Path Ways

The Johns Hopkins Medical Institutions | Department of Pathology | Volume 5, Issue 2, Fall, 2001

Director's Corner

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

Since the founding of the Johns Hopkins Hospital in 1889 and the Medical School four years later, the history and accomplishments of the Department of Pathology have been impressive. The first Professor and Director of Pathology was Dr. William Welch whose influence on the School of Medicine, the School of Hygiene, and the Hospital remains unsurpassed. The tradition of conducting outstanding research, teaching, and service started by Dr. Welch have had tremendous national and international impact on the diagnosis, treatment, and understanding of the pathogenesis of a number of diseases. This tradition has been maintained and strengthened by successive Directors: William G. MacCallum 1917-1944, Arnold R. Rich (1947-1958), Ivan L. Bennett, Jr (1958-1969), Robert H. Heptinstall (1969-1988), John H. Yardley (1988-1992), and Fred Sanfilippo (1993-2000). I am greatly honored and privileged to have been appointed the 8th Baxley Professor and Director of Pathology as of

Dr. J. Brooks Jackson

Continued on page 2

Inside...

Division in Highlight: The New "Non" Core Laboratory

In the fall of 2000 the Directors of the Core Laboratory and the Pathology Administrators, in an effort to respond to the limited staff availability and the institutional financial pressures, identified similarities between the Core Laboratory and the outreach laboratories such as Express Testing and Green Spring Station. These synergies offered an opportunity to create an integrated Core Laboratory that includes outreach services.

The first step was to create a management structure under a single Assistant Administrator. Al Valentine was selected to oversee the newly structured operation. Working with a team of supervisors, they developed an organizational strategy that grouped the new operational division into three areas: Pre/Post Analytical, Analytical, and Technical Support.

Headed by Mike Huppenthal the Pre/Post Analytical area encompasses Inpatient Phlebotomy, Internal and External Transportation (Lois Tissue), Specimen Processing (Denise Gingher), Customer Service (Bill Hartlove), Green Spring Station, White Marsh (Ellen Dumer), Johns Hopkins Community Physicians, Johns Hopkins Home Care, Baltimore Medical System, and Kennedy Krieger (LaVerne Farrar).

Greg Gerhardt (Chemistry), Mary Jo Bill (Special Chemistry), Inge Hobbs (Hematology), Lydia Nelson (Evening Shift), and Scott Ratchford (Overnight Shift) supervise the Analytic areas. This team oversees the clinical operations in Core Chemistry, Core Hematology, Special Chemistry, Toxicology, Emergency Room Lab, Critical Care Lab, Weinberg Lab, Special Coagulation, Flow Cytometry, and Molecular Hematology.

The Technical Support group monitors and assists with functions such as Chemistry QC, Hematology QC, Divisional QA, Education, Staff Development, Safety, and Near Patient Testing (Waived and Non-waived). Sandy Humbertson oversees a staff of specialists who assist with these responsibilities.

The Core Laboratory is a multi-discipline laboratory located in several areas with many of the laboratories open 24/7. Leadership realized that there was no one major project which could bring efficiencies and stress relief to its staff. Therefore, the management team focused on individual opportunities in each of the areas.

Twenty-four hour phlebotomy was transferred from the Department of Nursing to Pathology in December 2000. The current service as viewed by Nursing and Physicians has improved greatly. Phlebotomy supervisors are working with nurse managers to identify patterns of redundant ordering. A program is currently in place to facilitate licensure of the

Continued on page 3

Director's Corner

Continued from page 1

September 1, 2001. It is especially gratifying to know that I have such strong support from so many of the faculty and staff whom I admire and respect within and outside the Department. I thank you for your support.

My goal over the next 5 years is to continue this tradition of excellence and expand the scope of our research, teaching, and service activities within Johns Hopkins Medicine at home and abroad. In terms of service, we must be able to support the expanding patient care activities of Johns Hopkins Medicine locally and internationally. Priorities will include the integration of pathology services across Johns Hopkins Medicine and the expansion of the outside diagnostic consult service, our test menu (with an emphasis on the continued development of molecular diagnostic assays), and the number of laboratories locally and abroad. As in the past, it will be important to collaborate and support clinical programs in order to provide the best in diagnostic services that our clinicians and patients have come to expect from our institution. This increase in the scope and volume of activities will require more space for faculty and staff. The Hospital has committed substantial space in the planned Critical Care Tower that will allow the consolidation and expansion of pathology services currently in Carnegie, Meyer basement, and Pathology. In the meantime, expansion of pathology services will continue at our Hopkins projects located in Kuala Lumpur, Uganda, China, and no doubt several new international sites.

Education priorities will include the expansion of our web based educational programs, CME courses, pathobiology graduate student program, and our residency and fellowship programs. I am pleased to report that the Hospital has agreed to fund two more resident positions starting next year. A major initiative will be the submission of new training grant proposals for graduate students, fellows, and allied health students.

With the substantial increase in NIH and other sources of funding, it will be essential that we take advantage of the funding opportunities to strengthen our existing research programs and invest in new areas that complement and support institutional initiatives such as the breast cancer program to name just one. Dean Miller shares this view and has agreed to initially fund new faculty positions and allocate up to 20,000 sq ft of additional research space to Pathology over a 5 year period. Two thirds of this new space will be available to Pathology in 2003. In the meantime, space will contin-

Continued on page 3

Sanfilippo Portrait

Hopkins is a place where the past is important. And in boardrooms, lecture halls and administrative offices throughout the campus, the past stares down at us in the form of portraits of our leaders of earlier eras. With the departure or retirement of each director, departments traditionally commission a portrait to add to the Hopkins collection. This year, we commemorated the tenure of Dr. Fred Sanfilippo with such a portrait, so that it joins those of previous Baxley Professors and Directors of Pathology dating back to William Welch.

Dr. Sanfilippo's portrait was painted by Peter Egeli, a native of Southern Maryland, and a renowned painter of portraits, landscapes, and marine subjects. He has had the opportunity to paint portraits of notable individuals from all sectors of industry, government and academia. He has a particular gift for making his subjects reveal themselves to him so he can capture their essence in a lifelike portrait. He has had nearly two dozen portraits commissioned by Johns Hopkins, including those of William Richardson, Daniel Nathans, Morris Offit, Harvey Meyerhoff, Patrick Walsh and Donald Coffey.

left to right, Janet Sanfilippo, Dr. Fred Sanfilippo, and Dr. Michael Borowitz

The portrait was officially unveiled on June 8, at the biennial meeting of the Hopkins Medical Alumni. The unveiling ceremony was presided over by Dr. William Brody, President of Johns Hopkins University, and also featured the presentation of portraits of Drs. Edward Benz of Medicine, Charles Cummings of Otolaryngology, Daniel Drachman of Neurology, Donnell Long of Neurosurgery, Paul McHugh of Psychiatry, and Edward Miller of Anesthesiology. The unveiling of each portrait was preceded by a short presentation by a faculty colleague describing the honoree's career at Hopkins; in Dr. Jackson's absence I had the honor of making this presentation for Dr. Sanfilippo. Frankly, I found the task of recounting Fred's numerous accomplishments for the department an easy and pleasurable one. Dr. Sanfilippo and his wife Janet were able to make the trip from Columbus for the unveiling, and I know both were thrilled with Mr. Egeli's work, and honored by the ceremony. It was the consensus of everyone I spoke with that Dr. Sanfilippo's was the best portrait there (of course everyone I spoke with was from pathology).

Although the painting was officially unveiled at the biennial, many received a sneak preview of the painting when it was presented to the Department at the annual resident and fellow awards dinner on June 1st. For those who haven't yet had the opportunity to see it, it will be displayed prominently in the administrative offices in Carnegie Bldg. 417. Come by and have a look and see what a great job Mr. Egeli did capturing Dr. Sanfilippo for posterity.

Michael J. Borowitz, M.D., Ph.D.

Director's Corner

Continued from page 2

ue to be tight so faculty will need to plan new initiatives carefully when it comes to space requirements for additional equipment, staff, storage, and bench space.

The success of these ambitious initiatives will mostly depend on our faculty and staff. Making the discovery and dissemination of new knowledge a priority of our academic efforts has been what has kept Johns Hopkins at the medical forefront. Applying this newly found knowledge to diagnostic and treatment advances in patient care is one of the major reasons we continue to be ranked the number one hospital in the United States. It is essential that each of our faculty be engaged in each of these activities to maximize the productivity of these efforts. Hospital and University staff will be equally important in the implementation and continued success in our ability to conduct research and provide outstanding pathology services for patient care. ■

Combined Johns Hopkins Continuing Medical Education Course in Gynecology and Gastrointestinal Pathology

Are you looking for intensive education in two areas that pathologists encounter on a daily basis? Are you in a busy group that makes slipping away for mid-week CME venues difficult? Johns Hopkins might have the right continuing education opportunity for you!

From November 2-5, 2001, the Divisions of Gynecologic Pathology and Gastrointestinal Pathology teamed together to offer four days of CME from Friday morning through Monday afternoon at the Renaissance Harborplace Hotel in Downtown Baltimore. Drs. Robert Kurman and Brigitte Ronnett directed the Gynecologic component of the course and Drs. Elizabeth Montgomery and Susan Abraham the gastrointestinal segment. The first two days built on an existing popular course devoted to gynecologic pathology and covered a wide range of topics concerning diseases of the ovary, cervix, vulva, uterus, and gestational trophoblastic disease. Hopkins faculty included Drs. Kurman, Ronnett, Pizer, and Perlman. Guest speakers included Drs. Jeffrey Seidman from Washington Hospital Center and Robert H Young from Massachusetts General Hospital. The two final days were a new Johns Hopkins offering devoted to gastrointestinal pathology covering esophageal, gastric, pancreaticobiliary, liver, and colonic diseases. Dr. Borowitz from the division of Hematopathology discussed gastrointestinal lymphomas and Dr. Thomas Hendrix from the Gastroenterology Service was also featured. Drs. Abraham, Argani, Bhagavan, Eshleman, Hruban, Iacobuzio-Donahue, Maitra, Montgomery, Torbenson, Wilentz, and Yardley from the Division of Gastointestinal Pathology contributed to the program. An exciting set of outside speakers included Drs. Joel Greenson from the University of Michigan, Zachary Goodman from the Armed Forces Institute of Pathology, and Cyril Fisher from the Royal Marsden Hospital in London.

Mark your calendars for next year - combined Gynecology and Gastrointestinal Pathology CME Course will be held November 8-11, 2002. ■

The New "Non" Core Laboratory

Continued from page 1

phlebotomy staff. Later this year the entire staff will participate in Customer Service Training. The outcome of the efforts will be monitored on the Hospital's ongoing Patient Satisfaction Survey.

With 80% of the hospital's 5,000 daily transactions originating or ending in one of the Core Laboratory areas, the daily performance of the pneumatic tube system has a dramatic impact on Core Laboratory workflow and turnaround times. The Processing Area monitors pneumatic tube performance on an hourly basis. The short term feedback has been used to make minor adjustments in the system. Additionally, long-term volume projections have been submitted to restructure and fix major bottlenecks.

Currently, Specimen Processing handles up to 500 samples per hour manually. After reviewing several options, management selected the Tecan FE 500 (see article page 6). Later this Fall the Tecan will arrive introducing automation to specimen processing. The outcome of this project is to normalize the turnaround times of sample handling and improve the accuracy of specimen aliquoting.

Customer Service will continue to expand its role internally. Customer Service is assisting Specimen Processing with communication, sample add-on's, and urgent call backs. The Tecan will also have a positive impact in Customer Service by lending automation to the current manual specimen processing system.

One of the earliest areas to be evaluated was JHOC's Express Testing Laboratory. Building on the successes in the Department's Outreach Program, chemistry testing was transferred from Express Testing to the Core Laboratory in April. After four months of smooth operations, Hematology and Urinalysis were transferred to the Weinberg and Core Laboratory respectively. This operational change has had limited impact to the Department's customers, but a net savings of 5.0 FTE's (through attrition). Express Testing Phlebotomy remains in place under JHOC Administration serving up to 400 patients each day.

Main Chemistry has had one of the largest workload increases (+25%) this year without any increase in staff. Under the close watch of Jane Tolentino, turnaround times and result integrity have been maintained. Other system changes such as consolidating ammonia's on the multichannel analyzers and evaluating synergies between osmolalities and urinalysis are planned for this fall.

In Hematology, the major focus was to open up the area and allow for better sample flow in Coagulation and Urinalysis. With the transfer of over a 100 urines per day from JHOC, work in urinalysis is currently overwhelming. Relief is on the way with the Bayer Atlas urinalysis analyzer planned to be implemented by mid November. After considerable review Dr. Kickler and Dana Anderson hope to develop an algorithm to reduce the number of urine microscopics performed by 50%.

Special Chemistry will also be implementing changes in the near term. On November 1st, acid phosphatase was consolidated on the TOSOH. The staff is also considering expanding immunoassay testing to 12 hours each day. This would normally provide next day results including Thyroid Function tests to physicians ordering multidisciplinary tests. Longer term, Dr. Chan and Dr. Sokoll are evaluating the direction of immunoassay testing. Every oppor-

Continued on page 8

Department of Pathology New Pathobiology Graduate Students, 2001-2002

Onikepe Adegbola, M.B.B.S.

Onikepe is originally from Nigeria. She received her M.B.B.S. from the College of Medicine, University of Lagos, in Nigeria in 1995. After completion of her medical degree, Onikepe did a one-year rotating internship in Medicine, Pediatrics, Surgery, Obstetrics and Gynecology at the EKO Hospital in Lagos, Nigeria. The following year she became a Visiting Physician in the Department of Hematology at Albert Einstein College of Medicine in New York. In 1998, she began a residency in Pathology at Columbia University College of Physicians and Surgeons in New York in order to develop a solid foundation for the study of disease. Onikepe just recently completed a year in the laboratory of Nina Agabian at UCSF, where she worked on Candida genetics, specifically a novel gene family postulated to have a role in Candida pathogenesis. As a student in the Pathobiology Program, Onikepe hopes to pursue her ultimate goal of becoming an independent investigator with her own laboratory working on the pathogenesis of disease.

Stina M. Fangmark

Stina is originally from Sweden. She received her B.A. degree in Biology/Philosophy from the College of Notre Dame of MD in May of 2001 where she graduated Summa Cum Laude. It was during her senior year of the International Baccalaureate that she chose to research the hereditary disease FAP (Familial Amyloidotic Polyneuropathy Type1) as her extended essay. Her passion for research grew as she became more aware of the tools available to help individuals suffering from this disease through research. After completion of her essay, she was asked by a Swedish support organization of families of FAP patients to have her review article "Suggested Causes of Familial Amyloidotic Polyneuropathy Type 1, and Liver Transplantation as a Plausible Method of Therapy" appear on their web page. Stina hopes to be able to continue research in the field of disease mechanisms, especially focusing on diseases of late and unknown onset.

Craig N. Morrell, D.V.M.

Craig is originally from Ontario, Canada. He received his undergraduate degree in Biology from Brown University in 1995. Thereafter, he earned a D.V.M. from Tufts University, School of Veterinary Medicine in 2000. While an undergraduate student at Brown, Craig co-authored two publications in highly regarded scientific journals including *Nature*. This productive research led him to pursue postdoctoral training in Comparative Pathology at Johns Hopkins, to further his understanding of the pathophysiology of disease. Craig has chosen to continue his studies in the Pathobiology Program to achieve his goal of gaining a great appreciation of the morphologic aspects of various human and animal diseases.

Colleen R. Mulvey

Colleen was born in Atlanta, Florida. She received her B.S. in Biochemistry from Florida State University in April of 2001. Colleen was a part-time Research Laboratory Technician at the National High Magnetic Field Laboratory in Tallahassee from August of 1999 through April of 2001. While at the National High Magnetic Lab, she was selected to do research under an REU-NSF training grant. The focus of the research was the physiological process of muscle contraction. During this time, she also wrote an honors thesis on the "Orientational Changes of ELC in Skeletal Muscle Fibers". Colleen has chosen the Pathobiology Program to continue to develop her research skills in the study of infectious disease in humans.

Eric B. Kuchner, M. H. S.

Eric is originally from Montreal, Canada. He received a B.A. degree in Political Science, with a minor in Trumpet Performance Studies, from Johns Hopkins University in May of 1998. In May of 2001, he received a M.H.S. from the School of Hygiene and Public Health of Johns Hopkins University. While completing his Masters Degree, Eric worked in the lab of John Laterra, M.D., Ph.D. at the Kennedy Krieger Institute in the Department of Neurology. There he played a key role in designing and cloning novel chimeric U1/ribozymes to inhibit PTEN gene expression in human glioblastoma cell lines. Eric is pursuing a Ph.D. in Pathobiology so that he will be equipped to help fight neurological diseases.

Bruce K. Huang

Bruce was born in Washington, D.C. He received his B.A. in May of 1999 from The Johns Hopkins University where he graduated with general and departmental honors. Bruce is currently working in the lab of Gary Pasternack where he developed a phage-based genetic library of PC3 prostate cancer cell line for use in yeast two-hybrid system assay to elucidate proteins interacting with pp32 tumor suppressor protein. He is also aiding in the investigation of tumor-reducing potential of pp32 when expressed in tumors derived from prostate and breast cancer cell lines using athymic murine model. Bruce is committed to a career in biomedical research. He has developed a keen interest in the applications of molecular biology and genetic engineering towards the treatment of human diseases and he feels that the study of Pathobiology will better equip him for a career in this field.

The Tecan is Coming! The Tecan is Coming!

The Core Laboratory will soon introduce laboratory automation into the specimen processing area. Automated instrumentation has been in the Core Laboratory Chemistry and Hematology sections for years. The installation of a Tecan Genesis FE500 is the first step toward introducing automation into the specimen processing area. If everything proceeds as planned, the instrument should be operational before the close of the calendar year.

The instrument has an expanded throughput of 500 tubes per hour. Individual barcoded vacutainer tubes are loaded into specimen racks and placed on the instrument entry tray. The instrument handles one specimen at a time and performs the function of sorting, centrifugation, decapping, secondary barcode label printing, aliquot labeling, aliquot pipeting, and racking into actual instrument carriers for the Hitachi, Sysmex, BCS, and the TOSOH instruments. The instrument will be bi-directionally interfaced to the Pathology Data System. Each specimen will be individually queried to determine potential processing, aliquoting, and racking status.

The instrument will work in parallel with PDS event queue software. Each specimen will be updated with the date and time that the specimen was read at the Tecan entry point and again when the specimen is racked into the discharge platform. The instrument itself runs on a windows based PC application and uses intuitive software and built in intelligence to provide total system management. Each step of a specimen's automation process is graphically displayed on screen, providing the operator with real-time feedback on every function. The instrument requires minimal maintenance and virtually eliminates the risk of manual sample aliquoting errors.

This is hopefully the first step toward future plans to introduce Total Laboratory Automation (TLA) into the Core Laboratory. This first phase instrument will establish the groundwork for future systems with expanded capabilities and direct links to the laboratory analytical systems. The introduction of this system will create a wave of change in the way we handle and process all of our patient specimens both on campus and at our outreach facilities. The next few months should be both an exciting and challenging period in the pre-analytical area of the Core Laboratory. ■

Congratulations to 3rd Annual Pathology Young Investigators' Day Awardees

For Excellence in Basic Research
- Marina G. Afanasyeva, M.D.
- Wen-Fang Cheng, M.D.
- Chih-Ling Chou
- David Elliott
- Ziya Kaya, M.D.
- Laura K. Richman, D.V.M.
- Anne K. Vehmas, M.D.

For Excellence in Clinical Research
- Elizabeth A. Allen, M.D.
- Theresa T-Y Chan, M.D.
- Magdalena B. Czader, M.D., Ph.D.
- Denis M. McCarthy, M.D.
- Dwight H. Oliver, M.D.
- Anil V. Parwani, M.D.
- Monica Srodon, M.D.
- David M. Steinberg, M.D.
- Warren S. Tanz, M.D.
- Michael S. Torbenson, M.D.
- Keith E. Volmar, M.D.

DOROTHY REED MENDENHALL (1874-1964) JHU SOM CLASS OF 1900

Medical students peer into their microscopes to see a pair of owl eyes staring back at them and excitedly realize they have identified the Reed-Sternberg cell nucleus characterizing Hodgkin's disease. Dorothy Reed Mendenhall discovered this cell in 1902 and provided some of the earliest and most detailed descriptions of Hodgkin's disease. Though she encountered many challenges as a woman in medicine, she successfully combined marriage and a family life with a career, a feat that continues to challenge female physicians a century later. Unable to find suitable positions in Pathology because of her gender, Reed spent the majority of her career in pediatrics and made significant contributions to the field of maternal and child health. (1)

Born in 1874, into a mid-western manufacturing family of Columbus, Ohio, Dorothy Reed was the youngest of two daughters. She was educated at home until the age of 13 and eventually matriculated to Smith College in 1891. During a second year biology class taught by Professor Harris Wilder she realized her potential as a physician. At the conclusion of one of his lectures, she recalls thinking, "This is it, this makes sense-this is what I have been waiting for all these years." Her family's response to her subsequent decision to attend medical school was less than enthusiastic. Her mother was "upset" and other family members were "aghast." One relative even wrote to Dorothy's mother and stated that Dorothy was no longer welcome in New York and implied that her career choice would interfere with social relationships. Nonetheless, Dorothy entered Johns Hopkins in 1896 and her relatives referred to her during this time as being "South for the winter."

From her first days at Johns Hopkins, Reed

Continued on page 10

Dorothy Reed Mendenhall (1874-1964)

FUNDING OUR FUTURE

With your wonderful and generous support, we have made significant progress in our campaigns to honor Drs. Yardley, Eggleston, Erozan, and Heptinstall through the creation of named funds and fellowships that support the careers of young pathologists. Please consider supporting one or more Fellowships again this year.

The Joseph C. Eggleston Fund in Surgical Pathology

The Joseph C. Eggleston Fund in Surgical Pathology honors Joseph C. Eggleston, M.D., '62, former Director of Surgical Pathology and Professor of Pathology. Dr. Eggleston touched many of our lives with his dedication to excellence in Surgical Pathology and his outstanding teaching. The income from this endowed fund will be allocated each year to a surgical pathology resident or junior faculty member in the Division of Surgical Pathology for projects that support their career development in surgical pathology. We are pleased to announce that Dr. Christine Iacobuzio-Donahue is the first recipient of an award from the Joseph C. Eggleston Fund. Dr. Iacobuzio-Donahue received the award for her work developing new markers of pancreatic cancer.

Joseph C. Eggleston

The Yener S. Erozan Fellowship in Cytopathology

The Yener S. Erozan Fellowship in Cytopathology pathology honors Yener S. Erozan, M.D., Director of Emeritus of the Cytopathology Institute and past President of the American Society of Cytopathology. Dr. Erozan is a much loved teacher and diagnostician who continues to have a wonderful influence on the Division of Cytopathology and on the Department. Income generated from this endowment will be allocated to a fellow in Cytopathology to support the development of their career.

The Robert H. Heptinstall Fellowship

The Robert H. Heptinstall Fellowship honors Robert H. Heptinstall, M.D., former Baxley Professor and Director of Pathology. Dr. Heptinstall is well known to all of us for his text book, his scientific accomplishments and for his wonderful personality - his impatience with pretension, his wit and humor, and his vivid storytelling. The Robert H. Heptinstall Fellowship will promote research activities and clinical training of outstanding young pathologists pursuing careers in research.

The John H. Yardley Fellowship in Gastrointestinal Pathology

Thanks to your generous support, we are pleased to announce that The John H. Yardley Fellowship in Gastrointestinal Pathology is now fully endowed! As of October 16, 2001, over $850,000 has been raised or pledged. This Fellowship will promote the research activities and/or clinical training of promising pathologists pursuing advanced training in the study of gastrointestinal disease in the Department.

Dr. Maitra and Dr. Yardley

The recipient of the John H. Yardley Fellowship for the Academic Year 2001-2002 is Dr. Anirban Maitra. Dr. Maitra received his residency training at the University of Texas Southwestern. Dr. Maitra's research, under the mentorship of Drs. Aravinda Chakravarti and Ralph Hruban, will focus on the application of single nucleotide polymorphism technology (HuSNP chip) to the study of familial pancreatic cancer. The John H. Yardley Fellowship is a wonderful example of how private giving can both honor our treasured faculty and, at the same time, support the careers of young pathologists.

We ask that you make supporting these funds and fellowships an annual event. What a wonderful way to honor these great physicians. We are enclosing a self-addressed return envelope to facilitate your contribution this year. Please contact Dr. Ralph Hruban at 410-955-2163 or rhruban@jhmi.edu for additional information. If you would like to use a separate envelope, you may send your tax-deductible contribution payable to The Johns Hopkins University to:

Attn: Mabel P. Smith,
Department of Pathology,
Johns Hopkins Hospital,
Carnegie 428,
600 North Wolfe Street,
Baltimore, MD 21287-6417

Thanks to all of you that have made this support a reality for our young pathologists. ■

Department of Pathology Incoming House Staff, 2001-2002

Ty Abel

Ty received his Bachelors degree in Psychology from Boise State University. He then attended the University of Arizona, where he earned his Masters and MD/PhD. He has considerable hospital work experience, including positions in phlebotomy and microbiology. His research focused on the effects of aging and gonadal steroid withdrawal on the human hypothalamus. He is originally from Boise, Idaho and enjoys skiing, fishing, and biking. He will be joining us on the accelerated AP/NP track.

Maryam Armin Farinola

Maryam was born in the New York City area. She briefly attended Michigan State University, before completing her B.S. in Biology at Wayne State University in Michigan. She continued at Wayne State for her M.D. degree and volunteered her time to Habitat for Humanity and health education for middle school students. Maryam's research activities have included work with MUC1 and MUC2 in the differentiation of oncocytoma and chromophobe renal cell carcinoma. In her spare time she enjoys scuba diving and foreign travel; she is fluent in Farsi. Maryam will pursue AP/CP training.

Jennifer Broussard

Jennifer is from Manhattan, Kansas. She earned her Bachelors degree in Biology from the University of Missouri-Columbia, and her M.D. degree from the University of Michigan. While in medical school, she spent time working in a medical clinic for the homeless. Jennifer also participated in the Howard Hughes Mentorship Program, during which she studied the effects of retinoic acid on the differentiation of intestinal goblet cells. She enjoys rock climbing, guitar, and ballet, and she has been both a ballet and ballroom dance instructor. Jennifer will be on the AP/CP track.

Dengfeng Cao

Dengfeng is originally from Hunan, China. He did his under-graduate work in Premedicine at Beijing University and earned his M.D. from Peking Union Medical College. During Medical school, he was involved in hypertension screening and blood donation campaigns. After moving to the United States in 1996, he earned a Ph.D. at the University at Pittsburgh. His work focused on investigating recognition specificity between proteins and DNA. His hobbies include travel, swimming, and fine cuisine. Dengfeng will also be training in AP/CP.

Marc Halushka

Marc is originally from Atlanta. He earned a B.S. in Biochemistry from Indiana University, before moving to Cleveland for his MD/PhD at Case Western Reserve University. His research involved a project that characterized single nucleotide polymorphisms in hypertension candidate genes using microarray technology. Marc will be training in AP only.

Gregory Hosler

Greg was born in Washington, D.C. He completed his B.S.E. at Princeton and his MD/PhD at Southwestern in Texas. His research activities have included studying minimal residual disease evaluation as a prognostic indicator in T-Cell Acute Lymphoblastic Leukemia. He was an instructor for the Dallas County Health Department and educated rural health care workers about laboratory diagnosis of sexually transmitted diseases. His interests include baseball, golf, and basketball, and he is fluent in Spanish. Greg is interested in AP/CP training.

Claudio Mosse

Claudio is originally from Santiago, Chile. At Cornell, he double-majored in Chemistry and Biology. He then earned an MD/PhD at the University at Virginia and studied mechanisms of MHC Class I antigen generation in melanoma. His extra-curricular experiences included Judo instruction and HIV education for middle school students. Claudio is trilingual, with proficiency in Spanish, English, and German. His hobbies include Judo, mountain biking, hiking, cooking, and fishing. Claudio is interested in AP/CP training.

Min Wang

Min is originally from Anhui, China where he earned his M.D. from Bengbu Medical College. He continued his education at Tianjin Medical University where he earned his M.S. while completing a residency in Ophthalmology, followed by his Ph.D. from Peking Union Medical College in Beijing, China. Min has completed an Ophthalmic Pathology Fellowship at the University of Illinois before continuing on as a Research Scientist at Celtrix Pharmaceuticals, as well as spending time as a Senior Research Associate at the University of Kentucky. His research activities include cDNA micro-array studies of Alzheimer's Disease, and neuronal cell damage and degeneration in the retina. Min will be joining us as a first year NP fellow from the University of Kentucky where he has completed a residency in Anatomic Pathology.

New Professorship in Urologic Pathology

On November 2, 2001, Dr. Jonathan Epstein was named the first Rose-Lee and Keith Reinhard Professor in Urologic Pathology. Dr. Epstein recently had the opportunity to meet Keith Reinhard along with Dr. Patrick Walsh in New York. Mr. Reinhard is chairman of the largest advertising agency network in the United States and the third largest agency network in the world with 206 offices in 99 countries. In the United States, his advertising company manages the McDonalds and Budweiser accounts. He is responsible for the McDonalds slogan, "You deserve a break today." Keith's background is on the creative side of the advertising business and his company has won 252 Cannes Lions awards for advertising, which is 68 more than its nearest competitor.

Dr. Jonathan Epstein

Keith Reinhard was treated by Dr. Walsh for prostate cancer and is actively involved in raising funds for the study of prostate cancer. In addition to providing funds for the Urologic Pathology Professorship, Keith and Rose Lee Reinhard provided an additional $1 Million gift to be placed in a fund for urological pathology research. This fund will generate approximately $40 to $50 thousand dollars per year, providing a continual source of funds to further the study of prostate cancer pathology.

This award recognizes the importance of clinically related research. The Department of Pathology is very grateful to Dr. Walsh. For a clinical department head to raise money for a Professorship for someone whose primary appointment is in another department is truly remarkable. Dr. Walsh also has the vision to recognize the importance of Pathology in the management of patients with prostate cancer. This Professorship in Urologic Pathology is the first of its kind in the world. ■

The New "Non" Core Laboratory

Continued from page 3

tunity to consolidate and systemize this testing will be considered.

The Weinberg Clinical Laboratories continue to be challenged as the acuity levels of patients in the operating rooms and the intensive care units continue to rise. Two hundred fifty additional Hematology profiles each day from JHOC have also added to the complexity of the laboratory. Special Coagulation is projecting four new assays by the end of the calendar year. Molecular Hematology will be switching to a more automated and specific HbA1C assay in December. Flow Cytometry volumes and test menu continue to expand each year.

The Emergency Room Laboratory now utilizes the same technologies for chemistry and hematology as the Main Laboratory. This transition reduced multiple inventories and eased cross training. Dr. Palmer-Toy and Greg Gerhardt are working on a Performance Improvement initiative with ER Nursing to reduce hemolysis rates to industry standard rates of less than 5%.

The Critical Care Laboratory has seen improvements in the communication of data to hospital result reporting systems. This summer, Mike Enlgestad working with nurse managers from each of the Intensive Care Units was able to convert from the dependency of phone/paper reporting to electronic communication. In addition to ensuring the accurate communica-

Continued on page 9

Primary Faculty Changes - 2001

New Faculty

Zhen Zhang	Associate Professor	Chemistry
John Ticehurst	Assistant Professor	Clinical Labs, Bayview
Charles Eberhart	Instructor	Neuropathology
David Berman	Instructor	Molecular Pathology
Theresa Chan	Instructor	Urologic Pathology
Anirban Maitra	Instructor	G.I./Liver Pathology
Kathleen Murphy	Instructor	Molecular Diagnostic Path.
Nicole Parrish	Instructor	Microbiology
Robb Wilentz	Instructor	G.I./Liver Pathology

Departures

Joel H. Saltz	Director and Chair	Dept. of Biomedical Infomatics
	Associate V.P. and CIO	Ohio State University Health Sciences
Raymond E. Lund	Associate Professor	Retired
Mark Sherman	Associate Professor	NCI, NIH
Laura Mamounas	Assistant Professor	NIH
T. T. Wu	Assistant Professor	M. D. Anderson Cancer Center
Tahsin Kurc	Instructor	Ohio State University
Umit Catalyurek	Research Associate	Ohio State University

Promotions

Brooks Jackson	Baxley Professor & Director	Department of Pathology
Lorraine C. Racusen	Professor	Kidney/Urologic Pathology
Jonathan Schneck	Professor	Immunology
Ie Ming Shih	Assistant Professor	Gyn Pathology
Gloria Su	Assistant Professor	G.I./Liver Pathology
Edward Weir	Assistant Professor	Hematopathology
Jining Bai	Instructor	Molecular Pathology
Abdel Hamad	Instructor	Immunology
Chien-Fu Hung	Instructor	Gyn Pathology

The New "Non" Core Laboratory

Continued from page 8

tion of data, it has provided a more sysmatic approach to blood gas and electrolyte testing.

In May, the GreenSpring laboratory transferred its chemistry testing to the JHH Core Laboratory. Green Spring will continue to perform hematology and reproductive endocrine tests onsite but in a new laboratory in Pavillion II sometime this winter. A pneumatic tube will connect the Oncology Suite with the laboratory facilitating 15 minute turnaround times on Hematology profiles.

Staffing, particularly on off shifts and weekends, continues to be a challenge across the Core Laboratory. Management is currently experimenting with creative shifts such as 12 hour days, weekend only programs, and targeted technical training programs to supplement experienced staff.

The Core Laboratory team has been so creative and enthused about changes that it has been a challenge to keep up with the evaluation and implemtation of these ideas. The Core Laboratory looks forward to the challenges presented by an ever changing healthcare system. ■

New Grants and Contracts Awarded to Pathology Faculty

FACULTY MEMBER	AWARD TYPE	AGENCY	DATES	TOTAL FUNDING
Bai, Jining	Inst. Grant	JHU/IRG	05/01/01-04/30/02	20,000
Bai, Jining	Grant	Dept. of Defense	05/15/01-06/14/04	490,499
Bai, Jining	Grant	Dept. of Defense	05/15/01-06/14/02	81,750
Barasoni, Laura	Grant	National Kidney Foundation	07/01/01-06/30/02	14,273
Berman, David	K08 Grant	NIH/NIDDK	07/01/01-06/30/06	630,450
Borowitz, Michael	R01 Grant	NIH/NCI	04/01/00-03/31/05	1,640,377
Bova, Steve	R01 Grant	NIH/NCI	07/01/01-06/30/06	1,201,725
Caturegli, Patrizio	Grant	American Thyroid Assoc.	07/01/01-06/30/02	25,000
Chan, Daniel	Contract	Roche, Diagnostics	01/02/01-01/01/02	90,000
Demarzo, Angelo	R01 Grant	NIH/NCI	06/01/01-04/30/04	869,744
Demarzo, Angelo	Grant	CapCure	06/01/01-05/31/02	68,880
Eberhart, Charles	Grant	Burroughs Wellcome Fund	09/01/01-08/31/06	508,000
Gabrielson, Edward	Grant	Dept. of Defense	07/15/01-07/14/04	490,499
Goggins, Michael	Grant	Lustgarten Foundation	01/01/01-12/31/02	250,000
Goggins, Michael	R03 Grant	NIH/NCI	07/01/01-06/30/03	163,500
Goggins, Michael	R03 Grant	NIH/NCI	07/01/01-06/30/03	163,500
Guay, Laura	Subcontract	Family Health International	02/16/01-08/31/01	82,615
Guay, Laura	Grant	Glaser Pediatric AIDS Fdtn.	03/01/01-02/28/03	286,974
Hatanpaa, Kimmo	Grant	American Fdtn. for Aging Research	07/01/01-06/30/02	25,000
Jackson, Brooks	Subcontract	Family Health International	02/16/01-08/31/01	448,797
Jackson, Brooks	Grant	Doris Duke Foundation	07/01/01-06/30/02	325,000
Jankowsky, Joanna	Grant	French Alzheimers Fdtn.	09/01/01-08/31/02	35,000
Jankowsky, Joanna	Grant	American Health Asst. Fdtn.	04/01/01-03/31/03	100,000
Merz, William	Contract	Merck & Co.	06/01/01-05/31/02	52,635
Montgomery, Elizabeth	Grant	Crohns & Colitis Foundation	06/01/01-04/30/02	15,955
Perlman, Elizabeth	U01 Grant	NIH/NCI	04/01/01-03/31/06	1,924,231
Racusen, Lorraine	R13 Grant	NIH/NIAID	04/21/01-04/20/02	2,000
Racusen, Lorraine	Grant	National Kidney Foundation	07/01/01-06/30/02	2,410
Roden, Richard	Grant	Stewart Trust	05/01/01-04/30/02	32,100
Roden, Richard	R21 Grant	NIH/NCI	07/01/01-06/30/03	327,000
Shih, Ie-Ming	Grant	Stewart Trust	05/01/01-04/30/02	32,100
Sokoll, Lori	Contract	Dade Behring	04/16/01-08/31/01	30,400
Sokoll, Lori	Contract	Eichrom Technologies	04/15/01-12/31/01	30,000
Su, Gloria	Inst. Grant	JHU/Bernstein Award	04/01/01-03/31/02	15,000
Su, Gloria	Grant	Lustgarten Foundation	01/01/01-12/31/02	250,000
Su, Gloria	R03 Grant	NIH/NCI	07/01/01-06/30/03	163,500
Troncoso, Juan	Contract	Neurologic, Inc.	11/01/00-10/31/03	185,000
Troncoso, Juan	Grant	Alzheimer's Association	09/01/01-08/31/04	240,000
Tuder, Rubin	R01 Grant	NIH/NHLBI	04/01/01-08/31/01	263,307
Tuder, Rubin	R01 Grant	NIH/NHLBI	04/01/01-08/31/04	1,046,503
Wong, Phil	Grant	American Health Asst. Fdtn.	04/01/01-03/31/03	200,000
Total				$12,823,724

MENDENHALL

Continued from page 5

experienced bias because of her gender. Dorothy Reed and a second female medical student, Florence Sabin, graduated fourth and second in the class, respectively. These rankings would normally guarantee both students a place on the house staff. However, Dr. Welch explained to Reed that two women medical interns was a "serious embarrassment" and suggested that she consider other specialties such as surgery or gynecology. Reed declined, and both graduates were given appointments in medicine. She faced yet another controversy, however, when the faculty questioned whether a white woman could serve on the black male ward. Dr. Reed spoke personally to Dr. Hurd, Superintendent of the Hospital, and insisted that she had proved herself having served as a medical student on the "colored wards, male and female, surgical and medical." She won over the faculty, and both students completed their medical internships. Reed then accepted a fellowship in pathology with Dr. Welch and wrote what would become her classic paper of Hodgkin's disease, based on the autopsies of eight cases. Publishing her findings in the *Johns Hopkins Hospital Reports* in 1902, she described a large binucleated cell characteristic of the disease, made a distinction between the disease and tuberculosis, and suggested that it was a chronic inflammatory illness due to an unknown pathologic agent. (2) Hodgkin's disease was later recognized as a malignant lymphoma, and only recently have investigators been able to isolate Reed-Sternberg cells and prove that they are clonal proliferations of B lymphocytes.

Following her fellowship, Dr. Reed pondered her prospects for a future in pathology stating, "Pathology was the work I had liked best in medicine, and the one I felt a real interest in following." Dr. Welch had offered her another year as a fellow but the stipend was inadequate, particularly since Reed was supporting herself and her mother. When she further inquired about hopes for faculty promotion, Dr. Welch explained that "No woman had ever held a teaching position in the school and that he knew there would be great opposition to it". Although he attempted to find Reed other pathology positions, she became discouraged by her inability to find work, gave up pathology, and in June 1902 she accepted a position as a resident in pediatrics at the New York Infirmary for Women and Children. Leaving Hopkins, she said "It was one of the saddest periods of my life…, Baltimore…. had always had a special significance for me. On that day I turned my back on all I wanted most and started to make a new life for myself". She continued her training as a resident at Babies Hospital in New York from 1903 to 1906.

At the age of 32, Reed married Charles E. Mendenhall, a physicist she had met in Baltimore. For the next nine years, she retired from medicine, devoting her time to her home and family. Her first child, Margaret, died shortly after birth of a cerebral hemorrhage due to poor obstetrical care, but Reed went on to have three more children. Shortly after the birth of her last child, Dorothy was offered a position as a lecturer in the Department of Home Economics at the University of Wisconsin, where her husband was Professor. At the University of Wisconsin, she performed epidemiologic studies on maternal and child health and also developed correspondence courses for new mothers.

In 1917 when war duty took her husband to Washington, D.C., she began working for the United States Children's Bureau to reduce infant and maternal mortality. Reed studied childbirth practices in Denmark and determined that the use of midwives and a decreased rate of surgical intervention were responsible for the country's low infant morality. She published a paper advocating greater use of midwives in 1929 that caused the revision of many delivery practices in the United States. She also extended her interest in child health to the war orphans of France, Belgium and England. Clearly, her interest in the field was a reflection on her own obstetrical experiences. She wrote, "I had considerable to do with putting the emphasis back on the way life began, on the care of the mother, and its great influence on life and health of the child, and of starting the work to improve conditions surrounding childbirth in our country"… "As I look back on these years and my interests (in delivery practices) the tragic death of my first child …was the dominant factor… All the writing and teaching on safe maternity I have thought of as a memorial to Margaret, my first child and only girl."

Reed continued to work in the field of maternal and child health until the age of 60 when her husband's illness forced her to give up her professional activities. Several of her children followed in her illustrious footsteps. Her first son became President of Smith College and her second son, graduated from Harvard Medical School in 1939 and studied a year of pathology at Johns Hopkins. Reflecting on her professional career, particularly after marriage, she wrote:

"When I look back over the last 60 years of my life, it seems as if my end was shaped slowly but surely…In the years of my family responsibility, research, obstetrical training and pediatrics, all of which enabled me to go back to work after my children were born and to make a worthwhile contribution to the city, the state, and the nation."

Dorothy Reed Mendenhall died in 1964 at the age of 89. Her contributions to medicine continue to be recognized decades after her Hopkins graduation. In a 1976 supplement to *The Johns Hopkins Medical Journal* entitled "Adventures in Medical Research" Dr. A. McGehee Harvey, former Physician-in-Chief of The Johns Hopkins Hospital, wrote:

"At a time when women were shunned by the medical profession, Dorothy Reed Mendenhall had the strength of character and intellectual power to successfully complete her medical training, to make a significant contribution to the body of knowledge about disease, and to materially aid other women by her contributions to child and maternal welfare."

Risa B. Mann, M.D.

References

1. Conway, Jill Ker, Editor . Written By Herself. Autobiographies of American Women : An Anthology p 171 - 199.Vintage Books A division of Random House, Inc. New York 1992
2. Mendenhall DR. Diary, Folder 25, Page 51. Typed manuscript. [1894-1900] Located at : Dorothy Reed Mendenhall Papers, Sophia Smith Collection, Smith College, Northampton, Massachusetts. In Three Women at Johns Hopkins: Private Perspectives on Medical Coeducation in the 1890s Joseph B. Shrager, MD. Annals of Internal Medicien. Vol 115; No. 7, 1 October 1991.
3. Reed, Dorothy M. On the pathological changes in Hodgkin's disease, with especial reference to its relation to tuberculosis. Johns Hopkins Hospital Reports 10:133-196, 1902.

Acknowledgement: Mr. Gerard Shorb, Research Associate, The Alan Chesney Medical Archives, and Rebecca Ashkenazy, M.D.

On the Web…

The last six months have brought exciting developments to the Department's Web presence. We are:

- beginning to incorporate streaming video and audio into our sites
- continuing to build upon our online professional education materials, and
- successfully using the web to increase private donations to support our research

We invite you to visit the web sites below and continue to visit the main department site (http://pathology.jhu.edu)

Web Team: (L-R) Standing: Jennifer Brumbaugh, Amanda Lietman Seated: Coreen Byam

Department members interested in developing new departmental web sites are invited to attend the Web Development Group open meetings held alternating Mondays at 10:00 A.M. (Carnegie489A). Please contact Coreen Byam at 410-614-3589 if you are interested in attending a meeting.

Streaming Video of Grand Rounds

http://pathology2.jhu.edu/department/grandrounds.cfm

Contributing Faculty: Bill Westra and Norman Barker

New Division / Laboratory Web Sites

Division of Gastrointestinal Pathology

http://pathology.jhu.edu/gipath

Contributing Faculty: Robb Wilentz, M.D.

The Cervical Cancer Research Lab of Dr. T.-C. Wu

http://pathology2.jhu.edu/tclab/

Developed by T.-C. Wu, M.D. and undergraduate students Richard Dzeng and Alan Wu

Professional Education Web Sites

Pancreas Cancer: From Genes to Treatment

http://pathology.jhu.edu/lustgarten

Streaming video by Pathology Photography & DoIt Interactive

On June 13 and 14, 2001, the Pathology Department hosted the 3rd annual meeting of the Lustgarten Foundation for Pancreatic Cancer Research. Watch and listen to the presentations through streaming video. Presenters include Johns Hopkins' own; Marty Abeloff, M.D., Ross Abrams, M.D., John Cameron, M.D., Ralph Hruban, M.D., Elizabeth Jaffee, M.D., Scott Kern, M.D., Steve Leach, M.D., and Burt Vogelstein, M.D.

Clinico-Pathologic Conference

http://oac.med.jhmi.edu/cpc/links.html

Coordinated by : Dr. Pedram Argani, Assistant Professor of Pathology; Dr. Charles Yeo, Professor of Surgery; Dr. Charles M. Weiner, Associate Professor of Pulmonary Medicine

Each month an expert clinician is presented with the clinical course, radiological findings, and relevant laboratory results for a particular patient. The clinical expert then puts a case together in a way that is educational to all members of the Hopkins medical community, from medical student to senior clinician. The clinical expert presents his or her discussion in Hurd Hall on the last Tuesday of every month, from 12 to 1 pm.

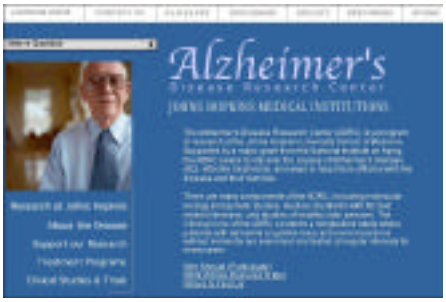
Two weeks before every case presentation, details of the case, including images and other material (when available), are posted on the CPC web site. After the CPC has occurred, we post the clinician's and the pathologist's presentations on the Web, as an ongoing medical education exercise.

Disease-Specific Web Sites

Alzheimer's Disease Research Center

http://www.alzresearch.org

Contributing Faculty : David Borchelt, Ph.D., Jason Brandt, Ph.D., Donald Price, M.D, Juan Troncoso, M.D.



http://www.alzresearch.org

The Alzheimer's Disease Research Center (ADRC) is a research program supported by a major grant from the National Institute on Aging. The ADRC web site provides information on the latest research, clinical studies & trials, and treatment programs at Johns Hopkins. It also features a section on the biological basis of the disease that is tailored to a non-scientific audience, primarily caregivers of Alzheimer's patients.

Autoimmune Disease Research Center

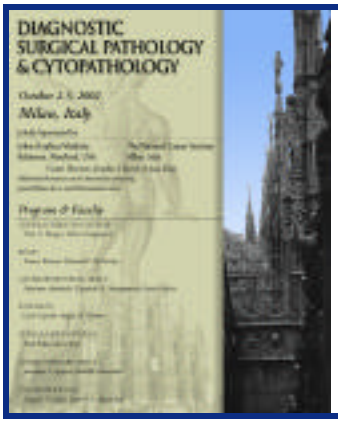
http://autoimmunity.pathology.jhmi.edu

Contributing Faculty : Patrizio Caturegli, M.D., Noel R. Rose, M.D., Ph.D.

The John Hopkins Autoimmune Disease Research Center, formed in 1999, provides the opportunity for basic scientists, clinicians, epidemiologists and geneticists to come together in advancing the battle against autoimmune diseases through research, education and better communication, resulting, eventually, in improved clinical care.

Calendar

December 14, 2001	Department of Pathology Holiday Party – Turner Concourse 2-4pm
February 25, 2002	Johns Hopkins Pathology Alumni Reception 5:30 pm-7:30 pm Michigan A Room Sheraton Chicago Hotel
April 14-20, 2002	National Laboratory Week
April 22, 2002	Pathology Young Investigators' Day
May 9-11, 2002	Mastering the Challenges of Cytopathology
May 17, 2002	Pathology Awards Dinner
May 19, 2002	Employee Appreciation Event at the Baltimore Zoo
October 2-5, 2002	Diagnostic Surgical Pathology and Cytopathology Course, Milan, Italy
November 8-9, 2002	5th Annual Gynecologic Pathology CME Course: Approaches to Common Problems with Emphasis on New Entities and Techniques, Baltimore, MD
November 10-11, 2002	2nd Annual Current Topics in Gastrointestinal Pathology CME Course, Baltimore, MD

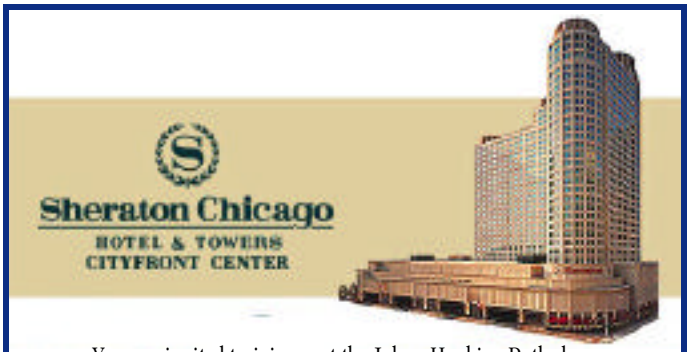


Diagnostic Surgical Pathology and Cytopathology Course,

Milan, Italy
October 2-5, 2002

For more information, please contact jepstein@jhmi.edu

http://pathology2.jhu.edu/conferences/milan.htm



You are invited to join us at the Johns Hopkins Pathology
Alumni Reception
February 25, 2002 - 5:30 pm - 7:30 pm
Sheraton Chicago Hotel, Michigan A Room
301 East North Water Street Chicago, IL 60611 (312) 464-1000

Department of Pathology
Johns Hopkins Medical Institutions
600 North Wolfe Street, Carnegie 417
Baltimore, MD 21287-6417
(410) 955-9790

J. Brooks Jackson, M.D., M.B.A.
Baxley Professor and Director

Editor:
Ralph Hruban, M.D.
Managing Editors:
Mabel Smith and Jennifer Galford

Technical Advisor:
Mitch Heinz

Photographer:
Pathology Photography Staff

Department of Pathology Web Site:
www.pathology.jhu.edu