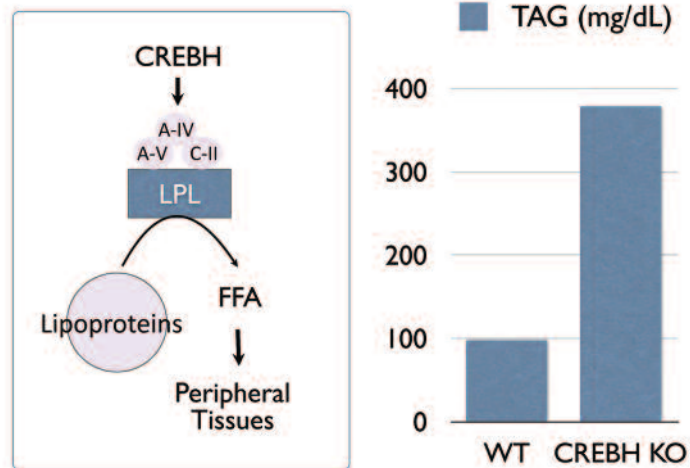


Figure 3: Schematic representation of the role of CREBH in the regulation of plasma TG levels. In liver and small intestine, CREBH induces apolipoproteins that facilitates LPL mediated TG clearance from circulation.

site 2 (S2P) proteases in Golgi apparatus. It has been shown that ER stress and low sterol levels activate ATF6 and SREBPs, respectively, by promoting their translocation to the Golgi apparatus. CREB-H is also activated by a sequential cleavage by S1P and S2P, but the signal that triggers the mobilization of CREB-H to Golgi is unknown. CREB-H is highly and selectively expressed only in the liver and the small intestine. He recently demonstrated that CREB-H induces the apolipoproteins that are crucial for LPL-mediated TG clearance, and CREBH deficient mice have marked hypertriglyceridemia, secondary to a defect in TG clearance (Figure 3).

In the next few years, Dr. Lee will focus on the molecular mechanisms of CREB-H in the regulation of triglyceride metabolism. He will also investigate the functional relationship between CREB-H and other important transcription factors and coactivators regulating lipid metabolism, such as SREBPs and PPARs. He will also examine the role of CREB-H in dietary and genetic models of metabolic diseases, such as steatosis, dyslipidemia and atherosclerosis. These studies should define novel signaling pathways that may lead to the discovery of potential targets for developing novel therapeutics for lipid metabolism disorders.

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Research Highlights

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Dr. Shim Joins Department: Focus on Bone Research

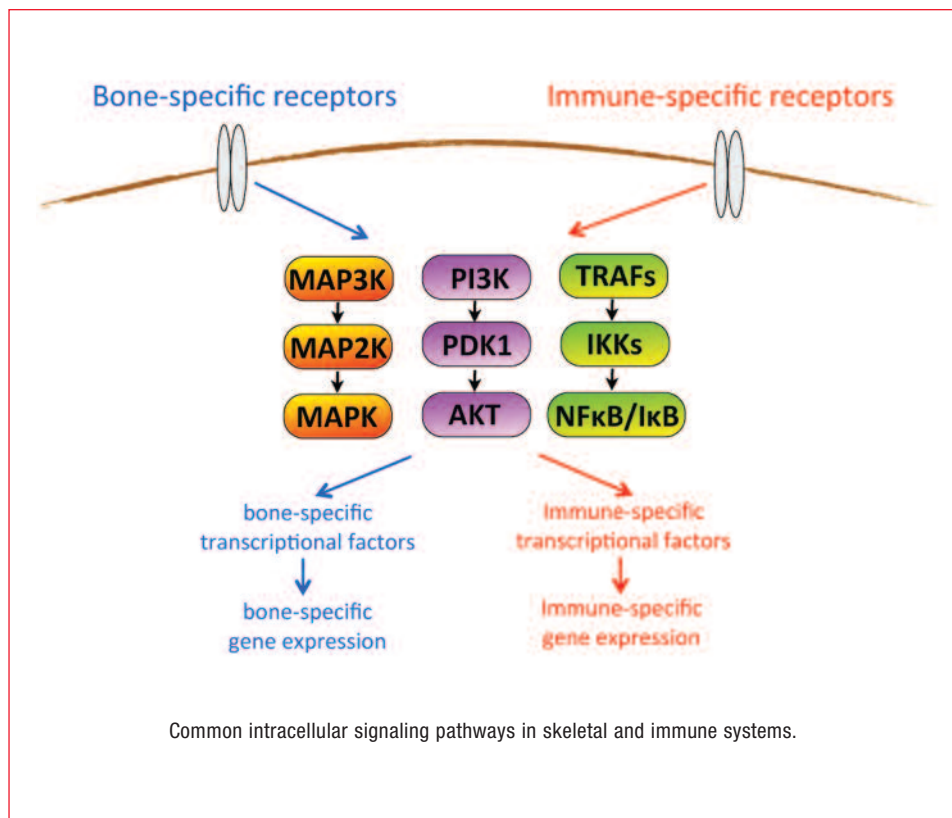


Jae-Hyuck Shim, PhD

Dr. Jae-Hyuck Shim joined the Weill Cornell Medical College in September 2012 as an Assistant Professor of the Department of Pathology and Laboratory Medicine. In 1996, he received his BSc degree in Bio-technology from Yonsei University, Korea. In 2006, he obtained his PhD degree under the supervision of Dr. Sankar Ghosh at the Yale Medical School, and then completed his postdoctoral training in the laboratory of Dr. Laurie Glimcher at the Harvard School of Public Health. During his postdoctoral training, he was awarded an Arthritis Foundation Postdoctoral Fellowship and a NRSA Fellowship from the Cancer Immunology Training Program. He has published 20 papers in the field of developmental cell biology and immunology.

Dr. Shim's Research Interests

Dr. Shim is interested in the mechanisms regulating signal transduction and endocytosis in the skeletal system. During his postdoctoral training in Dr. Laurie Glimcher's laboratory, he investigated the control of anabolic bone formation by osteoblasts (OBs). Evidence that classic regulators of immune function such as NFATs, NF- κ B, and AP-1 are all also important regulators of postnatal bone mass suggests that pathways used for signal transduction in the immune system play key roles in regulating skeletal mineralization. Pursuing this hypothesis has resulted in five separate pieces of work, demonstrating that TGF beta-activating kinase-1 (TAK1, Mapk3k7), p38 MAPK, phosphoinositide-dependent kinase-1 (PDK1), Schnurri-3 (Shn3) and JNK MAPK, key regulators of immune function, are essential for cartilage and/or bone homeostasis. Together with his graduate studies on the NF- κ B



signaling pathway in the immune system, he will extend his work to understand the genetic pathways responsible for skeletal disorders, such as osteoporosis (OP) and Paget's disease (PD).

These studies by Dr. Shim and his group are judged to be important since bone is a dynamic tissue that is continuously remodeled to preserve the structural integrity of the skeleton. Adult bone mass is determined by the balance between bone formation by OBs and bone resorption by osteoclasts (OCs). Dysregulation of the activity of these cells contributes to the pathogenesis of common skeletal disorders, like OP and PD. Tipping this balance in favor of OCs leads to pathological bone loss, such

as observed in osteoporosis which afflicts approximately 10 million Americans over age 50. While significant progress has been made in understanding the molecular mechanisms responsible for skeletogenesis during embryonic development, only a small number of genes are known to regulate postnatal bone formation and/or resorption. The current lack of adequate treatments for bone loss associated with certain skeletal diseases will present an expanding source of morbidity and mortality as the population in the United States ages. Therefore, an improved understanding of OB and OC biology is critical to decrease the burden of disease due to skeletal fragility in older Americans. ■

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Focus

by Daniel M. Knowles, MD

The Department Welcomes Four New Faculty

The Department of Pathology and Laboratory Medicine is delighted to report the addition of four new faculty who will serve to further strengthen our already strong programs in Gastrointestinal Pathology, Renal Pathology, Breast Pathology, and Transfusion Medicine.



Jose Jessurun, MD

Dr. Jose Jessurun is a nationally recognized expert in Gastrointestinal and Hepatic Pathology. After receiving his medical degree in his native Mexico, Dr. Jessurun came to the United States for training in Anatomic Pathology at the Jackson Memorial Hospital at the University of Florida. This was followed by a Surgical Pathology fellowship at the Massachusetts General Hospital and a Gastrointestinal Pathology fellowship at John's Hopkins.

He remained for an additional year at Hopkins as a staff pathologist before returning to his native Mexico where he was appointed Associate Professor in the Department of Pathology at the National University of Mexico. Five years later, he joined the Department of Laboratory Medicine and Pathology at the University of Minnesota where he remained until his recent recruitment to the Weill Cornell Medical Center. During his 20 years at the University of Minnesota, he rose to the rank of Professor of Pathology and for most of those years he served as Director of Surgical Pathology. Over the years he has gained national recognition for his diagnostic expertise in gastrointestinal and hepatic pathology as well as in pulmonary pathology. During this time he contributed more than 120 original articles to the medical and scientific literature. In addition, he contributed many textbook chapters and review articles. He has served as a co-investigator on numerous grants and awards supported by the NIH and other funding agencies. He is a member of the editorial board of Human Pathology and has served as an ad hoc reviewer for numerous other pathology and gastrointestinal journals. Dr. Jessurun brings considerable diagnostic expertise and a track record of academic productivity to our already strong gastrointestinal pathology service directed by Dr. Rhonda Yantiss.



Steven Salvatore, MD

The Department, under the direction of Dr. Surya Seshan, has developed a large renal biopsy consultation program. Dr. Seshan is responsible for the diagnosis and interpretation of renal biopsies coming to us from a large number of hospitals in the metropolitan New York region. In order to further support and build upon Dr. Seshan's program the department has appointed **Dr. Steven Salvatore** to the faculty. Dr. Salvatore received his medical degree from St. Louis University School of Medicine in 2007. Subsequently, he completed his training in anatomical and clinical pathology as well as a fellowship in renal pathology in our program. Dr. Salvatore excelled as a member of our housestaff eventually serving as Chief Resident. He received the Distinguished Housestaff Award and the Employee CARE Award from NewYork-Presbyterian Hospital. He received the Resident Research Day abstract award from the Department of Pathology, a Resident Travel award from the American Society of Nephrology, and a Pathologist-in-Training abstract award from the Renal Pathology Society. He has also contributed significantly to our medical student teaching program and to the training of pathology residents and nephrology fellows. He has begun to develop a clinical research program in conjunction with Dr. Seshan. Dr. Salvatore was appointed Instructor in Pathology and Laboratory Medicine. He will make significant contributions to our clinical, educational, and research programs.



Timothy D'Alfonso, MD

The Department also welcomes another member of our housestaff, **Dr. Timothy D'Alfonso**, to the department. Dr. D'Alfonso received his medical degree AOA from the Rosalind Franklin University/Chicago Medical School. Subsequently, he came to the NewYork-Presbyterian Hospital-Weill Cornell Medical Center where he completed his training in anatomic pathology and a fellowship in breast pathology. During this time he served as Chief Pathology Resident, received the Employee CARE Award for outstanding service and the Distinguished Housestaff Award. Dr. D'Alfonso has been actively engaged in the breast pathology service, actively participating in the breast interdisciplinary tumor board, and initiating a clinical research career in

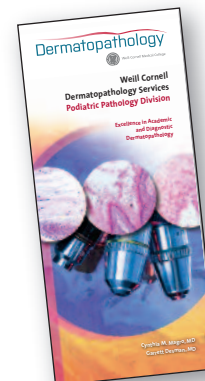
breast pathology. He has had several presentations at the United States and Canadian Academy of Pathology and has published in the American Journal of Surgical Pathology, Breast Journal, and Archives of Pathology and Laboratory Medicine, among others. Dr. D'Alfonso was appointed Instructor in Pathology and Laboratory Medicine. Dr. D'Alfonso will provide excellent contributions to our clinical, educational and research programs in breast pathology.



Scott AVECILLA, MD, PhD

The Department also welcomes **Scott AVECILLA, MD, PhD** to the Division of Laboratory Medicine. His attending responsibilities will involve transfusion medicine and blood banking. Dr. AVECILLA is a graduate of our Tri-Institutional MD/PHD program, his graduate work being mentored by Dr. Shahin Rafii. He completed his residency training in clinical pathology at the University of Washington Medical Center followed by a fellowship in Transfusion Medicine and Blood Banking at the New York Blood Center. Dr. AVECILLA has received numerous awards for his academic accomplishments, including the Paul E. Strandjord Young Investigator Award, the Harry L. Bush, Jr, MD award for Excellence in Vascular Biology, and a National Blood Foundation Young Investigator Scholarship. Dr. AVECILLA has published his stem cell biology research in Nature Medicine, Blood, and the Journal of Clinical Investigation. He has initiated a clinical research program in transfusion medicine. Dr. AVECILLA has been appointed to Assistant Professor of Pathology and Laboratory Medicine. Dr. AVECILLA will contribute significantly to the transfusion medicine service, as well as to our training program in Pathology. ■

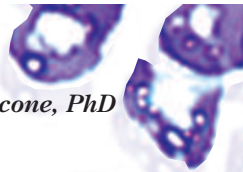
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Keynotes

by *Domenick J. Falcone, PhD*



► **Dr. Yashpal Agrawal** was involved in creating the design and contents of the “*Pharmacogenomics: From Concepts to Cases*” series for the College of American Pathologists’ (CAP) online program that provides pathologists with the foundation and latest advances in the integration of diagnostics and therapeutics through pharmacogenomics. He continues to serve on multiple CAP and CLSI committees.

► In 2011, **Dr. David P. Hajjar**, was named by the Fulbright Commission to one of its premier senior scholarship programs — the Fulbright Specialist Program. He is only the second Weill Cornell faculty member to receive this honor. As a Fulbright scholar, Dr. Hajjar worked in concert with the Dean of Weill Cornell Medical College – Qatar, and the Dean of the College of Arts and Sciences of Qatar University, to strengthen the biomedical research and educational enterprise of Qatar University’s College of Arts and Sciences and to develop opportunities for collaborations between Weill Cornell Medical College – Qatar, Qatar University and beyond. In addition, Dr. Hajjar helps to identify students interested in medicine at Qatar University, who would qualify for admission to the Weill Cornell Medical College in Qatar. Dr. David Hajjar spoke on “Inflammatory Mediators which Trigger Arterial Cholesterol Accumulation” at the 79th European Atherosclerosis Congress in Gothenburg, Sweden (June 2011). He attended 17th World Congress on Heart Disease, International Academy of Cardiology Toronto, Canada in July 2012. In November 2011, Dr. Hajjar was invited by the University of Lugano, Switzerland to review their education programs.

► **Dr. Timothy Hla** was an invited speaker at the following scientific meetings and institutions: European Union League Against Rheumatism annual meeting, London, UK, May 25-28, 2011; International Society for Thrombosis and Hemostasis annual meeting, Kyoto, Japan, July 23-28, 2011; 2nd International SFB Symposium “Vascular Differentiation and Remodeling” Mannheim, Germany, September 27-30, 2011; Center of Excellence grant meeting, Kyushu University, Fukuoka, Japan, January 20-23, 2012; Division of Cardiovascular Medicine, Yale Univ. SOM, March 6, 2012; Rigshospitalet, University of Copenhagen, Denmark, February 9, 2012; Gordon Research Conference on sphingolipids, Il Ciocco, Italy, April 21-26, 2012; International Vascular

Biology meeting, Wiesbaden, Germany, June 1-6, 2012; Keck retreat on Biomembranes, Cornell University, Ithaca, NY, June 13-15; Cell Symposium on Angiogenesis and Metabolism, Leuven, Belgium, July 5-9, 2012; New York Lipid and Vascular Biology Club, The Rockefeller University, September 11, 2012; and the Molecular Medicine of Sphingolipids, EMBO meeting, Ramot, Israel, October 15-21, 2012.

► **Dr. Rana S. Hoda** co-authored a book with the late Dr. Leopold G. Koss entitled “*Urinary Tract Cytology and Its Histopathologic Bases*,” which was published in March 2012. Dr. Hoda was certified by the CAP in performing ultrasound-guided fine needle aspirations (FNAs) in March 2011 and has now established an active FNA service. Dr. Hoda is Course Director of the “Papanicolaou Tutorial in Diagnostic Cytopathology” hosted at WCMC by the Department of Pathology and Laboratory Medicine. The 3rd meeting was held in July, 2012. Dr. Hoda lectured on various cytopathology related topics at multiple national and international meetings including the 2012 USCAP Annual Meeting at Vancouver, where she presented a short course entitled: “Glandular Lesions in Liquid-Based Pap Tests.” Dr. Hoda also had several speaking engagements at the ASCP Annual Meeting in October 2011 and the American Society of Cytopathology in November 2011. In addition, Dr. Hoda presented courses at the annual cytology meetings of Wisconsin and New Jersey Societies of Cytology. She also presented an ASCP teleconference on Pap tests. The international meetings where she was an invited speaker included the International Breast Cancer Symposium at Santiago, Chile, in April, 2012, Japanese Cytology Symposium, Kyoto in October 2011 and Latin American Congress of Cytopathology, Lima, Peru in June 2011.

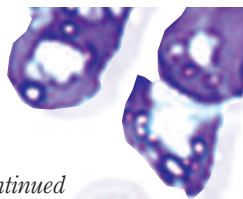
► During the past year, **Dr. Syed Hoda** made several presentations and conducted multiple educational courses, mostly related to breast pathology, at various international, national and regional forums. These forums included International Symposium on Breast Diseases in Santiago, Chile; University of Kyoto, Japan; Annual Meeting of United States and Canadian Academy of Pathology in Vancouver, BC; Annual Meeting of American Society of Clinical Pathology in Boston, MA; School of Breast Oncology in Atlanta, GA; and New York Metropolitan Breast Cancer Group in New York, NY. Dr. Hoda recently joined the Editorial Board of *The Breast Journal*. He already serves on the Editorial Boards of *American Journal of Surgical Pathology*, *American Journal of Clinical Pathology*, and *Advances in Anatomic Pathology*.

► **Drs. Stephen G. Jenkins and Audrey Schuetz** were invited speakers at the 23rd Annual Conference of the Egyptian Society of Laboratory Medicine held in Cairo, Egypt in April, 2012. They conducted a two-day workshop on “Detection of Antimicrobial Resistance among Gram-negative Pathogens” at the University of Cairo prior to the Conference. Dr. Jenkins also convened and spoke on “Problem Bugs, Resistant Drugs” at a workshop at the General Meeting of the American Society for Microbiology June 2012. Drs. Jenkins and Schuetz were also Workshop Conveners and Speakers on “Antibiotic Resistance among Bacterial Pathogens: Mechanisms, Detection, and Molecular Epidemiology” at the 52nd Interscience Conference on Antimicrobial Agents and Chemotherapy held in September 2012. Additionally, Dr. Jenkins convened a symposium at that same conference on “Laboratory Approaches for Detection, Characterization, and Reporting of Important Resistance Mechanisms in Gram-Negatives.” He was an invited speaker at the 19th First Coast Infectious Disease/Clinical Microbiology Symposium held in St. Augustine, Fla in January 2012. The topic was “The Antimicrobial Paradox: The Pros and Cons of Stewardship.” Finally, Dr. Jenkins presented “Critical Collaborations in Antimicrobial Stewardship: Diagnostic Microbiology” at the Infectious Diseases Society of America ID Week Conference, in October 2012.

► **Dr. Attilio Orazi** was an invited speaker at the following scientific meetings: European Society of Pathology, Helsinki, Finland (September 2011); First Meeting of the Bone Marrow Pathology Group (Dr. Orazi is a co-founder with Dr. Daniel Arber of the BMPG), Cleveland Clinic, Cleveland, OH (September 2011); European Bone Marrow Working Group (EBMWG) Scientific/Business Meeting, Berlin, GR (October 2011); Society for Hematopathology Workshop on Cutaneous Lymphoid Neoplasms, Los Angeles, CA (October 2011); German IAP Winter Meeting, Bonn, GR (January 2012). In January 2012, Dr. Orazi presented lectures on “Myelodysplastic Syndromes” and “Myelodysplastic/Myeloproliferative Neoplasms” at the Tutorial on Neoplastic Hematopathology directed by Dr. Daniel Knowles. In addition, in March 2012, Dr. Orazi authored/co-authored nine presentations and also was one of the invited presenters/panelists for the Hematopathology Specialty Conference. Together with Dr. D. Arber (Stanford University), Dr. Orazi continued to direct the short course: “Modern Approach to the Diagnosis and Classification of Myeloid Neoplasms.” In April *continued on page 6*

Keynotes

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► Dr. Attilio Orazi *continued*

2012, Dr. Orazi participated as panelist to the slide review conference held at St. Thomas Hospital in London, UK organized in preparation for the EBMWG Course and Workshop held in Lisbon, PG during October 2012. In June, Dr. Orazi was a Visiting Professor at Medical College of Wisconsin, Milwaukee, WI (June 2012) chaired a working conference at the Department of Pathology, University of Milan, Milan, Italy (June 2012); spoke at the Basel Seminars in Pathology, Basel, Switzerland (June 2012); spoke at the 24th Meeting of the European Society of Pathology, Prague, Czech Republic (September 2012); and the Second Meeting of the Bone Marrow Pathology Group, Stanford University, Stanford, CA (September 2012). Dr. Orazi is the chairperson of the European Bone Marrow Working Group. During 2011-2012, Dr. Orazi has continued in his role as President of the New York Pathological Society (NYPS) and has coordinated the selection of speakers for the five regular monthly meetings and the President Symposium held in May. Dr. Orazi continues to serve as the Pathology Chair for all the clinical trials of the Myeloproliferative Disorders Consortium (chaired by Ronald Hoffman, MD; Mount Sinai School of Medicine). Dr. Orazi was invited to participate as one of the “Seven Top Hematologists to Help Patients Fight Rare Leukemia” in the MPN Forum, an on-line support service for MPN patients sponsored by the MPN Research Foundation. For the fourth year in a row, Dr. Orazi has made the list of “Best Doctors” published by the *New York Magazine*. Also named in Castle Connolly’s *America’s Top Doctors for Cancer, 7th Edition, Top Doctors: New York Metro Area, 15th Edition, and America’s Top Doctors, 11th Edition*.

► **Dr. Edyta Pirog** was nominated to the editorial board of the *International Journal of Gynecologic Pathology* and to WHO commission for the WHO Terminology of the Cervix, Vulva and Vagina.

► **Dr. Hanna Rennert** presented: “Genetic testing of autosomal dominant polycystic kidney disease (ADPKD) using long-range PCR and next generation sequencing” at the Association for Molecular Pathology meeting in October of 2012 and at the American Society of Human Genetics meeting in November of 2012. In conjunction with Dr. Jenkins she has validated a new clinical real-time PCR assay for BKV viral load. The results of this study

were published in the *Journal of Clinical Virology* in 2012. Dr. Rennert presented a poster describing the development of this test and quality control applications for monitoring viral load at the Clinical Virology Symposium in May 2011.

► **Dr. Audrey N. Schuetz** was appointed as a member of the Microbiology Resource Committee of the College of American Pathologists in January 2012. In the summer of 2012, she was elected to serve as a member of the Committee on Laboratory Practices of the Public and Scientific Affairs Board of the American Society for Microbiology (ASM). In this capacity, she is representing ASM on the Antimicrobial Stewardship Panel which sets national stewardship guidelines jointly by the Infectious Disease Society of America and the Society for Healthcare Epidemiology of America. Internationally, she continues her work in laboratory medicine and taught a weeklong laboratory medicine course for premedical students in Astana, Kazakhstan at the national Nazarbayev University. She also spoke at the Mexican National Congress of Infectology and Microbiology in León, Mexico in April 2012. She continues to serve on the International Committee of Weill Cornell Medical College and was recently awarded a seed grant from the Mario Einaudi Center for International Studies of Cornell University for building collaborative medical research studies in Brazil. As Global Health faculty for WCMC, she teaches an annual wet laboratory workshop to medical students across the U.S. who wish to practice medicine abroad, in a course entitled *Global Health: Clinical Skills for Resource-Poor Environments*. She discussed various methods of phenotypic detection of gram-negative bacterial resistance at the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) annual conference in San Francisco. In the spring of 2012, she was an invited speaker and co-convenor of a session on central nervous system infections at the ASM annual conference. Since 2009, she has been a faculty speaker at both the national ASM and ICAAC pre-meeting Bacterial Resistance and Epidemiology Workshops, and she specifically lectures on molecular strain typing of bacteria. She serves as Microbiology Section Editor for the *Archives of Pathology and Laboratory Medicine*. In June 2012, she was elected to be a member of the Enterobacteriaceae Working Group of the Subcommittee on Antimicrobial Susceptibility Testing for the Clinical Laboratory and Standards Institute.

► **Dr. Surya V. Seshan** served as a Co-Director of the International Summer School of Renal Pathology in Bari, Italy in 2011 and 2012. She was

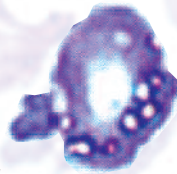
a Visiting Professor, Department of Pathology, Memorial Sloan-Kettering Cancer Center in December 2011; and Sri Ramachandra Medical College and Research Institute in Chennai, India in February 2012. Currently, she is Chair of the Education Committee in the Renal Pathology Society and the Pathology Committee of International Society of Nephrology-Global Outreach. She is also the recipient of the Outstanding Teaching Award from the WCMC Department of Nephrology in June 2012 and served as the Abstract Reviewer “Kidney and genitourinary pathology,” College of American Pathologists, annual meeting 2012.

► **Dr. Wayne Tam** served as a Scientific Review Panel Member for the 2011-2012 Peer Review Cancer Research Program (PRCRP), Blood Cancer Section, of the Department of Defense. He was also recently invited to be a member of the Panel of Scientific Advisors for the Lymphoma Research Foundation. Dr. Tam was a Visiting Professor at the Department of Pathology at Rush University Medical College in Chicago in October 2012. He presented a slide seminar and also a lecture titled “PRDM1/Blimp-1 as a Tumor Suppressor Gene in Lymphoid Malignancies.” Dr. Tam was awarded the Weill Cornell Cancer Center Pilot Grant (2012-2013) as a co-Principal Investigator with Dr. Olivier Elemento (Laboratory of Cancer Systems Biology, Department of Physiology & Biophysics, Institute for Computational Biomedicine) and Dr. Peter Martin (Division of Hematology & Oncology, Department of Medicine). The proposed project focuses on the use of next-generation sequencing to study intra-tumor heterogeneity and tumor relapse in patients with diffuse large B-cell lymphomas.

► **Dr. Y. Lynn Wang** taught “Clinical Utility of Immunoglobulin Light Chain Clonality Analysis” at the Association for Molecular Pathology (AMP) Outreach Course in November 2011. She spoke at the 21st Beaumont DNA Symposium in September on “Molecular Monitoring of CML: International Standardization of *BCR-ABL* quantification.” Dr. Wang played an active role in the AMP’s Training and Education committee, updating the routes to certification in Molecular Pathology in the United States. Dr. Wang is also a member of an AMP working group that establishes guidelines on *JAK2* and *MPL* mutation testing. Dr. Wang presented her translational research findings on lymphoma at various institutions and meetings including: the University of Chicago, the 3rd Ditan-Youyi Clinco-Hematopathology Saloon, Beijing University Cancer Hospital, Medical College of Beijing University,

Keynotes

continued



► Dr. Y. Lynn Wang *continued*

and Bridge Medical Summit. In October 2012, she presented: "Individual responses of CLL cells to BCR-targeted therapies" as part of Weill Cornell Cancer Center's seminar series. Also in October, Dr. Wang served to moderate the CLL Biology session at the 2012 Lymphoma and Myeloma meeting. She became a member of the Panel of Scientific Advisors of the Lymphoma Research Foundation.

► **Dr. Rhonda Yantiss** directed the fourth annual Tutorial on Pathology of the GI Tract, Pancreas, and Liver at the Four Seasons Hotel Miami, in Miami, Florida in November 2012. This Tutorial is a comprehensive 5-day post-graduate course that features a panel of internationally recognized faculty from across the United States and draws registrants from around the globe. She served as chairperson of Education Committee, President-Elect, and member of the Executive Committee of the Rodger C. Haggitt Gastrointestinal Pathology Society. In that capacity, she organized educational sessions at the American Society of Clinical Pathology 2011 Annual Meeting in Las Vegas, Nevada, the 2012 United States and Canadian Academy of Pathology National Meeting in Vancouver, British Columbia, and the American Society of Clinical Pathology 2012 Annual Meeting in Boston, MA. Dr. Yantiss served as a visiting professor at The University of Texas Southwestern Medical Center, Dallas, Texas and at the Texas Society of Pathologists Annual Meeting in Dallas, TX. She delivered lectures at the 2011 Update in Gastroenterology, Hepatology and Nutrition Post-Graduate Course and the 2012 Intestinal Immune Based Inflammatory Diseases Symposium, both of which were sponsored by Columbia University College of Physicians & Surgeons and Weill Cornell Medical College; and also lectured at the Annual Update on Gastrointestinal Cancers: A Multi-disciplinary Approach to Screening, Diagnosis, and Treatment at Weill Cornell Medical College. Dr. Yantiss was invited to give several lectures in the Recent Advances in Lung and GI Pathology post-graduate course at the University of Medicine and Pharmacy in Timasoara, Romania. She most recently spoke at the International Academy of Pathology 2012 Meeting in Capetown, South Africa and served as a moderator and organizer of educational sessions at that meeting. She continues to serve as an

ad hoc reviewer for fifteen journals and is a member of the editorial boards of the *Archives of Pathology and Laboratory Medicine*, *Modern Pathology*, *American Journal of Clinical Pathology*, *The American Journal of Surgical Pathology*, and Associate Editor of *Archives of Pathology and Laboratory Medicine*. She is an abstract reviewer

Dr. Rosen Hailed as Chief Nana Kofi Atta in Ghana

by *Paul Peter Rosen, MD*

Since at least the seventeenth century, the towns of the Fante people living in the Gold Coast region of west Africa (now part of Ghana) have had one or more military associations called *Asafo* Companies, meaning "war" (*sa*) "people" (*fo*). The *Asafo* were a patrilineal militia whose main role was to protect the community against external aggression, as well as to maintain order and to provide public services. Today, they provide community services and are political organizations. The historically intense rivalries between *Asafo* Companies in a town, and between towns, that led to bloodshed in the past, still exist, although now they rarely result in violent confrontations.

Each *Asafo* is represented by a complex set of emblems that embody the spirit of the organization and the Company's founding ancestors. Among the most widely known are flags measuring roughly 3x5 feet that are thought to be modeled after flags that were first flown over forts built by Europeans starting in the fifteenth century. Usually made of cotton cloth, they are decorated with appliquéd images of people, animals, and objects that are assembled to create the pictorial representation of a proverb. The message encoded in the flag is usually directed at a rival Company and can be summarized as follows: "If you mess with us you will regret doing so, for we are really tough." The flags are sacred objects that only appear in public on special occasions when they are handled exclusively by specially trained men who perform an elaborate, acrobatic dance, accompanied by drumming with coded messages, gongs, and sometimes a chorus that combine to glorify the military prowess of the Company and its superiority over its rivals.

Over the years, my wife and I were able to acquire examples of these flags and we now have more than 50 in our collection. In July 2012 we returned for the fourth time to Ghana in order to witness the *Asafo* flag ceremony, in the short time available, we were able to attend events in 2 towns.

The other event took place at the village of Goma in the state of Asebu. Asebu is one of approximately

for the College of American Pathologists and member of the Ramzi Cotran Young Investigator Award Committee of the United States and Canadian Academy of Pathology.

Special Congratulations to Dr. Rhonda Yantiss, who welcomed baby Zachary Paul on December 1, 2012. Zachary weighed 8lb 6oz.



Paul Peter Rosen, MD, Emeritus Professor of Pathology and Laboratory Medicine, Weill Cornell Medical College is hailed as Chief Nana Kofi Atta in Ghana. The leader of the Asafo Company may be strict in enforcing rules, but he does so to maintain a strong organization, and to keep order. This might well be a suitable emblem for a Pathology Department Chairman!

20 states that make up the Fante confederation that was in existence in 1471 when the Portuguese arrived on the Gold Coast. Here, the events that transpired were unexpected. After meeting with the village elders and participating in ceremonial dances, we were presented with a 13 foot-long hand-painted banner that displays images equivalent to three traditional flags.

After we were presented with the banner and made speeches expressing our appreciation, there was much drumming, singing and dancing. Then, completely out of the blue, we were told that one of us was invited to become an honorary Chief of the village. Not knowing what this would entail, and to spare my wife possible discomfort, I accepted the offer. No sooner had I done so than I was hoisted out of my seat by three sturdy fellows and carried on a bumpy ride three times around the *Asafo* shrine, to the sound of drums, followed by a crowd of dancing, singing women (*above*). I was then lowered into a chair and doused with white powder, an act of sanctification, and given the name Nana Kofi Atta. Nana falls somewhere between Mr. and Sir, Kofi is a name taken by men born on a Friday, and I believe Atta was chosen because it was part of the name of the President of Ghana, John Atta Mills, who had died in office two days earlier. So ended a truly extraordinary visit to Ghana.

Twenty *Asafo* flags from our collection and photographs taken during our recent visit are included in an exhibition open to the public from January 15 to March 15, 2013 in the gallery of the Philadelphia Free Library (equivalent to New York's 42nd Street library) on Vine Street.

Resident's Corner

Welcome to Our New Residents



Stephen Castro, MD / PGY-1
Stephen graduated in April 2012 from St. George's University. He received his BA in Biology cum laude in 2007 from San Francisco State University. He is an AP/CP resident.



Natasha Darras, MD / PGY-1
Natasha graduated in May 2012 from Jefferson Medical College. She received her BS in 2007 from Cornell University, Ithaca. She is in the Jefferson Pathology Honors Program and the APC National Pathology Honors Society. She is an AP/CP resident.



William Hudson, MD / PGY-1
William graduated in May 2012 from the Medical College of Georgia School of Medicine. He received his BA in 1998 from the University of Virginia, followed by a distinguished career as a musician. He is an AP/CP resident.



Geoffrey Mikita, MD / PGY-1
Geoffrey graduated in June 2012 from the Chicago Medical School at Rosalind Franklin University of Medicine & Science. He received his BS in 2005 from Southern Connecticut State University. He is an AP/CP resident.



Shabnam Momtahn, MD / PGY-1
Shabnam graduated in October 2006 from the Iran University of Medical Sciences, followed by internship training at the same institution. She immigrated to the United States in 2010 and has been doing research at NYU Medical Center and here in the Department of

Pathology and Laboratory Medicine with Dr. Lora Ellenson. She is an AP/CP resident.



Kyung Eun Park, MD / PGY-1
Kyung graduated in March 2010 from Ross University School of Medicine. She has been doing prostate research in the laboratory of Dr. Mark Rubin since graduation. She is an AP/CP resident.



Jad Saab, MD / PGY-1
Jad graduated in June 2008 from the American University of Beirut, followed by a year of research at the same institution. He completed three years of AP residency in June

2012 at the American University of Beirut. He is an AP/CP resident.



Hamilton Tsang, MD / PGY-1
Hamilton graduated in May 2012 from the Keck School of Medicine of the University of Southern California. He received his BS in 2007 from the University of California at Los Angeles. He is an AP/CP resident.



Wanhua Jenny Yang, MD, PhD
PGY-1 (start date 8/1/12)
Wanhua received her MD in 2001 from the Tongji Medical College of Huazhong University of Science & Technology, China. In 2006, she received her PhD in cancer biology, from the same institution. Since immigrating to the United States, she held the title of Instructor at UT Southwestern Medical Center, Dallas and has been an observer at Kaiser Permanente Santa Clara Medical Center. She is an AP/CP resident.

3rd Annual Resident's Research Day

The 3rd Annual Department of Pathology and Laboratory Medicine Resident's Research Day was held April 19th, 2012 in the Griffis Faculty Club. The 3-winners were Drs. Khani, Scherl and Yan who were presented with gift certificates by the Chairman, Dr. Daniel M. Knowles. *Congratulations for a job well done!*



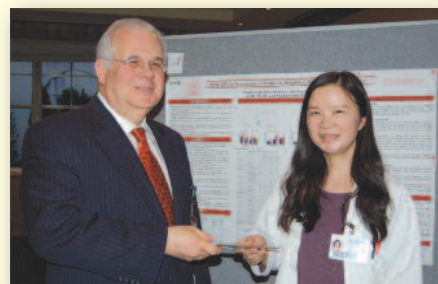
Francesca Khani, MD

"Differences in TMPRSS2-ERG Gene Fusion, PTEN Deletion, and SPINK1 Overexpression in Prostate Cancer in African-American and Caucasian Men."



Alexis Scherl, MD, PhD

"The Hepatic Organotypic Slice: A Novel ex-vivo Metastasis Assay."



Jiong Yan, MD, PhD

"Deregulation of BANK1, a novel IGH translocation partner, indicates a potential pathogenic role in B cell lymphomas."



Pathology and Laboratory Medicine Faculty 2012-2013

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Welcome to Our New Fellows



Angela Bachmann, MD

Gastrointestinal Pathology Fellow

Angela graduated in 2002 from St. Louis University, followed by pathology training at the Naval Medical Center in San Diego. She is a staff pathologist at the Naval Medical Center, and they have provided the funding for her fellowship.



Sebastian de Feraudy, MD, PhD

Dermatopathology Fellow

Sebastian received his MD in 2007 and his PhD in 2010, from Université Paris Descartes. He completed his residency training in anatomic pathology at Brigham and Women's Hospital-Harvard Medical School in June 2012.



Jennifer Garbaini, MD

Transfusion Medicine Pathology Fellow

Jennifer graduated in 2008 from Albany Medical College. She completed her AP/CP residency-training at Albany Medical College in June 2013. She is the Transfusion Medicine Fellow in the new joint program between the New York Blood Center and NewYork-Presbyterian Hospital/Weill Cornell.



Jonas Heymann, MD

Cytopathology Fellow

Jonas graduated in 2008 from Columbia University College of Physicians and Surgeons. He completed his AP/CP residency at Columbia in June 2012.



Kathy Kawaguchi, MD

Gastrointestinal Pathology Fellow

Kathy graduated in 2006 from the University of Chicago-The Pritzker School of Medicine. She did one year of general surgery residency

at the University of Illinois at Chicago before joining our AP/CP residency-training program and completing her training in June 2012.



Rachel Ochs, MD

Hematopathology Fellow

Rachel graduated in 2008 from the University of Pennsylvania School of Medicine, where she also completed her AP/CP residency-training in June 2013.



Sonal Varma, MD

Breast Pathology Fellow

Sonal graduated in 2001 from MGM Medical College, India. Before joining the anatomic pathology residency-training program in 2007 at Queen's University in Canada, she was a Postdoctoral Research Fellow at CancerCare Manitoba.



Xuan Wang, MD, PhD

Dermatopathology Fellow

Xuan received her MD in 1997 from Shanghai Medical University, and received her PhD in 2004 from Brandeis University. Prior to becoming an anatomic pathology resident in our training program, she was a Postdoctoral Fellow in the laboratory of Dr. Elaine Fuchs at The Rockefeller University.



Jiong Yan, MD, PhD

Hematopathology Fellow

Jiong received her MD in 1998 from Peking Union Medical College and her PhD in 2004 from Baylor College of Medicine. She was a Postdoctoral Fellow at Baylor College of Medicine, before joining our AP/CP residency-training program and completing her training in June 2012.

House Staff Events

The Department held its annual House Staff Dinner on May 31st at the Water Club. *We wish all our departing residents and fellows the best!*



Dr. Kate Piotti, Chief Resident (right), presented Dr. Scott Ely with the M. Desmond Burke, MD Teaching Award.



Left to right: K. Piotti, K. Kawaguchi, F. Khani, R. Kaplan, A. Scherl taking part in the festivities.



House Staff enjoying our Holiday Party held at the Metropolitan Club in NYC, December 12th.

NEW YORK
Super Doctors
2013

Congratulations to our Super Docs!

Listed in the May 19, 2013 issue of *The New York Times Magazine* in *New York Super Doctors*.®

- ▶ **Daniel M. Knowles, MD**- David D. Thompson Professor and Chairman of Pathology at Weill Cornell Medical College; Pathologist-in-Chief at NewYork-Presbyterian Hospital
- ▶ **Cynthia M. Magro, MD**- Professor of Pathology and Laboratory Medicine at Weill Cornell Medical College; Director of the Comprehensive Dermatopathology Service at Weill Cornell Medical College
- ▶ **Attilio Orazi, MD**- Professor of Pathology and Laboratory Medicine; Vice Chairman for Hematopathology and Director, Division of Hematopathology at Weill Cornell Medical College

Faculty Publications in 2012

The faculty published more than 140 publications this past year. Due to the large number of publications, we are pleased to list a sampling of these noteworthy publications:

Carmel R, Agrawal YP: Failures of cobalamin assays in pernicious anemia. *New Engl J Med* 367:385-386, 2012.

Agrawal YP, Rennert H: Pharmacogenomic testing of toxicological drugs. *Clin Lab Med* 32:509-523, 2012.

Chen YT, Chiu R, Lee P, Beneck D, Boquan J, Old LJ: Chromosome X-encoded cancer/testis antigens show distinctive expression patterns in developing gonads and in testicular seminoma. *Hum Reprod* 26:3232-3243, 2011.

Bretz J, Garcia J, Huang X, Kang L, Zhang Y, Toellner KM, Chen-Kiang S: Noxa mediates p18^{INK4c} cell cycle control of homeostasis in B cells and plasma cell precursors. *Blood* 117: 2179-2188, 2011.

Huang X, Di Liberto M, Jayabalan D, Liang J, Ely S, Bretz J, Shaffer III AL, Louie T, Che, I, Randolph S, Hahn WC, Staudt LM, Niesvizky R, Moore MAS, Chen-Kiang S: Prolonged early G1 arrest by selective CDK4/CDK6 inhibition sensitizes myeloma cells to cytotoxic killing through cell cycle-coupled loss of IRF4. *Blood* 120:1095-106, 2012.

Genzen JR, Kawaguchi KR, Furman RR: Detection of a monoclonal antibody therapy (ofatumumab) by serum protein and immunofixation electrophoresis (IFE). *Brit J Haematol* 123-5, 2011.

Genzen JR, Tormey CA: Pathology consultation on reporting of critical values. *Am J Clin Pathol* 135: 505-13, 2011.

Geyer JT, Verma S, Mathew S, Wang YL, Racchumi J, Espinal-Witter R, Subramaniyam S, Knowles DM, Orazi A: Bone marrow morphology predicts additional chromosomal abnormalities in patients with myelodysplastic syndrome with del(5q). *Hum Pathol* Sep 17 [Epub ahead of print], 2012.

Geyer JT, Deshpande V: IgG4-associated sialadenitis. *Curr Opin Rheumatol* 23:95-101, 2011.

Barsam SJ, Psaila B, Sloane PA, Page LK, Forestier M, Geyer JT, Villarica GO, Ruisi MM, Gernsheimer TB, Beer JH, Bussel JB: Platelet production and platelet destruction: assessing mechanisms of treatment effect in immune thrombocytopenia (ITP). *Blood* 117:5723-32, 2011.

Ghanima W, Junker P, Hasselbalch HC, Boiocchi L, Geyer JT, Feng X, Gudbrandsdottir S, Orazi A, Bussel JB: Fibro-proliferative activity in patients with immune thrombocytopenia (ITP) treated with thrombopoietic agents. *Br J Haematol* 155:248-55, 2011.

Upmacis RK, Shen H, Benguigui LES, Lamon BD, Deeb RS, Hajjar KA, Hajjar DP: Inducible nitric oxide synthase provides protection against injury-induced thrombosis. *Am J Physiol* 301: H617-624, 2011.

Duan Y, Chen Y, Hu W, Li X, X Zhou X, Kong D, Hajjar DP, Han J: PPAR γ activation by ligands and dephosphoryla-

tion induces PCSK9 and LDL receptor expression. *J Biol Chem* 287:23667-23677, 2012.

Kaplan R, Hoda SA, Hoda RS: Cytological evaluation of bloody nipple discharge fluid. *Diagn Cytopathol* Nov 1 [Epub], 2011.

Weisenberg SA, Mediavilla JR, Chen L, Alexander EA, Rhee KY, Kreiswirth BN, Jenkins SG: Extended spectrum beta-lactamase-producing enterobacteriaceae in international travelers and non-travelers in New York City. *PLoS One* 7:e45141, 2012.

Jenkins SG, Schuetz AN: Laboratory testing to guide antimicrobial therapy. *Mayo Clin Proceed* 87:290-308, 2012.

Jenkins SG, Jerris RC: Critical assessment of issues applicable to development of antimicrobial susceptibility testing breakpoints. *J Clin Microbiol* 49:S5-S10, 2011.

Jenkins SG, Raskoshina L, Schuetz AN: Comparative performance of a novel chromogenic spectra VRE agar to bile esculin azide and *Campylobacter* agars for the detection of vancomycin-resistant enterococci in fecal samples. *J Clin Microbiol* 49:3947-3949, 2011.

Giulino L, Mathew S, Ballon G, Chadburn A, Barouk S, Antonicelli G, Leocini L, Liu YF, Gogineni S, Tam W, Cesarman E: A20 (TNFAIP3) genetic alterations in EBV-associated AIDS-related lymphoma. *Blood* 117:4852-4854, 2011.

Green TM, Young KH, Visco C, Xu-Monette ZY, Orazi A, Go RS, Nielsen O, Gadeberg OV, Mourits-Andersen T, Frederiksen M, Pedersen LM, Møller MB: Immunohistochemical double-hit score is a strong predictor of outcome in patients with diffuse large b-cell lymphoma treated with rituximab plus cyclophosphamide, doxorubicin, Vincristine, and prednisone. *J Clin Oncol* 30:3460-7, 2012.

Xu-Monette ZY, Wu L, Visco C, Tai YC, Tzankov A, Liu WM, Montes-Moreno S, Dybkær K, Chiu A, Orazi A, et al: Mutational profile and prognostic significance of TP53 in diffuse large B-cell lymphoma patients treated with rituximab-CHOP: a report from an International DLBCL Rituximab-CHOP Consortium Program study. *Blood* Sep 5 [Epub ahead of print], 2012.

Zhou J, Czader M, Orazi A: Myelodysplastic syndromes. *Sem Diagn Pathol* 28:258-72, 2011.

Chiu A, Orazi A: Mastocytosis and mastocytic overlap syndromes. *Sem Diagn Pathol* 29:19-30, 2012.

Boiocchi L, Arabadjef M, Ghanima W, Bussel JB, Orazi A, Geyer JT: Thrombopoietin receptor agonist therapy in primary immune thrombocytopenia is associated with bone marrow hypercellularity and mild reticulin fibrosis but not other stromal abnormalities. *Mod Pathol* 25:65-74, 2012.

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Panarelli NC, Yantiss RK, Yeh M, Chen YT: Tissue-specific Cadherin CDH17 is a useful marker of adenocarcinomas arising from the gastrointestinal tract: A comparison with CDX2. *Am J Clin Pathol* 138:211-222, 2012.

Panarelli NC, Zhou XK, Kitabayashi N, Chen YT, Yantiss RK: MicroRNA expression aids the preoperative diagnosis of pancreatic ductal adenocarcinoma.

Pancreas 41:685-90, 2012.

Fadare O, Parkash V, Dupont WD, Acs G, Atkins KA, Irving JA, Pirog EC, Quade BJ, Quddus MR, Rabban JT 3rd, Vang R, Hecht JL: The diagnosis of endometrial carcinomas with clear cells by gynecologic pathologists: an assessment of interobserver variability and associated morphologic features. *Am J Surg Pathol* 36:1107-18, 2012.

Wang X, Prakash S, Lu M, Tripodi J, Ye F, Najfeld V, Li Y, Schwartz M, Weinberg R, Roda P, Orazi A, Hoffman R: Spleens of myelofibrosis patients contain malignant hematopoietic stem cells. *J Clin Invest* Oct 1 [Epub ahead of print], 2012.

Prakash S, Hoffman R, Barouk S, Wang YL, Knowles DM, Orazi A: Splenic extramedullary hematopoietic proliferation in Philadelphia chromosome-negative myeloproliferative neoplasms: heterogeneous morphology and cytological composition. *Mod Pathol* 5:815-27, 2012.

Ginsberg M, James D, Ding BS, Nolan D, Geng F, Butler JM, Schachterle W, Pulijaal VR, Mathew S, Chasen ST, Xiang J, Rosenwaks Z, Shido K, Elemento O, Rabbany SY, Rafii S: Efficient Direct Reprogramming of mature amniotic cells into endothelial cells by ETS factors and TGF β suppression. *Cell* 151:1, 2012.

Rennert H, Jenkins SG, Azurin C, Siple J: Evaluation of a BK virus viral load assay using the QIAGEN artus[®] BK Virus RG PCR test. *J Clin Virol* 54:260-264, 2012.

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Beltran H, Rickman DS, Park K, Chae SS, Sboner A, MacDonald TY, Wang Y, Sheikh KL, Terry S, Tagawa ST, Dhir R, Nelson JB, de la Taille A, Allory Y, Gerstein MB, Perner S, Pienta KJ, Chinnaiyan AM, Wang Y, Collins CC, Gleave ME, Demichelis F, Nanus DM, Rubin MA: Molecular characterization of neuroendocrine prostate cancer and identification of new drug targets. *Cancer Discov* 16:487-495. PMID: 22389870, 2011.

Demichelis F, Settur, SR, Banerjee S, Chakravarty D, Yun J, Chen H, Chen CX, Huang J, Beltran H, Oldridge DA, Kitabayashi N, Stenzel B, Schaefer B, Horninger W, Bektic J, Chinnaiyan AM, Goldenberg S, Siddiqui J, Regan M, Kearney M, Soong TD, Rickman DS, Elemento O, Wei JT, Scherr DS, Sanda MA, Bartsch G, Lee C, Klocker H, Rubin MA: Identification of functionally active, low frequency copy number variants at 15q21.3 and 12q21.31 associated with prostate cancer risk. *Proc Natl Acad Sci* 109:6686-91, 2012.

Rickman DS, Soong TD, Moss B, Mosquera JM, Dlabal J, Terry S, MacDonald TY, Tripodi J, Bunting K, Najfeld V, Demichelis F, Melnick AM, Elemento O, Rubin MA: Oncogene-mediated alterations in chromatin conformation. *Proc Natl Acad Sci USA*. May 21. [Epub ahead of print], Highlighted in Nature, 2012.

Faculty Publications

continued

Elemento O, **Rubin MA**, **Rickman DS**: Oncogenic transcription factors as master regulators of chromatin topology: a new role for ERG in prostate cancer. *Cell Cycle* 11:3380-3, 2012. Epub Aug 23, 2012.

Giulino Roth L, Wang K, MacDonald TY, Mathew S, Tam Y, Cronin MT, Palmer G, Lucena-Silva N, Pedrosa F, Pedrosa M, Teruya-Feldstein J, Bhagat G, Alobeid B, Leoncini L, Bellan C, Rogena E, Pinkney KA, **Rubin MA**, Ribeiro RC, Yelensky R, **Tam W**, Stephens PJ, **Cesarman E**: Targeted genomic sequencing of pediatric Burkitt lymphoma identifies recurrent alterations in anti-apoptotic and chromatin-remodeling genes. *Blood* Oct 22 (Epub ahead of print).

Esgueva R, **Park K**, **Kim R**, **Kitabayashi N**, Barbieri CE, Dorsey PJ, Abraham C, Banerjee S, Leung RA, Tewari AK, Terry S, **Shevchuk MM**, **Rickman DS**, **Rubin MA**: Next generation prostate cancer biobanking: towards a processing protocol amenable for the International Cancer Genome Consortium. *Diagn Mol Pathol* 21:61-8, 2012.

Boiocchi L, Espinal-Witter R, He B, **Subramaniam S**, **Mathew S**, Nie K, Cerutti A, Coleman M, **Knowles DM**, **Orazi A**, **Tam W**: Composite chronic lymphocytic leukemia/small lymphocytic lymphoma and follicular lymphoma are biclonal lymphomas: a report of two

cases. *Am J Clin Pathol* 137:647-659, 2012.

Visco C, Li Y, Xu-Monette ZY, Miranda RN, Green TM, Li Y, Tzankov A, Wen W, Liu WM, Kahl BS, d'Amore ES, Montes-Moreno S, Dybkær K, Chiu A, **Tam W**, **Orazi A**, et al: Comprehensive gene expression profiling and immunohistochemical studies support application of immunophenotypic algorithm for molecular subtype classification in diffuse large B-cell lymphoma: A report from the International DLBCL Rituximab-CHOP consortium program study. *Leukemia* 26:2103-13, 2012.

Ballon G, Chen K, Perez R, **Tam W**, **Cesarman E**: Kaposi sarcoma herpesvirus (KSHV) vFLIP oncoprotein induces B cell transdifferentiation and tumorigenesis in mice. *J Clin Invest* 121:1141-1153, 2011.

Oricchio E, Nanjangud G, Wolfe AL, Schatz JH, Mavrakis KJ, Jiang M, Liu X, Bruno J, Heguy A, Olshen AB, Socci ND, Teruya-Feldstein J, Weis-Garcia F, **Tam W**, **Shaknovich R**, Melnick A, Himanen JP, Chaganti RSK, Wendel HG: The eph-receptor $\alpha 7$ is a soluble tumor suppressor for follicular lymphoma. *Cell* 147:554-564, 2011.

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Tam W: PRDM1 (PR domain containing 1, with ZNF domain). *Atlas Genet Cytogenet Oncol Haematol* 16:135-140, 2012.

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Mackinnon AC, **Wang YL**, Sahota A, Yeung CC, Weck KE: Certification in molecular pathology in the United States: An update from the association for molecular pathology training and education committee. *J Mol Diagn* 14:541-9, 2012.

Hannah J, **Zhou P**: Maximizing target protein ablation by integration of RNAi and protein knockout. *Cell Res* 21:1152-4. PMID: PMC3129447, 2011.

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Lee J, **Zhou P**: Pathogenic role of the CRL4 ubiquitin ligase in human disease. *Front Oncol* 2:21. doi: 10.3389/fonc.2012.00021, 2012. ■

Newly Awarded Grants in Pathology

▲ National Institutes of Health National Cancer Institute

Title: Modeling KSHV latency in vivo
Principal Investigator: Ethel Cesarman, MD, PhD
Period of Support: 09/04/12-06/30/17
Total Direct Costs: \$971,890

▲ National Institutes of Health National Cancer Institute

Title: Molecular Signatures of Lethal and Indolent Prostate Cancer
Principal Investigator: Mark A. Rubin, MD
Period of Support: 07/23/12-05/31/17
Total Direct Costs: \$1,655,288

▲ Prostate Cancer Foundation Mazzone Challenge Award

Title: Interrogation of aberrant DNA repair in sporadic prostate cancer
Principal Investigator: Mark A. Rubin, MD
Period of Support: 08/01/12-07/31/14
Total Direct Costs: \$250,000

▲ Prostate Cancer Foundation/Millennium Pharmaceuticals Creativity Award

Title: Precision Medicine Sequencing
Principal Investigator: Mark A. Rubin, MD
Period of Support: 08/01/12-07/31/14
Total Direct Costs: \$300,000

▲ Prostate Cancer Foundation SU2C Award

Title: Precision Therapy of Advanced Prostate Cancer
Principal Investigator: Mark A. Rubin, MD
Period of Support: 08/01/12-07/31/15
Total Direct Costs: \$377,501

▲ National Institutes of Health National Cancer Institute (Subaward)

Title: Systematic Genetic Characterization of African American Prostate Cancer
Principal Investigator: Mark A. Rubin, MD
Period of Support: 07/15/12-06/30/17
Total Direct Costs: \$166,000

▲ Prostate Cancer Foundation Young Investigator Award

Title: Nano-Targeting Estrogen Receptor regulated Long Non Coding RNA in Prostate Cancer Progression
Principal Investigator: Dimple Chakravarty, PhD
Period of Support: 03/01/12-02/28/15
Total Direct Costs: \$225,000

▲ Sidney Kimmel Cancer Foundation Kimmel Scholars Award

Title: Function of FoxO in EGFR-targeted gliomas
Principal Investigator: Jihye Paik, PhD
Period of Support: 07/01/12-06/30/14
Total Direct Costs: \$200,000

▲ National Cancer Institute National Cancer Institute (Subaward)

Title: The Role of Bioactive Lipids in Inflammation and Cancer

Principal Investigator: Timothy Hla, PhD
Period of Support: 06/01/12-05/31/17
Total Direct Costs: \$1,567,500

▲ National Institutes of Health National Heart, Lung, Blood Institute (Subaward)

Title: Personalization of Therapeutic Efficacy and Risk
Principal Investigator: Timothy Hla, PhD
Period of Support: 08/01/12-5/31/17
Total Direct Costs: \$420,000

▲ The Methodist Hospital Research Institute Cancer Pilot Project

Title: Multistage vector-siRNA targeting of lymphoma and multiple myeloma
Principal Investigator: Selina Chen-Kiang, PhD
Period of Support: 08/01/12-07/31/13
Total Direct Costs: \$20,000

▲ Leukemia & Lymphoma Society TAP Correlative Study

Title: A Phase I trial of timed sequential administration of PD0332991 followed by ara-C and Mitoxantrone
Principal Investigator: Selina Chen-Kiang, PhD
Period of Support: 06/12/12-06/11/15
Total Direct Costs: \$136,200

▲ Leukemia & Lymphoma Society Translational Research Grant

Principal Investigator: Y. Lynn Wang, MD, PhD
Period of Support: 10/01/12-09/30/15
Total Direct Costs: \$540,054

2013 CME Conference Calendar

Reserve early. Space is limited! CME Information/Registration: Ms. Jessica Pfeifer (212)746-6464 • jep2018@med.cornell.edu



Miami • January '13

Tutorial on Neoplastic Hematopathology

► **January 21-25, 2013**

Four Seasons Hotel Miami
Miami, Florida

Course Director: **Daniel M. Knowles, MD**
Associate Course Director: **Attilio Orazi, MD**

Targeted Audience

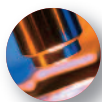
Pathologists, pathologists-in-training
and medical oncologists/hematologists

Course Goals and Objectives

This course is designed to update physicians on the latest advances in Neoplastic Hematopathology. The program will consist of lectures, case presentations and discussions designed to provide pathologists, pathologists-in-training and medical oncologists/hematologists with an in-depth discussion of diagnostic problems that arise in neoplastic hematopathology. In addition to discussions of recent advances in the morphologic classification of hematopoietic tumors, the application and interpretation of immunological and cytochemical studies and molecular techniques in the diagnosis and classification of these diseases will be presented.

Accreditation

36.25 AMA PRA Category 1 Credit(s)[™] and
20.0 SAM Credit(s)



NYC • July '13

4th Annual Papanicolaou Tutorial on Diagnostic Cytopathology

► **July 27-28, 2013**

Weill Auditorium and Archbold Commons
New York, New York

Course Director: **Rana S. Hoda, MD**

Targeted Audience

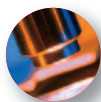
Cytopathologists, pathologists, residents
and cytotechnologists

Course Goals and Objectives

This 2-day program will consist of lectures, case presentations and discussions designed to

4th Annual Papanicolaou Tutorial on Diagnostic Cytopathology *con't*

provide pathologists with a special interest in cytopathology, pathologists-in-training and cytotechnologists with an in-depth discussion of current criteria and changing concepts in Diagnostic Cytopathology. Diagnostic cytopathology performs a vital role in the evaluation and treatment of patients with non-neoplastic and neoplastic disease. This course is needed to advance the specialized knowledge of practicing cytologists and further, to encourage the exploration of current approaches and concepts in classification, differential diagnosis and management. It is designed to provide updated practical, problem-solving knowledge and information for cytopathologists, pathologists, residents and cytotechnologists.



NYC • October '13

NEW! Surgical Pathology 2013: The Weill Cornell NYC Course

► **October 10-12, 2013**

NY Academy of Sciences
New York, New York

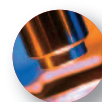
Course Director: **Rhonda K. Yantiss, MD**

Targeted Audience

General surgical pathologists and
pathologists-in-training

Course Goals and Objectives

This course is designed to update physicians on advances in our understanding of surgical pathology diseases, address problems faced during the pathologic evaluation of tissue samples, and provide pathologists with a framework for interpretation of both histologic patterns of disease and results of molecular analyses. The program will consist of lectures, case presentations and discussions designed to provide attendees with an in-depth discussion of diagnostic problems that arise when evaluating materials obtained from the gastrointestinal tract, pancreas, and liver, and inform them regarding the application and interpretation of immunohistochemical and molecular studies in the diagnosis and classification of these diseases.



Miami • November '13

5th Annual Symposium Tutorial on Pathology of the GI Tract, Pancreas and Liver

► **November 18-22, 2013**

Four Seasons Hotel Miami
Miami, Florida

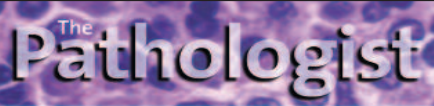
Course Director: **Rhonda K. Yantiss, MD**

Targeted Audience

General surgical pathologists and
pathologists-in-training

Course Goals and Objectives

This course is designed to update physicians on advances in our understanding of gastrointestinal diseases, address problems faced during the pathologic evaluation of tissue samples, and provide pathologists with a framework for interpretation of both histologic patterns of disease and results of molecular analyses. The program will consist of lectures, case presentations and discussions designed to provide attendees with an in-depth discussion of diagnostic problems that arise when evaluating materials obtained from the gastrointestinal tract, pancreas, and liver, and inform them regarding the application and interpretation of immunohistochemical and molecular studies in the diagnosis and classification of these diseases.



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The Pathologist is an annual publication of the Department of Pathology and Laboratory Medicine at NewYork-Presbyterian Hospital/Weill Cornell Medical Center.

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