



Director's Corner

J. Brooks Jackson, M.D., M.B.A.

The past year of 2011 had a number of successful highlights and challenges for Johns Hopkins Pathology. Perhaps most impressive in the area of research was the recognition that Johns Hopkins Pathology faculty and staff were part of the team that reported in



Dr. J. Brooks Jackson

the *New England Journal of Medicine* (NEJM 2011;365:493) that the sexual transmission of HIV could be reduced by 96% using antiretrovirals to treat infected partners in HIV discordant relationships. This accomplishment was recognized as the "Breakthrough of the Year" for 2011 by the journal *Science*. Susan Eshleman, M.D., Ph.D. and her team are to be congratulated for their contributions to this important study. In addition, Pathology faculty published 200 first/last author papers in 2011, with many more likely to come given that research funding through the end of the year was up 11% despite the challenge of flat NIH funding.

In terms of education, the Pathobiology graduate student program has grown to 49 students with the addition of ten new students this past year. The number of residents has stabilized at 34/year and continues to produce a number of future faculty

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Spotlight: Division of Clinical Chemistry

Introduction

Clinical chemistry is concerned with the measurement of chemicals in body fluids or tissues, such as enzymes, proteins, hormones, carbohydrates, drugs, and toxins. Such measurements play a critical role in the prevention, diagnosis, and management of a myriad of diseases including diabetes, hepatitis, cancer, and many others. Faculty members in the Division maintain active roles in clinical (diagnostic) service, research, and education.

The Division of Clinical Chemistry is the largest division in the Department of Pathology. Under the leadership of director Dr. Daniel W. Chan and manager Lydia Nelson, clinical chemistry operates twenty-four hours a day, seven days a week with a staff of nearly 100 medical laboratory professionals, including six core faculty and three clinical chemistry

postdoctoral fellows. Annual diagnostic workload volume is over 8 million tests per year encompassing more than 200 different laboratory tests. Clinical chemistry plays an integral role in the Core Laboratory by providing general chemistry, special chemistry, therapeutic drug monitoring, clinical toxicology, emergency department laboratory, and critical care laboratory services. If a Hopkins provider needs lab results, chances are that some of the testing will be done in clinical chemistry.

Diagnostic Services

The general chemistry section is led by director Dr. Danni Li and supervisor Greg Gerhardt. General chemistry is the workhorse of Core Lab testing blood, urine, and body fluid specimens. Three of the most common tests ordered by Hopkins providers are basic metabolic panel (BMP), comprehensive metabolic panel

(CMP), and lipid profiles, all of which are done in general chemistry. The majority of general chemistry tests are performed on an automated chemistry system (Roche Hitachi) which uses robotics to centrifuge, aliquot, sample, and test specimens using ion selective electrode potentiometry and various spectrophotometric methodologies for kinetic, end-point, and immunology-based assays. The laboratory information system (Pathology Data System) is directly connected to the chemistry analyzers enabling over 70% of results to be auto-verified, i.e. certified without manual review.

Special chemistry, directed by Dr. Lori Sokoll and supervised by Mary Jo Bill, has the greatest variety in Core Lab in terms of offered tests and instrument platforms and

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for the department here and at other academic institutions. Several new faculty recruited from our training programs this past year and next include Toby Cornish, M.D., Ph.D., in Informatics, Amy Tatsas, M.D. in Cytopathology, Danni Li, Ph.D. in Clinical Chemistry, and Justin Bishop, M.D. and Ashley Cimino-Mathews, M.D. in Surgical Pathology.

On the clinical side of our mission, the test menu expanded, patient safety goals were achieved, budget goals were met, and the department had a successful CAP inspection. The number of hospitals within Johns Hopkins Medicine increased to 6 with the addition of Sibley Hospital in Washington, DC and All Children's Hospital in St. Petersburg, Florida. In November 2011, the new \$1.1 billion clinical building on The Johns Hopkins Hospital campus was completed and is due to open in April 2012 (see page 6). Pathology will receive significantly more space in the new building for the blood bank, automated core laboratories, neuropathology, and cytopathology for fine needle aspirations.

The expansion of the Hopkins' health care system presents a number of opportunities and challenges for Pathology. With the emphasis on cost reduction at the national level, a larger system will provide economies of scale for cost reduction through larger purchasing orders, standardization and centralization of services, and bringing more expensive send out tests in house given the larger volumes. On the other hand, the integration of our new partners will require significant effort on everyone's part in the planning and coordination in the evolution of Johns Hopkins Medicine as it moves towards an Accountable Care Organization model while maintaining our tripartite mission. Likely reductions in hospital reimbursement and NIH funding will only increase the pressure on our faculty and staff in the areas of research, education and clinical service to generate the necessary resources to fulfill our mission. Given the innovation and hard work ethic of our faculty and staff, I have little doubt we will overcome these challenges.

The Johns Hopkins Pancreas Pathology Atlas: a new iPad app

Tablet computers are changing how we interact with and consume media. The iPad is rapidly penetrating the world of medicine, and many of its key features: portability, security, long battery life, wireless connectivity and an intuitive multitouch interface make it attractive for use in the medical setting. The iPad is equipped with a large storage capacity, a robust CPU and a stunning, high density display, making it ideal for delivering rich interactive experiences that incorporate high resolution images and animation. Led by Ralph Hruban, M.D., the Department of Pathology, in collaboration with the Department of Art as Applied to Medicine, has successfully harnessed these qualities to produce a novel tool for teaching pathology. The Johns Hopkins Atlas of Pancreas Pathology iPad application ("app") is a teaching atlas aimed at residents, fellows and practicing pathologists.

The Johns Hopkins Atlas of Pancreas Pathology is the first comprehensive pathology atlas released as an iPad app. The app is composed of several modules; these include the atlas proper, an interactive diagnostic teaching algorithm, and a quiz module. At the heart of the atlas is a database of over 1,400 high-resolution images, including 938 gross photographs and 541 photomicrographs. Norman J. Barker was instrumental in taking the photomicrographs and the post-processing of these images, and Toby C. Cornish, M.D., Ph.D., designed the image database model.

The atlas module covers 115 diagnostic entities and is fully searchable by both diagnosis and

the features present in the image. In addition to the WHO standard diagnostic terms, the atlas recognizes 105 synonyms, including older and non-preferred terminology: a search for the term "acinic cell carcinoma" will return a gallery of image results for acinar cell carcinoma, for example. Image galleries can be searched and browsed using standard iPad navigational metaphors, but the atlas also incorporates a number of innovative user interface features. The gallery comparison feature, for example, displays any two diagnoses or features side-by-side facilitating direct comparison.

The app incorporates a teaching algorithm that employs a unique interactive interface to teach pancreatic pathology. The design of the algorithm module was led by Bona Kim, M.A., the 2011 recipient of the Inez Demonet scholarship, a national award from the Vesalius Trust given annually to the student who exhibits the most outstanding merit and potential in the field of medical illustration. The teaching algorithm was the subject of Bona's Master's thesis, *Medical Illustrations and the iPad: A New Approach to Education for Pancreatic Cancer*. Bona created

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Spotlight: Division of Clinical Chemistry

includes many complex manual tests. The special chemistry test menu includes over 80 different assays for hormone testing, cardiac markers, tumor markers, hepatitis testing, and miscellaneous other tests such as sweat chloride and fetal fibronectin. Due to the specialized nature of these tests, special chemistry staff must work closely with Hopkins providers to ensure that these tests are used appropriately to diagnose and/or monitor a patient's condition.

The Clinical Toxicology Laboratory is directed by Dr. William Clarke with supervision provided by Mary Jo Bill. Testing includes toxicology screens and therapeutic drug monitoring using gas chromatography, high performance liquid chromatography, and tandem mass spectrometry, as well as other technologies. Dr. Clarke also directs the Point of Care Testing (POCT) section which provides technical support to over 3,000 POCT operators at Hopkins. Glucose is the most utilized point of care test offered with over 30,000 tests performed monthly at a total of 90 different test sites.

Satellite testing in the Emergency Department (ED) and in the Critical Care Lab in the Halsted Building is also provided by the Division of Clinical Chemistry. The ED Lab is directed by Dr. Li and lead Conchita Hong. The Critical Care Lab is directed by Dr. Clarke and lead technologist Mike Engelstad. In addition to testing specimens in these satellite labs, clinical chemistry staff provide technical support for blood gas testing performed in other areas of the hospital such as the NICU, PICU, and oncology.

Research

Faculty in the Division of Clinical Chemistry have diverse research interests, ranging from the very basic to clinical and translational. A few of the activities of each faculty member are highlighted.

Dr. Daniel W. Chan is founder and director of the Center for Biomarker Discovery at Johns Hopkins University. In addition, he is a member of the NCI's Clinical Proteomic Tumor Analysis Consortium. Dr. Chan is interested in the development and application of proteomic and immunologic techniques in the diagnosis, management, and understanding of cancer. Cancer biomark-

ers can be identified using high throughput approaches, such as mass spectrometry. Subsequently, antibodies and immunoassays are developed for clinical studies and bioinformatics is used to analyze and enhance the clinical usefulness of the biomarkers for the early detection of cancer. Studies are being conducted on patient specimens from prostate, breast, colorectal, and ovarian cancer.

Dr. William Clarke's research focuses on the development of analytical methods for drug analysis. These efforts include the development and implementation of tandem mass spectrometric methods for measurement of one or multiple drugs in a single sample, and investigation of alternative matrices for drug testing. He is also active in the development of methods using liquid chromatography coupled to high-resolution mass spectrometry for toxicology screening and DNA analysis. Additional interests include pharmacogenomics and the investigation of techniques for measurement of free drug concentrations, and the applicability of these measurements in the clinical environment.

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Front row: left to right: Li Chen, Yuan Tian, Hui Zhang, Zheng Zhang, Daniel Chan, Lori Sokoll, William Clarke, Danni Li, Jennifer Dillard
Middle row: left to right: Claudia Henemyre-Harris, Anna Fuezery, Deniz Baycin, Mark Marzinke, Debra Elliott, Jered Pasay, Autumn Breaud, Robert Harlan
Back row: left to right: Vishaldeep Sarkaria, Shunag Yang, Xiangchun Wang, Caitlin Choi, Sabitha Schools, Nkechinyere Emezienna

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Spotlight: Division of Clinical Chemistry

Dr. Lori Sokoll's primary research interest is the investigation of serum tumor markers for the early detection, diagnosis, staging, and monitoring of cancer. Her focus is to develop new tumor markers and to develop new applications for existing markers in order to increase their clinical utility. She is primarily studying markers for prostate cancer and breast cancer. Other research interests include immunoassay automation and intraoperative hormone measurements.

Dr. Danni Li is interested in using the aberrant glycan changes associated with carcinogenesis and cancer progression to improve on existing clinical cancer biomarkers and develop new cancer biomarkers with better sensitivity and specificity. To this end, she has developed approaches for the highly sensitive glycan profiling of glycoproteins and for the targeted analysis of specific glycan structures on glycoproteins. Currently, she is applying these tools to the study of biomarkers for aggressive prostate cancer.

Dr. Hui Zhang is a member of the NCI's Early Detection Research Network initiative as well as the NCI's Clinical Proteomic Tumor Analysis Consortium. Her primary research goal is to study protein modification on the proteome scale and the effects of modification on protein function and disease progression. Her efforts focus on developing high-throughput technologies to isolate and identify protein modifications. In particular, her group has developed high throughput glycoproteomics and glycomics methods using mass spectrometry and microarrays to profile glycoproteins and glycans. Currently, the research interests in her group include further development and application of these technologies to understand the mechanism of protein modifications on disease development and identification of protein glycosylations associated with disease progression for the early detection and monitoring of therapeutics.

What used to be considered as a single diagnosis may actually consist of a number of different phenotypes with distinguished disease pathways and varying genomic and proteomics expression patterns. Dr. Zhen Zhang is interested in deriving new mathematical and computational algorithms

to identify such patterns for biomarker discovery and use them to establish predictive models for the diagnosis and management of diseases. Dr. Zhang focuses primarily on tumor biomarker discovery using high throughput proteomics approaches. Using such tools, his group developed the first protein-based in vitro diagnostic multivariate assay (OVA1) approved by the FDA. Like Drs. Daniel W. Chan and Hui Zhang, Dr. Zhen Zhang is a member of the NCI's Clinical Proteomic Tumor Analysis Consortium.

Education

Clinical chemistry is active in a variety of educational programs. Hopkins pathology residents spend two months rotating through all areas of clinical chemistry, with some residents opting for an additional elective month rotation in the division.

Johns Hopkins is one of only nineteen programs in the United States and Canada to offer a two-year ComACC-approved fellowship to provide M.D. pathologists and Ph.D. scientists with the analytical, clinical, research, and management experience towards specialization and board certification in clinical chemistry. Fellows receive training in the operation of a clinical laboratory, quality control and assurance, laboratory management, analytical methodologies, and test interferences. Fellows are also involved in clinical consultation and problem solving through their on-call responsibility. During their two years in clinical chemistry, fellows participate in research projects and develop expertise in a specific area of clinical chemistry research. The clinical chemistry training program has been very successful. Three of the current faculty, Drs. Sokoll, Clarke, and Li, completed their fellowships here while other fellows went on to careers at other academic institutions as well as in the private and government sectors.

The Division of Clinical Chemistry also provides a four-week clinical rotation for students enrolled in the medical laboratory sciences programs of several in-state and out-of-state schools. The rotation provides first-hand experience in general and special chemistry, allowing students to further develop the knowledge and techniques learned in their classroom courses. Other educational efforts in

clinical chemistry include continuing education for laboratory and administrative staff, and community outreach programs such as a partnership with Dunbar High School.

New Frontiers

April 2012 will bring great change as the Core Lab, and most of the Division of Clinical Chemistry, will relocate to the new clinical building in the Sheikh Zayed Critical Care Tower. The new lab design provides an open layout for further integration and synergy between the various sections of Core Lab such as chemistry, hematology, customer service, and phlebotomy. The pneumatic tube system will be reconfigured to streamline transport of specimens from various locations throughout the hospital to the Core Lab. In addition to the new space, clinical chemistry staff will embark on a new laboratory information system called SoftLab which generates a central location for entering, reviewing, and analyzing data and links together all lab operations and support services.

The new Core Lab will be equipped with a new chemistry automation line, complete with ten analyzers to minimize downtime due to maintenance, equipment failure, and system upgrades. The new line consolidates platforms to reduce instrument footprint, contract management, maintenance, and QC requirements that are necessary for stand-alone analyzers. One of the most remarkable features of the new line is that it will contain a refrigerated storage unit that can hold 27,000 specimens. Using a hands-free robotic system, the line will automatically archive, store, and dispose of specimens. In addition, lab staff will no longer have to spend valuable time hunting for specimens in the refrigerator as the chemistry line will retrieve specimens from the storage unit on command through the computer. These advances in chemistry automation, combined with a lean approach to specimen processing and work flow will enable clinical chemistry to better support Hopkins patients and providers.

New Grants and Contracts Awarded to Pathology Faculty, 1/01/11-12/31/11

Faculty Member	Award Type	Agency	Dates	Total Funding (\$)
Berman, David	Contract	Myriad Genetics	2/25/11-2/24/14	419,049
Brandt, William	Grant	TEDCO	6/30/11-5/31/13	110,000
Burns, Kathleen	Grant	Instituto Superiore Di Sanita	9/1/11- 12/30/12	28,600
Carroll, Karen	Contract	Becton Dickinson	1/21/11-6/21/11	28,350
Carroll, Karen	Contract	Becton Dickinson	5/6/11-7/5/11	50,950
Carroll, Karen	Contract	BD Diagnostics	8/30/11-12/30/11	24,308
Carroll, Karen	Contract	Becton Dickinson	10/1/11-2/1/12	81,542
Chan, Daniel	U24 Grant	NIH/NCI	8/1/11-7/31/14	5,804,730
Clarke, William	Grant	Department of Defense	12/30/10-12/29/12	100,000
Clarke, William	Contract	Siemens Medical Solutions	8/8/11-8/7/12	29,300
DeMarzo, Angelo	Grant	Department of Defense	9/30/11-9/29-14	737,868
Dumler, Steven	R21 Grant	NIH/NIAID	8/1/11-7/31/13	445,500
Eberhart, Charles	Grant	Children's Cancer Foundation	11/1/11-10/31/12	56,493
Eberhart, Charles	Contract	Merck & Company	11/1/11-10/31/12	50,000
Epstein, Jonathan	Contract	Aperio Technologies	12/16/11-12/15/12	42,000
Eshleman, James	Grant	AACR	7/1/11-6/30/13	198,677
Eshleman, Susan	R01 Grant	NIH/NIAID	8/1/11-7/31/15	3,010,769
Fuezy, Anna	Fellowship	American Assn of Clinical Chemistry	7/1/11-6/30/12	50,000
Gabrielson, Edward	Grant	LUNgevity Foundation	7/15/11-7/14/13	200,000
Hruban, Ralph	Grant	Michael J. Fox Foundation	4/20/11-6/20/11	5,000
Hruban, Ralph	Grant	The Stringer Foundation	7/1/11-6/30/12	150,000
Hung, Chien-Fu	Grant	Health Banks USA	11/15/10-11/14/11	172,000
Jagu, Subhashini	Contract	Immunobiology Limited	5/1/11-4/30/12	17,200
Karimi, Parisa	Fellowship	Conquer Cancer Foundation	8/1/11-7/22/12	115,000
Koliatsos, Vassilis	Grant	Applied Physics Laboratory	1/1/11-1/31/13	150,213
Koliatsos, Vassilis	Grant	TEDCO	6/30/11-6/29/14	690,000
Kurman, Robert	Grant	Department of Defense	9/30/11-9/29/16	12,000,000
Martin, Lee	Contract	Congenia SRL	12/1/11-11/30/12	20,000
Marzinke, Mark	Fellowship	American Assn of Clinical Chemistry	7/1/11-6/30/12	5,000
Raabe, Eric	Grant	Knights Templar Eye Foundation	7/1/11-6/30/12	40,000
Raabe, Eric	Grant	St. Baldrick's Foundation	7/1/11-6/30/14	330,000
Raabe, Eric	Grant	Alex's Lemonade Foundation	7/1/11-6/30/13	80,000
Riedel, Stefan	Contract	Becton Dickinson	12/16/10-12/15/11	35,779
Riedel, Stefan	Contract	Quidel Corporation	1/1/11-12/31/11	57,030
Riedel, Stefan	Contract	Cubist Pharmaceuticals	9/1/11-2/29/12	59,644
Roden, Richard	Contract	Medigene	5/1/11-4/30/12	113,639
Roden, Richard	Grant	V Foundation for Cancer Research	11/1/11-10/31/14	600,000
Rodriguez, Fausto	Grant	Childhood Brain Tumor Foundation	9/1/11-8/31/12	35,000
Sadegh-Nasseri, Scheherazade	R56 Grant	NIH/NIAID	8/1/11-7/31/12	328,000
Savage, William	Grant	American Society of Hematology	7/1/11-6/30/13	150,000
Schneck, Jonathan	R01 Grant	NIH/NCI	4/1/11-	1,593,900
Shan, Hua	Contract	NIH/NHLBI	3/21/11-3/20/13	2,011,209
Shih, Ie-Ming	R21 Grant	NIH/NCI	12/13/11-11/30/13	356,400
Sokoll, Lori	Contract	Roche Diagnostic Systems	3/1/11-5/31/11	14,186
Steenbergen, Charles	R01 Grant	NIH/NHLBI	8/1/11-4/30/15	1,620,000
Tobian, Aaron	Grant	Doris Duke Charitable Foundation	7/1/11-6/30/14	486,000
Tobian, Aaron	Grant	NIH/NIAID	7/1/11-6/30/16	683,770
Troncoso, Juan	Contract	OCME	7/1/11-4/22/12	66,783

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New Grants and Contracts Awarded to Pathology Faculty, 1/01/11-12/31/11

Faculty Member	Award Type	Agency	Dates	Total Funding (\$)
Troncoso, Juan	Contract	NIH/NIA	9/1/11-8/31/12	23,850
Valsamakis, Alexandra	Contract	Roche Molecular Systems	3/23/11-5/30/11	16,545
Wong, Philip	Grant	Department of Defense	7/1/11-6/30/13	656,000
Zhang, Sean	Contract	Abbott Molecular	11/1/11-4/30/12	34,034
Total				\$34,184,318

How Pathology Fits into the Mosaic of the New Clinical Building

The dust has settled and the end is nearly in sight! Pathology occupants of the new Johns Hopkins Hospital clinical building will include the Core Lab, the Critical Care Lab, the Blood Bank, Neuropathology physician offices, Surgical Pathology Medical Records, and satellite space for the Cytopathology fine needle aspiration team.

If the schedule stays on target, the Core Lab will move to the new clinical building officially named the Sheikh Zayed Tower on April 21, 2012. Approximately 300 Core Lab employees and 59 instruments will move from the Meyer basement where the Lab has been located since the early 1980s. The Core Lab will occupy a 23,000-square-foot automated laboratory for clinical chemistry and hematology testing in the basement. The addition of a new Roche Diagnostics robotics system with ten analytical instruments, along with a new hematology automation line, will provide enough redundancy and analytical horsepower to meet the clinical needs for all of our patients in one clinical area. The Hospital's Emergency Department (ED) will be located directly above the Core Lab, so the ED Lab has been folded into the Core Lab space. The Critical Care Lab will be relocated to Level 5, adjacent to the Cardiovascular ORs.

Our Transfusion Medicine Division is scheduled to move into the new building in several phases. The Blood Bank on Weinberg 2 will close permanently and relocate to New Clinical Building level 3 in early February 2012. The main Blood Bank on Carnegie 6 will relocate by May 1, 2012. This phased approach will provide redundancy in laboratory testing and blood product services to prevent any lapse in clinical services through the closing of the last GOR room on the evening of April 30. Our new full-service Blood Bank and approximately 65 faculty, fellows, management and lab staff will be located adjacent to the new GORs and the existing Weinberg 3 ORs. The GORs on Levels 3, 4 and 5

will be able to easily utilize our four new fully-automated HemoSafe® refrigerators that dispense crossmatched blood units on demand. We will continue to service the Weinberg ORs with an existing HemoSafe® refrigerator.

Cytopathology will continue to be located on the 4th floor of the Pathology building, but will have additional space in the new building. This will allow the cytopathologists and cytotechnologists to be in close proximity to the patients in the bronchoscopy/endoscopy and ultrasound units who need fine needle aspirations. Specimens from the new building will be couriered to Pathology 4 several times a day.

The Surgical Neuropathology Consultation Service will move in April from its current location in Pathology 7 to the new building on the second level. This location will bring neuropathologists, Drs. Burger and Rodriguez, closer to the Weinberg building where Neuropathology frozen sections will be performed.

Surgical Pathology Medical Records relocated to the new building in late November 2011, allowing expansion of the grossing area space in the Weinberg building.

The Core Lab, the Blood Bank, Cytopathology, and Surgical Pathology will be among the dozens of areas in the new building that will rely upon on a new, state-of-the-art pneumatic tube system. Each tube station will have a dedicated inbound and outbound pipe which should eliminate the outbound backups of the carriers.

The preparation for the move, including the design and blueprints, new instrument purchases, testing and validations, logistics and interfaces, combined with a new laboratory information system has required a tremendous collaboration among faculty, administration, managers and supervisors, lead techs, the rank and file of our laboratory staff, other departments, and our vendors. This is an exciting time, and the Department is appreciative to everyone who played a part in making the successful transition.



Department of Pathology Incoming House Staff, 2011-2012

Alex Baras

Alex was born in Silver Spring, Maryland. He earned his B.S. in Biology from Georgetown University and completed thesis work utilizing functional genomics to uncover important cellular regulators in failed lung development and disease-induced lung degeneration. Alex earned his medical degree and Ph.D. at the University of Virginia, and also found time to mentor graduate and undergraduate students in translational research and bioinformatics analysis. For his Ph.D. thesis, he identified a novel gene that is commonly upregulated in several types of cancer. For his work in characterizing the intracellular location of the gene and the effects of the gene product on reactive oxygen species and apoptosis, Alex was invited to rename the gene Vesicular Overexpressed in cancer Prosurvival Protein 1 (VOPP1). Alex is fluent in Greek. When he isn't designing innovative approaches to analyze mass spectrometry data or microarray datasets, he enjoys skiing and golfing. Alex will be pursuing AP training.



Jamal Carter

Jamal was born in sunny Miami, Florida. He was awarded a B.S. in Biological Science from Florida State University. While in medical school at the University of Florida, he participated in an NIH-sponsored summer research program, investigating aberrant GM-CSF induced STAT5 activity in autoimmune myeloid cells. He later completed a Medical Student Research Program Fellowship funded by the NIH, in which he studied the differentiation of therapy-resistant and therapy-susceptible glioblastoma stem cells in terms of activation levels of signal transduction pathways. Jamal also served as president of the University of Florida Chapter of the Student National Medical Association and mentored undergraduate students interested in careers in medicine. Jamal is an avid NPR listener and also enjoys listening to health/medicine podcasts. He likes weightlifting and is an exotic pet enthusiast. Jamal will be pursuing AP/CP training.



Nathan Cuka

Nathan was born in Omaha, Nebraska. He graduated magna cum laude from the University of Notre Dame with a B.S. in Physics. While completing his undergraduate studies, he helped construct a particle accelerator and investigated polarization of Compton scattered gamma rays. After college, he worked as a software engineer, java developer, and computer analyst to create multi-tiered software architecture, data models, and business intelligence suites. His interest in medicine took him to the University of Kansas School of Medicine, where he earned his medical degree and graciously volunteered time at the community free clinic, serving as the Director of Technology and Supplies and providing healthcare to the medically underserved population. Nathan's interests in research led him to Valencia, Spain, where he studied cellular transport mechanisms involved in fatal neurodegenerative disorders. Nathan also enjoys cycling and is a licensed racer with the United States Cycling Federation. Nathan will be pursuing AP/CP training.



Whitney Green

Whitney was born in Heidelberg, Germany. She earned her B.A. degree in Ecology and Evolutionary Biology from Princeton University, graduating magna cum laude. As an undergraduate student, she spent several summers as research intern at the Broad Institute of Harvard and MIT, studying genetic risk factors for type II diabetes and autoimmune disease. In addition, Whitney completed a senior thesis at Princeton University entitled "More than Skin Deep: The Reality of Biological Race and its Implication." Whitney then completed her M.D. degree at The Johns Hopkins University School of Medicine. While in medical school, Whitney acted as a summer research intern for the American Federation for Aging Research, analyzing the association between nutrition and cardiovascular health in the elderly. In addition, Whitney was elected by her medical school classmates to serve on the medical school admissions committee in her fourth year. In addition to her academic pursuits, Whitney enjoys cooking and baking. Whitney is also an athlete and avid "power lifter." Whitney will be pursuing AP/CP training.



Doreen Nguyen

Doreen was born in San Diego, California. She earned her B.S. in Animal Physiology and Neuroscience from the University of California in San Diego, graduating summa cum laude. As an undergraduate, Doreen volunteered in multiple medical clinics, including underserved community clinics in Mexico as well as the Student Health Clinic at UCSD. In addition, she participated in multiple research projects, including functional MRI imaging in patients with autism and immunohistochemical analysis of calcium channels in neural development. Doreen then completed her M.D. degree at the University of California in San Diego, where in addition to her clinical training, she also undertook an independent study project entitled "Physician and resident opinions of the autopsy in an academic teaching hospital." In her last year of medical school, she became a member of the UCSD School of Medicine Diversity Coalition. Doreen's hobbies include homey pursuits such as knitting and baking, as well as outdoor activities like hiking and kayaking. Doreen will be pursuing AP/CP training.



Scott Robertson

Scott was born in Ann Arbor, Michigan. He earned his B.S. in Biology at Calvin College in Grand Rapids, Michigan. While in Grand Rapids, he worked as a research intern at the Van Andel Research Institute.

During this time, he investigated the contribution of Dkk inhibitor proteins to the Wnt signaling pathway, as well as the use of advanced cytogenetic techniques to characterize the karyotypes of sarcomas. Scott then completed both his M.D. and Ph.D. at the University of Michigan, where his thesis work focused on Jak2 and its role in leptin function. When not in a laboratory, Scott is an outdoor enthusiast and enjoys mountain biking, hiking, and outdoor cooking. Scott will be pursuing AP training.



New Faculty

Deborah Belchis, M.D., Ph.D.

Deborah Belchis, M.D., Ph.D. is a proud New Yorker by birth. She was educated at Albany Medical College and, following a medical internship at the University of Wisconsin, Madison, completed her training in anatomic and clinical pathology at the University of Rochester. Her fellowship was with our own Dr. Fred Askin at UNC Chapel Hill, and she is pleased to be reunited with him at Johns Hopkins Bayview Medical Center. Dr. Belchis is board certified in cytopathology and pediatric pathology. She began her career at Children's Hospital and Research Center in Oakland, California and as the review pathologist on the Children's Cancer Group Neuroblastoma Committee with Dr. Shimada. She joined the faculty at Penn State where she developed an NIH-funded grading system for interstitial cystitis, was the first to recognize the pathologic changes of familial Amish hypercholanemia, and studied the retinoblastoma pathway in osteosarcoma. Dr. Belchis left academia as an associate professor after 10 years, and entered private practice in Baltimore where she has been pathology department chief, director of a number of anatomic and clinical pathology labs, and has been the Cancer Oncology Group institutional pathologist at Sinai Hospital. Her interests include pediatric tumors and pulmonary pathology, and she is currently concluding the clinico-pathologic description of a novel pneumothorax syndrome. In her private life, Dr. Belchis is the mother of a young-at-heart elderly Golden retriever, an enthusiastic member of the local Sherlock Holmes society, and a published poet.



Anne Le, M.D., M.Sc.

Anne Le, M.D., M.Sc. (Quy Hoa Le Thi) obtained her basic science knowledge from the Rene Descartes Paris V University, Cochin Port-Royal School of Medicine in France and her clinical training at Nancy University Hospital Center in France. In 2007, Dr. Le started her research post-doctoral fellowship at Johns Hopkins with Dr. Chi Dang. She studied metabolic alterations in cancer and published three first-author papers and co-authored several others, in high impact journals. Dr. Le joined the Division of Gastrointestinal and Liver Pathology in September 2011, and has been managing her own laboratory studying cancer "metabolomics." Her research is primarily focused on cancer metabolism, specifically studying the key enzymes of glycolysis and glutaminolysis: lactate dehydrogenase A and glutaminase. Her research has shown that the inhibition of these enzymes induced oxidative stress thereby inhibiting tumor progression, demonstrating that targeting these metabolic processes can be used in the near future as a feasible cancer therapy. Using a Metabolomics approach, Dr. Le's laboratory is defining the factors that predict the sensitivity of pancreatic cancers to current chemotherapies and also to her novel small drug-like molecules. Her goal is to characterize and enable targeted selection of patients based upon predicted metabolic response. In addition, Dr. Le has developed an innovative dual fluorescent protein reporter, termed HypoxCR, which can simultaneously detect cells that are hypoxic and/or cycling to study the effects of the tumor's microenvironment on the sensitivity to metabolic inhibitors.



Daniel A. Peterson M.D., Ph.D.

Daniel A. Peterson, M.D., Ph.D. was born an immunologist into a family of farmers. Dan grew up working with his father, uncle and brother on a diversified farm just outside of Lincoln, Nebraska. He studied agriculture at the University of Nebraska-Lincoln where he received a B.S. in Animal Science. He then left farming to pursue his passion for immunology as an M.D./Ph.D. student at Washington University in St. Louis, working with Emil Unanue during his thesis years. His research is focused on basic questions about the factors that determine the impact, level, and specificity of the immune response to different microbes. This interest became focused on the immune response gut microbiota during his postdoctoral work with Jeffrey Gordon at Washington University. He moved back to Lincoln and the University of Nebraska-Gut Function Initiative to study the host-microbe response in a simplified and defined mouse model. Trained as a clinical pathologist he has recently moved to Johns Hopkins Medical School to work in the Department of Pathology as a diagnostic immunologist as well as to continue his work on host-microbial interactions in the gut and defining the role that these play in development of the immune system.

The Peterson laboratory uses a "systems immunology" approach to study the complex systems at play in the host-microbial interactions in the gut in both homeostasis and disease. The laboratory uses metagenomic approaches to study the microbes and microbial taxa that are in healthy states compared to disease states in both human subjects as well as mouse models of disease (from Ulcerative Colitic to Small Bowel transplant). His systems immunology approach relies on simplified models that can only be obtained in gnotobiotic and germ-free mice where the microbial composition in the gut can be controlled or removed from the experiments. The Peterson laboratory is in the process of establishing the only gnotobiotic mouse facility at Johns Hopkins.



New Faculty

Karen Sandell Sfanos, Ph.D.

Karen Sandell Sfanos, Ph.D. grew up in Florida, and completed both undergraduate and masters work at the Florida Institute of Technology in Melbourne, Florida. Her research focus at that time was in marine biology and her Master's thesis work, which focused on characterization of deep sea invertebrate-associated microorganisms, was conducted at the Harbor Branch Oceanographic Research Institute in Ft. Pierce, FL under the direction of Jose Lopez, Ph.D. In 2003, Dr. Sfanos' research focus switched to prostate cancer when she came to The Johns Hopkins University School of Medicine to pursue a Ph.D. in the Cellular and Molecular Medicine (CMM) graduate program. Her dissertation, titled "A comprehensive analysis of infectious agents and prostate-infiltrating lymphocyte populations in men with prostate cancer," was completed in the Department of Urology under the mentorship of William B. Isaacs, Ph.D. Dr. Sfanos also completed a postdoctoral fellowship at Johns Hopkins in the laboratory of Angelo M. De Marzo, M.D., Ph.D. before joining the faculty in the Department of Pathology in January of 2011 in the Division of Kidney-Urologic Pathology. Dr. Sfanos' primary research interests continue to focus on the role of infectious agents and chronic inflammation in prostate cancer etiology.



Blast from the Past



Electron Microscopy Lab

1964

Front row: left to right: Dr. Gonzales-Licea, Dr. Takano, Dr. Boitnott

Middle row: Marjorie Guererro, Gertrude Brown

Back row: left to right: Dr. Yardley, Mr. Friedman (EM Tech)



2013 USCAP to be held in Baltimore

Mark your calendars! The 2013 USCAP meetings will be held here in Baltimore! The Department is planning a number of events, including a special dinner at the main hospital campus for our alumni on Sunday, March 3, 2013. The popular historian Ric Cottom is scheduled to join us at this dinner and plans an entertaining talk on William Welch. Please join us for this special night!

New Fellowship Funds

We are pleased to announce that the department has established eleven new funds to support the training of our fellows.

- The John Boitnott Liver and Gastrointestinal Pathology Fund
- Michael J. Borowitz Hematopathology Fund
- Peter C. Burger Neuropathology Fund
- Daniel W. Chan Clinical Chemistry Fund
- Patricia Charache Clinical Microbiology Fund
- Jonathan I. Epstein Genito-Urologic Fund
- Constance A. Griffin Molecular Pathology Fund
- Paul M. Ness Transfusion Medicine Fund
- Lorraine Parent Racusen Renal Pathology Fund
- Noel R. Rose Pathobiology Graduate Student Fund
- Dorothy Rosenthal M.D. Cytopathology Fund

These funds not only honor a number of our current and former division chiefs, but they also will help insure the long-term viability of our training programs. Please consider supporting one of these funds.

If you have any questions please contact Dr. Ralph Hruban (rhruban@jhmi.edu or 410-955-2163).

If you would like to donate to one of these funds on-line, please visit our secure server at: <https://jhweb.dev.jhu.edu/eforms/form.do?formId=8525>

We are enclosing a self-addressed return envelope to facilitate your contribution.

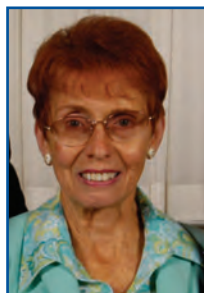
If you would like to use a separate envelope, please send your tax-deductible contributions payable to Johns Hopkins University to:

Attn: Kimberly Gill
Department of Pathology
Carnegie 437
The Johns Hopkins Hospital
600 North Wolfe Street
Baltimore, MD 21287-6417

Funding Our Future



Joseph C. Eggleston



Mabel Smith



William Welch



Gerald S. Spear



Grover Hutchins



Donald L. Price

In these hard economic times private giving is more important than ever. Our funds and fellowships honor some of our treasured faculty and staff, and, at the same time, provide critical support for the training of talented physicians and scientists. Please consider supporting the department.

The Joseph Eggleston Fund in Surgical Pathology

The Joseph Eggleston Fund in Surgical Pathology honors one of the true giants in the field of surgical pathology. Dr. Eggleston was not only a leading authority on the pathology of lung cancer, but he also educated a generation of outstanding surgical pathologists. This fund supports the clinical and/or research activities of an outstanding resident or junior faculty member in surgical pathology. This year's grantees are residents Drs. Ashley Cimino-Mathews and Gang Zheng.

The Yener S. Erozan Fellowship in Cytopathology

Yener Erozan continues to play an important role in the Division of Cytopathology as a mentor, teacher, and consultant. One way to express your appreciation for all that Yener has done for the Department and for the Division of Cytopathology over the years is to donate to this important fellowship.

The Robert H. Heptinstall Fellowship

Heppy is now retired, but comes in periodically to visit friends. Paralleling Heppy's emphasis on research excellence, the Robert H. Heptinstall Fellowship promotes research activities and clinical training of outstanding young pathologists pursuing careers in research.

The Grover M. Hutchins, M.D. Memorial Fund

The friends and family of Grover Hutchins have joined together to establish The Grover M. Hutchins, M.D. Memorial Fund. Grover spent 56 years at Johns Hopkins and during that time had a profound impact on our residency training program, as well as advancing the understanding of cardiovascular and pediatric diseases. The endowment honors Grover and will provide research support for young trainees and junior faculty in the Department of Pathology, helping them transition to their independent careers. Dr. Justin Bishop is the first recipient.

The Donald L. Price Research Fund

This endowment in neuropathology honors Don's many major contributions to neuroscience and to the Department.

The Mabel Smith Endowment for Resident Research & Education

Mabel is as busy as ever handling the academic affairs of the Department and providing words of wisdom to those who drop by her office for advice. The Mabel Smith Fund is used to support special courses, research projects, travel and other needs of our residents.

The Gerald S. Spear JHU-UCI Medical Student Pathology Fellowship

This program was established in 2005 to commemorate Dr. Spear's retirement. The Spear Fellowship provides a UC Irvine student with the opportunity to participate in a one month elective in the Department of Pathology at Johns Hopkins. The goal is to inspire respect for, and possibly a career in, pathology.

The William Welch Award

The William Welch Award is named for the preeminent pathologist who was one of the founding fathers of The Johns Hopkins Hospital and School of Medicine. It was established to acknowledge outstanding achievement in pathology by a second year medical student. The award is announced each year at the Residents Award Dinner. The 2011 Award was presented to Vivian Weiss.

The John H. Yardley Fellowship in Gastrointestinal Pathology

Dr. Yardley was one of the founders of the field of gastrointestinal pathology and a much loved teacher. Dr. Oliver McDonald is the Yardley Fellow for 2011-2012.



Dr. Heptinstall receives 2011 Lifetime Achievement Award from the Renal Pathology Society

The Renal Biopsy Service was developed by Dr. Robert Heptinstall, who is credited with creating the discipline of diagnostic renal pathology, wrote the first textbook in this field, and was recently honored with the aptly renamed “Robert H. Heptinstall’s Lifetime Achievement Award” by the Renal Pathology Society.



Dr. Heptinstall (left) receives the “Robert H. Heptinstall’s Lifetime Achievement Award” from the president of the Renal Pathology Society, Dr. Terry Cook.

Primary Faculty Changes – 2011-2012

New Faculty

Belchis, Deborah	Visiting Associate Professor	Surgical Pathology, Bayview
Le Thi, Quy Hoa (Anne)	Assistant Professor	GI/Liver Pathology
Peterson, Daniel	Assistant Professor	Immunopathology
Tatsas, Armanda (Amy)	Assistant Professor	Cytopathology
Guan, Hui	Instructor	Cytopathology
Liu, Jing (Emily)	Research Associate	Transfusion Medicine
Chen, Lily	Research Associate	Clinical Chemistry
Zhang, Bai	Research Associate	Clinical Chemistry
Arnold, Christina	Assistant	GI/Liver Pathology
Bagby, Christina	Assistant	Gynecological Pathology
Kuperman, Michael	Assistant	Surgical Pathology
Maniar, Kruti	Assistant	Gynecological Pathology
Matsukuma, Karen	Assistant	GI/Liver Pathology
Nasseri-Nik, Niloofar	Assistant	Gynecological Pathology
Norwood, Stephanie	Assistant	Surgical Pathology
Toll, Adam	Assistant	Surgical Pathology
Villa, Kathryn	Assistant	Surgical Pathology

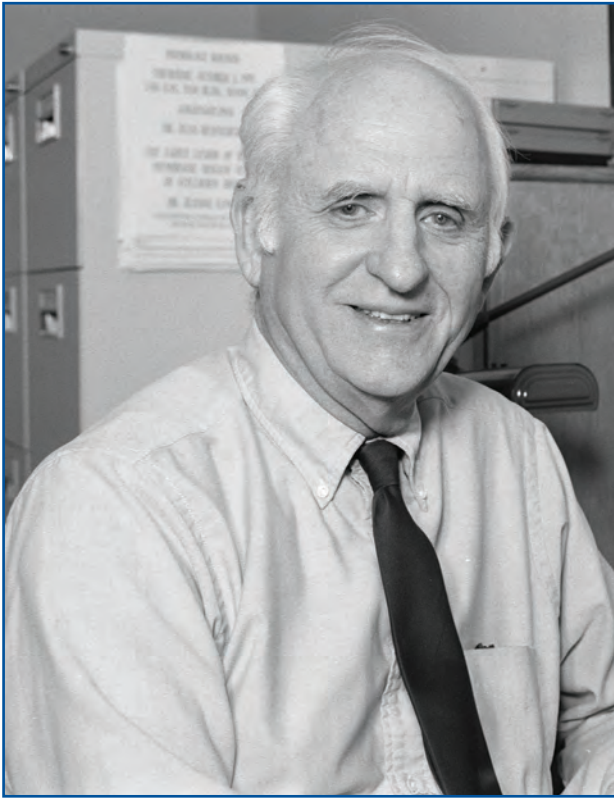
Departures

Bova, G. Steven	Assistant Professor	Finland
Li, Yan	Research Associate	Return to China
Borgen, Joel	Assistant	Lake McHenry Pathology Associates, Woodstock, IL
Borgen, Kristina	Assistant	Advocate Lutheran General Hospital, Park Ridge, IL
Chang, Alex	Assistant	Genitourinary Fellowship, The Johns Hopkins Hospital, Baltimore, MD
Gupta, Mamta	Assistant	Beth Israel Medical Center, Boston, MA
Maambo, Emily	Assistant	Medical Center Laboratory, Yakima, WA
Li, Fanghong (Rose)	Assistant	Not known

Promotions

Eberhart, Charles G.	Professor	Neuropathology
Iacobuzio-Donahue, Christine A.	Professor	GI/Liver Pathology
Torbenson, Michael S.	Professor	GI/Liver Pathology
Batista, Denise	Associate Professor	Molecular Genetics
Halushka, Marc	Associate Professor	Cardio-Pulmonary Pathology
Zhang, Hui	Associate Professor	Clinical Chemistry
Begum, Shahnaz	Assistant Professor	Surgical Pathology
Bishop, Justin A.	Assistant Professor	Surgical Pathology
Cornish, Toby C.	Assistant Professor	GI/Liver-Informatics
Duffield, Amy	Assistant Professor	Hematopathology
Meany-Li, Danni	Assistant Professor	Clinical Chemistry

In Memoriam



John Yardley
1926 - 2011



Constance A. Griffin
1951 - 2012

Welcome to the Graduate Training Program in Pathobiology 2011-2012 Incoming Students

Allison Hanaford

Allison Hanaford is from Orange County, California. She graduated in May 2011, with honors from California State University Fullerton with a BS in Biological Science and a minor in music. She enjoys classical music and plays the oboe and the English horn. She has conducted research at The Jackson Laboratory in Bar Harbor, Maine, and is interested in neuropathology.



on pathogen detection devices, cancer biomarkers investigation, and has explored her way to high content screening technology. Her primary research interests lie in the areas of translational clinical sciences. She believes that through the understanding of disease development and its mechanisms, we are moving closer to finding potential solutions as means of effective disease treatments, and ultimately contribute to better healthcare for mankind. She is looking forward to her studies in the Pathobiology Graduate Program, where the integration of fundamental sciences and clinical applications is closely intertwined. She visualizes herself as a bridge between her academic colleagues, clinicians and the commercial sectors. Outside of research, she likes to play music, "scribbles" and travel. Wan Yee is one of our Margaret Lee students.

Heidi Hempel

Heidi graduated from the University of Maryland College Park in May 2011, with a major in Cellular Biology and Molecular Genetics and a minor in Art History. Although she is interested in immunology, most of her research experience is in cancer. Heidi wants to take full advantage of the flexibility of the Pathobiology program at Johns Hopkins to fully explore her research interests. Her hobbies include painting, drawing, and costume design, as well as organizing and hosting social events.



Youngran Park

Youngran Park comes from South Korea and studied at Korea University where she graduated with a B.S. in Biotechnology in 2010. After graduation, she entered the National Cancer Center in Korea because of her belief that the spirit of science is to alleviate human suffering through research. Youngran believes that Pathobiology has a unique academic environment which offers students, researchers and clinicians a great foundation to perform ground breaking biomedical research. Her goal is to contribute to establishing a "Meme" in biomedical research that is transferable from generation to generation by setting up a foundation and encouraging more young people to study research. Youngran is one of our Margaret Lee students.



Rosie Jiang

Rosie was born in Stony Brook, New York and graduated from Duke University in May 2009, with a B.S. in Biology and concentration in Genetics. During her undergraduate years, Rosie was involved in Vanderbilt Medical Center's ASPET-sponsored Summer Undergraduate Research Fellowship Program and Duke University's Howard Hughes Vertically Integrated Partners Program. She spent the past couple of years working as a research assistant at Vanderbilt Medical Center developing a conditional eNOS knockout mouse and murine MRI and SPECT imaging methods. Rosie is interested in the genetics and molecular biology of cancer.



Corey Porter

Corey Porter was born in Ft. Benning, Georgia. Her father was in the Army, and so the family moved quite a bit. Corey mostly grew up in the Southeastern United States, but she also lived in Bolivia for a year. She completed her undergraduate education from the University of Alabama at Birmingham in May 2009, in Biology with a concentration in Molecular Biology. She has been working as a research technician for the last three years in cancer-based research, much of it with a strong relationship to clinical pathology. The past two years have been in Chicago at Northwestern University. She wants to gain the knowledge and experience necessary for a career in research science.



Wan Yee Leong

Wan Yee comes from Malaysia and has stayed in Singapore since the turn of the millennium. She received a M.Sc. from the National University of Singapore in 2004, and a B.Sc. from the University of Malaya in 2001. Trained in the background of Microbiology, she has worked



Welcome to the Graduate Training Program in Pathobiology 2011-2012 Incoming Students (continued)

Meng Su

Meng was born in Changchun, China and graduated from Peking University, Beijing, China in July 2009, with a B.S. in Biomedical Technology. She worked in the Jiang Gu lab at Peking University and his lab at Shantou University Medical College in China for two years as a research assistant, where she focused on cystic fibrosis and Immunoglobulin G, respectively. She also worked in the Dongming Cai lab at Mount Sinai School of Medicine in New York and focused on Alzheimer's Disease. Meng has published one paper as the first author and three papers as a co-author. She is interested in a better understanding of neurodegeneration and translational research.



Wan Jou Yang

Wan Rou graduated from University of Washington in 2007, with degrees in Neurobiology and Biochemistry. While in school she researched the biochemistry of neurodegenerative diseases, an interest she continued when she drove across the country to work at the NIH. While there, she developed a keen interest in the immunology of neurodegenerative diseases and started a Neuroimmunology journal club. As she finishes her second year of medical school at Hopkins she hopes to focus more on studying immune modulation. Outside of the lab she enjoys rock climbing, traveling, and video games.



Dr. Ralph Hruban – I Always Call Him Doctor

Dr. Hruban was handed a print of John Singer Sargent's painting of the Four Doctors on his first day of medical school at Johns Hopkins in 1981. Drs. Halsted, Kelly, Osler and Welch seemed distant historical figures with little or no connection to the incoming medical class. It wasn't until years later when Ralph was on the faculty and heard Dr. John Cameron tell the remarkable story of Dr. Halsted's life that these characters came alive. The dramatic moments, such as Dr. Halsted transfusing his own

blood into his sister's veins, his struggles with addiction, and, the impact Dr. Halsted had on modern medicine were fascinating. Above all, Dr. Halsted's ability to fight against terrible challenges was inspiring. Ralph's interest grew into an obsession.



Drs. John Cameron and Ralph Hruban at High Hampton (Dr. Halsted's summer home)

was not entirely satisfied because the screenplay was only loosely based on the facts of Dr. Halsted's life. In an effort to balance the fictional screenplay he decided to produce a nonfictional documentary.

Dr. Hruban therefore partnered with Alan Wu, son of Dr. T.C. Wu in the Division of Gynecologic Pathology, and Norman J. Barker in Pathology Photography and Graphics, to create a nonfictional "Ken Burns-style" documentary.

The team has already had two screenings of the movie — one at the 6th Annual Jane Wyatt Symposium at the High Hampton Inn, Dr. Halsted's summer home, in Cashiers, North Carolina on June 2, 2011, and the second at the 85th Annual Meeting of the Halsted Society in Baltimore on September 9, 2011. If your interest has been piqued, a Web site and Facebook page was created (<http://halstedthedocumentary.org/>) Keep an eye on your TV guide as WETA, the public broadcasting station in Washington, DC has agreed to broadcast Halsted in spring 2012!

Continued from page 2

The Johns Hopkins Pancreas Pathology Atlas: a new iPad app

23 didactic illustrations and 15 animations to support the instructional design of the app. Bona's thesis advisor was Corrine Sandone, M.A., and Cory also provided invaluable guidance to the project.

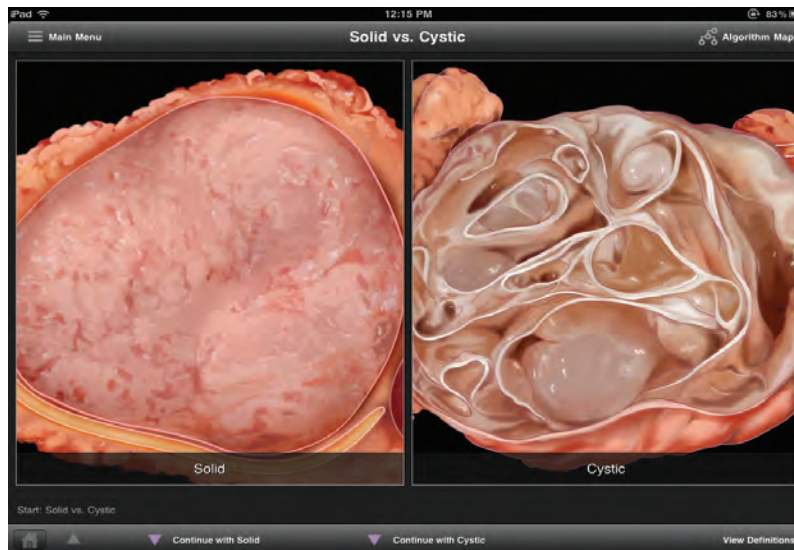
The quiz module provides 166 multiple-choice questions. The questions are linked to atlas images and cover important topics in pancreatic pathology ranging from straightforward histomorphologic diagnosis to cancer genetics. The quiz interface is designed to allow the learner to work at his or her own pace. It provides graphical feedback indicating the quiz-taker's performance and a mechanism for easily reviewing incorrectly answered questions.

The Johns Hopkins Pancreas Pathology Atlas demonstrates that tablet devices like the iPad are uniquely suited for delivering a rich, interactive educational experience. We believe that this app represents a significant leap

forward in pathology education. It is also yet another example of the value of close and active collaboration between pathologists and medical illustrators. As the nature of media continues to evolve, the Departments of Pathology and Art as Applied to Medicine will continue to explore novel uses of new and innovative visual technologies, ensuring that visual representation of medical and scientific information at Johns Hopkins Pathology remains on the cutting edge of technology.

Of note, the atlas module was designed to be reusable for additional disease entities. Any faculty wishing to explore creating their own app should contact Ralph Hruban.

The Atlas is available for free in the App Store. <http://itunes.apple.com/us/app/atlas-of-pancreas-pathology/id474845392?mt=8>



Awards/Recognition



The Society of NeuroOncology Lifetime Achievement Award

Peter Burger, M.D., Director of Surgical Neuropathology, received the Society of NeuroOncology Lifetime Achievement Award in Montreal, Canada at their annual meeting. The Lifetime Achievement Award is given to a meritorious individual who has made significant contributions in neuro-oncology over his/her career, either in clinical care and/or translational or basic research.

BioCommunications Association's (BCA) 2011 BioImages Awards

Norman J. Barker, M.A., M.S., RBP, FBCA, Director of Pathology Photography, received three Awards of Excellence in the BioCommunications Association's (BCA) 2011 BioImages competition. Norm's photo "Placenticerus meeki," won an Award of Excellence in the Still Media: Photomicrograph category; his photo, "Osteoporosis," won an Award of Excellence in the Still Media: Specimen category; and his poster, "Microbiology," won an Award of Excellence in the Graphics Media: Poster category. "Osteoporosis" also received two Merit Awards, the BCA Medical Education Award in the Still Media category, and the Medical Photography Award; and Norm's poster "Evergreen Museum & Library," received a Citation of Merit in the Graphics Media: Poster category. You can view Norm's award-winning photos in the BCA's 2011 BioImages gallery at <http://www.bca.org/gallery/bioimages2011awards.html>

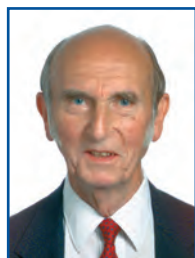


"Breakthrough of the Year" for 2011 by the journal Science

Susan Eshleman, M.D., Ph.D., Head of the The Network Laboratory for the HIV Prevention Trials Network (HPTN), and her team were part of a clinical trial, known as HPTN 052, which was recognized by the journal *Science* as a "Breakthrough of the Year" for 2011. Susan and the HPTN team helped demonstrate that early initiation of ARV therapy in people infected with HIV reduces transmission of the virus to their partners by 96 percent.

Professors' Award for Excellence in Teaching

Marc Halushka, M.D., Ph.D. received the Professors' Award for Excellence in Teaching at the Medical School's convocation on May 24, 2011. The Professors' Award for Excellence in Teaching was established in 1981, and each year honors members of the faculty whose teaching is judged to have a profound effect on students in the School of Medicine.



2011 Lifetime Achievement Award from the Renal Pathology Society

Robert Heptinstall, M.D. received the 2011 Lifetime Achievement Award from the Renal Pathology Society. In addition, the Society has aptly renamed the award the "Robert H. Heptinstall Lifetime Achievement Award." Enjoy the photos from the presentation on page 12 of Pathways.

2011 Ranice W. Crosby Distinguished Achievement Award

Ralph H. Hruban, M.D. received the 2011 Ranice W. Crosby Distinguished Achievement Award at the Medical School's convocation on May 24, 2011. Ralph received this award from the Department of Art as Applied to Medicine "for his investigative spirit to explore novel uses of new and innovative visual technologies to communicate medicine."



...On The Web

We've launched several new sites in the past year, including <http://halstedthedocumentary.org/> to support Ralph Hruban's documentary on Dr. William Stewart Halsted (see page 16).

Additionally, we are developing new, mobile-friendly versions of Case Conference Web sites and Pathology Atlases to support the teaching mission of the Pathology Department. These will be announced on the Pathology home page when they are ready.

Jim Doran and his team also supported the development of the Pancreas Pathology iPad app (see page 2), and are working to convert this to Web-based platform.



Follow the Pathology Department on Facebook, YouTube, our blog and the department's news page. <http://pathology.jhu.edu/>



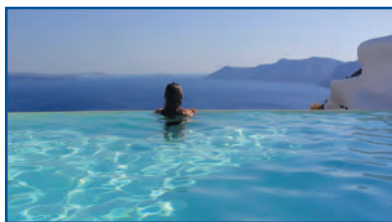
...In The Photography and Graphics Area

The Pathology Photography and Computer Graphics team of highly skilled designers can help you with presenting and outputting your scientific information for the upcoming USCAP meeting in Vancouver, BC. Our award-winning designers can help you with poster printing, top quality graphic design and custom photomicrography. They can help with everything from complete design from start to finish or design it yourself and have it printed on our high quality HP 60 inch printer. Our designers and photographers will make your posters and presentations stand out from the rest and carry on the tradition of excellence from Johns Hopkins Pathology.

On your way over to Path Photo (Pathology Building, Room 111) enjoy the current photography exhibit entitled "Travels" from Robert Kurman M.D., Director of Gynecologic Pathology. Most pathologists are very visual people and full professors have a very busy travel schedule. Combine both travel and photography in a number of diverse and beautiful locations and you have the inspiration for this colorful exhibit. Several faculty members in the past have exhibited their beautiful images in the hallway gallery.



*A few select images from
the current photography exhibit
entitled "Travels"
from Robert Kurman M.D.*



Calendar

March 18, 2012, 5:30 – 7:30 p.m.
United States and Canadian Academy of Pathology
Fellowship Fair
Convention Center, Ballroom D, Table 20
Vancouver, BC, Canada

March 19, 2012, 5:30 – 7:30 p.m.
United States and Canadian Academy of Pathology
Johns Hopkins Pathology Alumni Reception
Pan Pacific Vancouver Hotel, Pacific Rim 2
300-999 Canada Place
Vancouver, BC, Canada

April 26, 2012, Noon – 4:00 p.m.
Pathology Young Investigators' Day
Turner Concourse
The Johns Hopkins University School of Medicine
Baltimore, Maryland

May 11, 2012
Pathology Awards Dinner
The Belvedere
Baltimore, Maryland

March 2 - 8, 2013
United States and Canadian Academy of Pathology
Baltimore Convention Center
Baltimore, Maryland

Mark your calendars! The 2013 USCAP meetings will be held here in Baltimore! The Department is planning a number of events, including a special dinner at the main hospital campus for our alumni on Sunday, March 3, 2013. The popular historian Ric Cottom is scheduled to join us at this dinner and plans an entertaining talk on William Welch. Please join us for this special night!

Congratulations to the 13th Annual Pathology Young Investigators' Day Awardees - April 6, 2011

The Department of Pathology again enjoyed an excellent turnout for this year's Young Investigators' Day.

Basic: Samarjit Das, Ph.D.

Clinical: Ashley Cimino-Mathews, M.D.

Translational: Sonal Gupta, Ph.D.

For Excellence in Basic Research

Timothy Babatz, B.S.
Jobert G. Barin, Ph.D.
Yen-Ling Chiu, M.D.
Jewel A. Daniel, Ph.D.
Samarjit Das, Ph.D.
Bin Guan, Ph.D.
AeRyon Kim, Ph.D.
Cheryl M. Koh, B.S.
Mark J. Kohr, Ph.D.
Yuri Poluektov, B.S.
Alexander Stoeck, Ph.D.
Chapman M. Wright, Ph.D.
Chao-Yi Wu, M.D.
Kai Lee Yap, B.Sc.

For Excellence in Clinical Research

Ashley Cimino-Mathews, M.D.
Mamta Gupta, M.D.
Delicia Munfus-McCray, Ph.D.

For Excellence in Translational Research

Katie K. Brennan, Ph.D.
Sonal Gupta, Ph.D.
Christopher M. Heaphy, Ph.D.
Tory Johnson, M.S.
Elisabetta Kuhn, M.D.
Kihyuck Kwak
Brent A. Orr, M.D., Ph.D.

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