Calendar

March 1-7, 2008
United States and Canadian Academy of Pathology
97th Annual Meeting
Colorado Convention Center, Denver, Colorado

March 2, 2008
United States and Canadian Academy of Pathology
Fellowship Fair - Four Seasons Ballroom
Colorado Convention Center, Denver, Colorado

March 3, 2008
Johns Hopkins Pathology Alumni Reception
United States and Canadian Academy of Pathology
Hyatt Regency Denver at Colorado Convention Center - HI Centennial E.
Denver, Colorado

April 17, 2008
Pathology Young Investigators’ Day 2008
The Johns Hopkins Medical Institutions Campus
Baltimore, Maryland

April 16-19, 2008
9th Annual Mastering the Challenges of Cytopathology
Tremont Plaza Hotel, Baltimore, Maryland
Home Study - February-April 2008
Course – Tremont Grand Conference Center
Baltimore, Maryland – April 16-18, 2008
Independent Slide Review Day - April 19, 2008

May 16, 2008
Pathology Awards Dinner
The Belvedere, Baltimore, Maryland

For Excellence in
Basic Research
Jose Garza-Garcia, Ph.D.
Paul Esteve, M.D., Ph.D.
Yen-Chun Liu, M.D.
Aditya Kim, B.A.
Kazimiri Maratta, B.A.
Davina Ligons, B.S.
Abdulaziz Mohammad, Ph.D.
Kedar Narayia, B.A.
Noriyuki Onoura, Ph.D.

For Excellence in
Clinical Research
Derdjeng Cao, M.D., Ph.D.
Winnie Wang, M.D., Ph.D.
Tamura S. Flyh, B.S.
Basim Solomon Mohammad, M.D.
Zoil Jubbay, M.D., Ph.D.
Shu-Ling Luang, Ph.D.
Adeboye O. Osimuiya, M.D.
Janis Marie Taule, M.D., M.Sc.
Julie Wu, M.D.

For Excellence in
Translational Research
EL. E. Bat, Ph.D.
Yu Li, BA
Bruce Huang, BA
Xiaobing He, Ph.D.
Jose Rosiley, B.S.
Shane Tsui Liu Macbulli, M.D., M.S.

Congratulations to the 9th Annual Pathology Young Investigators’ Day Award Recipients
April 5, 2007

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

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

The past academic fiscal year has witnessed another year of growth for Pathology in a number of areas.
The number of laboratory tests performed in the Pathology laboratory staff, lab management and directors for working to achieve this favorable balance which is critical to the funding of the new critical care towers due to open in January 2008, and the capital equipment needs of Pathology. The workload in Pathology has also increased at Bayview Hospital and Howard County Hospital increasing by 6.7% and 3.0%, respectively. In the area of patient safety, additional initiatives have been implemented with improvement in all patient safety dashboard goals to date. Continuous improvement in patient safety is an ongoing process which we believe will lead to better patient outcomes and more cost effective care.

In 2003, the Department of Pathology recognized the need to enhance its expertise in the area of cardiovascular disease and formed a stand alone Division of Cardiovascular Pathology. Previously, the cardiovascular service was within the Cardiopulmonary Division. The Division of Cardiovascular Pathology is thus a new, albeit small division, with aspirations for future expansion and development. The Division currently has three primary faculty whose activities include clinical diagnostic service, research, and teaching. Primary faculty include Charles Stemberger, M.D., Ph.D. (Director), Marc Halashka, M.D., Ph.D., and Gooset Hutchins, M.D. Secondary pathology faculty in the Division include Ralph Hruban, M.D., a former director of the Cardiopulmonary Division, and William Baldwin III, M.D., Ph.D. The Division is responsible for the diagnostic interpretation of endomyocardial biopsies obtained from heart transplant patients and from cardiology patients with unexplained heart failure or arrhythmias, and for the evaluation of explanted hearts from transplant recipients. There are approximately twenty heart transplants performed at Johns Hopkins each year, and these patients typically undergo endomyocardial biopsy throughout their life since there is still no better method for assessing cardiac allograft rejection. The Division also receives consult cases from around the country. Faculty meet with the heart transplant and heart failure cardiology teams twice a week to review biopsies (see photo on page 4).

In addition to their clinical responsibilities, the Division is actively involved in teaching, research, and the autopsy service. Heart disease is the most common cause of death in the United States and a thorough cardiovascular evaluation is an essential component of a complete autopsy. Dr. Hutchins was formerly the director of the autopsy service and is still prominent in its operation. Dr. Halashka is also attending on the autopsy service. Members of the Division participate in teaching medical students, pathology and medicine residents, graduate students and cardiologists. Members of the Division are also actively involved in basic and applied research on cardiovascular disease. Research focuses on several aspects of cardiovascular disease, ischemia...
Achievements include less wastage of blood, fewer mislabeled specimens, and faster reporting of critical action values. Barbara Parsons and her staff, working Division leaders and QA/QC staff deserve much of the credit.

Pathology is playing a leading role by implementing initiatives to increase the diversity of the workforce at all levels. These initiatives include increasing the pipeline of underrepresented minority and women trainees in Pathology for student Pathology electives, the residency and graduate student programs, and hospital staff positions through outreach programs at local high schools and active recruitment of underrepresented minorities from Johns Hopkins Medical School and traditionally African American medical schools. Women are well represented in Pathology training programs constituting the majority in the Residency program and Pathology graduate student programs. In terms of full-time Pathology faculty, 46% of Assistant Professors are women, 34% Associate Professors, and 17% Professors compared with 45%, 28%, and 38% respectfully for the School of Medicine as a whole. In the past two years, 4 or 94% promoted to Professor in Pathology have been women. This trend is very likely to continue as a larger number of women advance through the academic ranks and move into leadership positions.

On the university side of the Department, probe income increased by 19% driven primarily by an increase in outside consults for interpretation and addition of the Eye Pathology service. Research funding reached another all time high with an annual increase of 6.1% at a time when the NIH budget was flat (see figure below). Over 200 first or last author peer reviewed articles were published by primary faculty in Pathology. In addition, donations of over $4.5 million dollars were also received this past year from generous donors to support research in pancreatic cancer, neuropathology, and HIV research in Uganda. These funds will support innovative research projects by junior investigators.

In terms of our educational programs, 11 new excellent pathology residents started this past July and 6 new graduate students started in the Pathology programs in September. A number of our faculty have been involved in the School of Medicine’s plan to redesign the medical school curriculum which will be implemented in 2009. It is envisioned that Pathology will play a major role in all four years, not just the predominant role it now plays in year 2.

Despite the notable achievements this past year, the current academic year will bring new challenges including another full Joint Commission survey of the laboratories this fall, more stringent ACGME reviews of our fellowship programs, possible further reductions in NIH funding for new grant awards, government restrictions in pathology probe reimbursement, and increasing documentation requirements in a number of regulated areas. Given the talent and hard work of our faculty, trainees, and staff, I am confident we will deal with these challenges successfully as well.

Pathology Research Expenditures Growth

![Graph showing Pathology Research Expenditures Growth from 1999 to 2007.]

**Annual Increase** 11.0% 15.7% 36.3% 7.4% 15.1% 7.2% 2.0% 18.2% 6.2%

The new Multi-Disciplinary Pancreatic Cancer Clinic Web site has been a big success. Launched last spring, it provides patients and families quick access to important information such as services provided by the clinic, which patients are appropriate candidates for the clinic, and how to reach clinic members.

The Pathology Department has a new Web server for the division and disease Web sites, and as older sites are migrated to the new hardware, they will be optimized for accessibility and generally spruced up. Coldfusion 8.0 and PHP are available, as well as SQL Server 2005. Any pathology staff currently maintaining a lab or division site can contact Jim Doran for more information.

Finally, the pathology Web site is currently being developed with a new look. The site has been designed to improve the service provided to our thousands of daily visitors. In addition to a new look, the site will provide functionality such as pod casting, RSS feeds and more streaming video.

Pathology staff and house resources are also getting a new area, to better find your favorite tools. Coming soon to your browser…

Have an idea for a new Web project? Need help updating an existing Web site? Contact Jim Doran at jdoran5@jhu.edu.
Continued on page 4

Pathology Employee Appreciation Picnic

After many months of careful behind-the-scenes planning, the Pathology Department held its annual Employee Appreciation Picnic on Sunday, September 16, 2007, at Camden’s Ruth Villa, a private waterfront park in Middle River, Maryland.

A chilly morning gave way to a sunny balmy afternoon. Overlooking the sparkling waters of Frog Mortar Creek as sailboats glided by, employees and their families relaxed and enjoyed the beautiful scenery. Steamered crabs, corn on the cob, crab soup, and ice cream were among the menu items. A disc jockey provided music, and volleyball and ultimate frisbee games were played in the park. This year’s picnic had special activities for younger children.

Approximately 1,200 Pathology employees and family members attended this summer’s Appreciation Picnic. Dr. Jackson would like to again thank Rosemary Hines, Susan Carreira, and Stacey Morgan for their hard work in making the day a special and memorable one for employees and their families.

repercussion in heart failure and diabetic cardiovascular disease, and our faculty are also interested in immune-mediated cardiovascular disease. The Division collaborates extensively with faculty in other departments, notably the Division of Cardiology in the Department of Medicine, in their effort to develop stem cell therapies for the treatment of patients with endstage heart failure, and as consultants in other projects involving histologic evaluation of the myocardium in animal models of disease.

Research

Basic cardiovascular research is directed by three faculty working on the sixth floor of the Ross Building. Dr. Halushka, Baldwin, and Steenbergen. In addition, clinical research derived from tissue and autopsy material is also undertaken.

Dr. Steenbergen’s research is primarily focused on ischemia/reperfusion injury. He began working in the area as a graduate student at the University of Pennsylvania, working on metabolic regulation in ischemic myocardiun, and training for many years with Dr. Robert Jennings, Keith Reimer, and Donald Hackel at Duke. His research is on basic mechanisms of ischemia/reperfusion injury, and on endogenous protective mechanisms which can be activated to minimize or delay ischemic injury. It has become clear over the past 20 years that there are endogenous protective mechanisms that can reduce the amount of cell death that occurs with a given duration of ischemia by up to 75%. The focus of Dr. Steenbergen’s laboratory is the signaling pathways that are activated immediately, and how they confer the protective effect. Current research is targeted at the downstream mechanisms of protective, and the possible role of mitochondria in these mechanisms. A current concept of cell death during ischemia/reperfusion involves the opening of a large channel in the mitochondrial membrane, the mitochondrial permeability transition pore (mPTP), as a final event in cell death. Opening of the mPTP would rapidly dissipate the membrane potential, precluding ATP synthesis, and would allow release of ions and proteins from the matrix, including potentially calcium and activators of apoptosis, which would lead to cellular disintegration. This opens the possibility that a final common pathway of cardioprotection could be inhibition of the opening of the mPTP. How the cardioprotective signaling pathways accomplish this remains to be determined. Since ischemic heart disease is the number one cause of mortality in the United States today, and since infants are a major determinant of outcome in patients with a myocardial infarction, better understanding of the mechanisms of lethal ischemic injury is likely to lead to better strategies for treating patients with acute coronary syndromes.

In addition to research on basic mechanisms of cell injury, Dr. Steenbergen has also been involved as a collaborator in studies of stem cell engraftment into the myocardium in models of myocardial infarction and in normal myocardium. These studies have been performed in the Department of Medicine, Cardiology Division. At the present time, stem cell therapy is the most promising option for treating patients who have already had one or more myocardial infarctions and are in heart failure. The utility of this therapy is limited at the present time, in large part because of the poor survival of the injected stem cells. Don’t worry, these projects have exclusively involved adult stem cells, either mesenchymal stem cells or cardiac derived stem cells. In contrast to what was considered common dogma just a few years ago, it is now clear that there are stem cells in adult myocardium, which can be induced to proliferate in culture, and which can be injected into patients. Stem cells can be obtained from endomyocardial biopsies from patients with heart failure, expanded in culture, and potentially injected several weeks into the same patient to avoid rejection. This is an exciting and rapidly evolving field that is likely to have major clinical impact over the next decade.

Dr. Halushka started his scientific career in genetics at Case Western Reserve University, working in the laboratory of Dr. Aravinda Chakravarti. This initial work described the rates of genetic variation in candidate genes for hypertrophic cardiomyopathy, training in Anatomic Pathology at Johns Hopkins. Dr. Halushka shifted his focus to working directly with diseased human tissues. Dr. Halushka’s research is now focused on diabetic vascular disease. Dr. Halushka has taken two approaches to understanding the cause of strokes, myocardial infarctions, and renal failure in diabetic subjects. The first was to develop a novel set of vascular tissue microarrays (TMA) containing over 1,500 tissues collected from 100 adult autopsies in patients with and without diabetes. From this collection, his laboratory has been investigating the expression of a wide range of proteins related to advanced glycation end products (AGEs) and their receptors in a global distribution of blood vessels. The initial steps of this project have been to validate the role of immunolistochemistry in autopsy tissues and to validate TMA’s for vascular disease study. A second project has been initiated to investigate the role of diabetes in vascular memory using primary human endometrial cell cultures. This project will determine whether high glucose or AGEs result in continued endometrial cell dysfunction, even after a return to normal glucose levels. The goal of this study is to identify pathways that need to be targeted to improve endometrial function in diabetic subjects.

Wink Baldwin studies components of innate immunity (complement, macrophages and platelets) that modulate adaptive immunity (T and B lymphocytes, and antibodies) to heart transplants. His research training began in the MST program at the University of Rochester with Dr. Nicholas Cohen on phylogenetic aspects of immunity. His interests in transplantation were enhanced during his residency in Pathology at the Peter Bent Brigham Hospital, where Dr. Darren (Pathology), Merrill (Nephrology) and Murray (Surgery), who were members of the team that performed the first successful renal transplant, were still active. A Fellowship at The Academic Hospital in Leiden, The Netherlands, where Eurotransplant is centered, brought him experience in tissue typing and complement. His research in these areas continued to evolve as a faculty member at Duke and then at Hopkins. He also collaborates extensively with Dr. Barbara Wasowska, Craig Morrell (graduate of our...
Spotlight: The Division of Cardiovascular Pathology

Margaret Lee Fellows

Thanks to the generosity of the Family of Margaret Lee we are able to continue our very successful partnership with Singapore. In 2006 we were pleased to have four gifted students from Singapore join our Graduate Training Program in Pathobiology (Sophie Lin, Shaaretha Pelly, Koh Meng Aw Yong, Kai Lee Yap), and this year (2007-2008) we are pleased to announce that Kah Jing Lim and Yiting Lim (see page 11) are our new Margaret Lee fellows. Congratulations to all of our fellows.

Future Directions

The Division would like to expand eventually to include a vascular biologist who would have an interest in signaling mechanisms, potentially involved in both diabetes and ischemia reperfusion injury, and also immunologic mechanisms of injury. This would allow the research efforts of the Cardiovascular Division to concentrate in related areas, and also promote more interaction with the Immunology Division. An example would be integrated studies, together with members of the Immunology Division, of heart transplant vasculopathy. The interplay between humoral and cellular immunologic mechanisms in the development of transplant vasculopathy remains to be established, and this could be a very fruitful area of collaboration. The development of new therapeutic approaches to prevent, delay, or reverse transplant vasculopathy could have major translational impact.

We welcome clinical, teaching and research collaborations, and look forward to a growing role in the Pathology Department!

Brent Orr

Brent Orr is a native of Bloomington, Illinois. His undergraduate, graduate and medical education was undertaken at the University of Illinois. During his PhD work, he investigated tumor immunology and demonstrated the role of CD28 ligand density in T-cell stimulation. Outside of the lab Brent was committed to the service of indigent populations through community activities. In his free time he enjoys outdoor sports including wakeboarding, which Wikipedia defines as “a water sport which involves riding the wake of a speed boat on a single board.” He will be pursuing AP/CP training.

Hillary Ross

Hillary was born in New York, New York. She majored in Neuroscience as an undergraduate at Pomona College and subsequently served as a research assistant at the Cognitive Neuropharmacology Unit in Bethesda, Maryland where she studied dementia. Hillary excelled as a medical student at the University of Arizona College of Medicine where she was elected to Alpha Omega Alpha in addition to receiving recognition for her commitment to underserved populations. Her interests include tennis, travel and literature. She will be pursuing AP/CP training.

Aatur Singh

Aatur was born in Chicago, Illinois. After studying Chemistry as an undergraduate at Northwestern University, he entered the M.D./Ph.D. program at the University of Illinois, Chicago where he developed a new genetic methodology for discovering potential tumor suppressors. After being drawn to Cleveland by his thesis advisor, Aatur proved his resilience by receiving several research awards before completing his training at Case Western Reserve University. In his spare time, he is an avid tennis player and helped to set up a tennis club at the Cleveland Clinic Lerner Research Institute. He will be pursuing AP/CP training.

Rui Zhe

Rui was born in Beijing, China. She received multiple academic honors as a medical and Ph.D. student at Beijing Medical University and somehow managed to squeeze in an internal medicine residency. Following completion of her training, she came to Johns Hopkins where she has spent time as a postdoctoral fellow and research associate. Her work has clarified the role of the FLTS receptor and its ligand in leukemogenesis, leading to publications in several prestigious journals. In her free time, Rui enjoys cooking, hiking and spending time with her family. She is interested in AP/CP training.

News from the Fellowship office

Recruiting fellows: For the first time, our Department will have a booth at the annual USCAP Fellowship Fair for Pathologists-in-Training. The Fair will be held at the Annual Meeting in Denver on Sunday, March 2, from 5:00 - 7:00 p.m. in the Four Seasons Ballroom at the Colorado Convention Center.

Please contact Dr. David Berman or Terry Aman if you would like more information about Pathology’s representation at the Fellowship Fair.
Joseph Aoki

Joseph was born in Honolulu, Hawaii. He completed his undergraduate training at the University of Washington where he received a degree in Zoology with a minor in Medical History and Ethics. He subsequently returned to his home state to attend the University of Hawaii, John A. Burns School of Medicine. While in medical school, Joseph studied the Wiscott Aldrich Syndrome protein as a Howard Hughes Medical Institute-National Institutes of Health Research Scholar. His research led to several awards including recognition as the “Scholar of the Year” in 2006. A surfing enthusiast, Joseph spends his free time “hangin’ loose” on the beaches of Honolulu. He will be pursuing AP/CP training.

Wei Jiang

Wei was born in Beijing, China. She received her medical education at Beijing Medical University where she was in the top 5% of her class. Following graduation, she emigrated to Syracuse University and went on to receive a Ph.D. As a post-doctoral fellow at Harvard she studied mammalian cell growth and differentiation, leading to publications in several high impact journals. While at Harvard, Wei developed an interest in pathology during a clinical rotation at Massachusetts General Hospital. She hopes to apply her strong basic science background to translational research within the field and to one day be an academic pathologist. She will be pursuing AP/CP training.

Matthew Karafin

Matthew was born in Philadelphia, Pennsylvania. He graduated from Grinnell College in Grinnell, Iowa where he received a degree in Biology. He then proceeded to the University of Iowa College of Medicine where he received several scholarships and was elected to Alpha Omega Alpha. In medical school, he conducted a retrospective study on the circadian patterns of seizures in patients with temporal lobe epilepsy. Outside of work, Matthew’s interests range from ancient cultures to music, and he is a talented saxophonist. He will be pursuing AP/CP training.

Carla Ellis

Carla was born in Columbus, Georgia. She graduated from Howard University in Washington, DC, with a degree in psychology. Carla comes to us with significant experience in pathology, having received a Masters degree in Anatomic Pathology from the University of Maryland and subsequently worked as a Pathologist’s Assistant. She received her medical education at the University of Nevada School of Medicine in Las Vegas where she was involved in microvascular research. In addition to taking an occasional Wayne Newton concert, Carla was very active at the community and national level, spending time in Washington, DC as a lobbyist for global AIDS prevention. She is pursuing AP/CP training.

Kathryn Jockovic

Kathryn Jockovic was born in Nancy, France. As an undergraduate at the University of Colorado she majored in Biochemistry and Women’s Studies. While there, she ambitiously sought to design a silicon chip with an embedded nanopore that was capable of discriminating between the bases of long strands of DNA. Finally coming to her senses as a medical student at George Washington University, Kathryn decided to pursue pathology. In addition to her academic endeavors, she is an accomplished dancer and is currently studying Argentine tango. She is interested in AP/CP training.

Oliver McDonald

Oliver McDonald was born in Jackson, Tennessee. Following his undergraduate education at the University of Tennessee, he entered the Medical Scientist Training Program at the University of Virginia where he studied histone modification as it relates to smooth muscle cell physiology and pathology. A prolific researcher, his work was recognized with several awards and training grants. While not reading and thinking about medicine and science, Oliver is an avid sports fan. He will be pursuing AP/CP training.

Allen Valentine Named Administrator for Clinical and Financial Affairs

Dr. Brooks Jackson announced that Mr. Allen (“Al”) Valentine has been appointed Administrator for Clinical and Financial Affairs for the Department of Pathology effective September 17, 2007. Mr. Valentine graduated from Pennsylvania State University with a B.S. degree in Medical Technology and holds an M.B.A. from Loyola College in Baltimore. He started his career at The Johns Hopkins Hospital in 1980 as a medical technologist in Special Chemistry and later held positions as QC Technologist, Outreach Manager, and Financial Manager. Since 2001, he has served as the Assistant Administrator of Clinical Services in the Department of Pathology, responsible for the clinical and financial operations of The Johns Hopkins Hospital Core Laboratories, the Howard County General Hospital’s Laboratories, and all Johns Hopkins Outreach sites.

Working closely with faculty, administration, and staff, Mr. Valentine has played a key leadership role within The Johns Hopkins Medical Institutions. He facilitated automated technologies in Chemistry and Hematology, and supported an enhanced Phlebotomy service that ensures that laboratory results are available to Surgery by 5:00 a.m. and Medicine by 7:00 a.m. each day. He has championed numerous Pathology Data Systems projects which support both our laboratories as well as our clinical customers. He has taught laboratory management to residents and fellows, served on numerous Hospital committees, and has been working closely with the new clinical building committee. His clinical laboratory management expertise and dedication and commitment to the mission of The Johns Hopkins Medical Institutions has been clearly evident, and we wish him all the best in his new role as Administrator of Clinical and Financial Affairs.
Welcome to the Graduate Training Program in Pathobiology 2007-2008 Incoming Students

Kristen Bankert

Born in York, Pennsylvania, Kristen received her B.S. in Genetic Engineering from Cedar Crest College in May 2007. While at Cedar Crest she was a member of the Hale Lab where, for her senior thesis, she worked to understand the variability of hemolytic activity in Chromobacterium violaceum, an opportunistic pathogen. She was the President of the Cedar Crest Chapter of Beta Beta, a research director, and a lab assistant. In the summer of 2006 she completed a summer internship at Johns Hopkins where she cloned and overproduced two enzymes of the MEP pathway and performed Michaelis-Menten kinetic assays on another enzyme in the pathway. Kristen would like to study microbial pathogenesis.

Jessica Lidstrom

Jessica grew up in Stockholm, Sweden and received her B.S. and M.S. in Biology from American University in May 2004 and August 2005 respectively. Her M.S. thesis focused on lung cancer research and was performed at the National Cancer Institute. She is currently completing pre-doctoral research at the National Institute on Alcohol Abuse and Alcoholism, conducting a combined genetic and expression analysis in human postmortem samples. Jessica would like to explore the different tracks in the Pathobiology program and her career goal is to become a researcher who can contribute to the field of biomedicine.

Kah Jing Lim

Kah Jing was born in Singapore and received her B.Sc. from the National University of Singapore in 2006 where she graduated with honors in Life Science with a concentration in Biomedical Sciences. Kah Jing spent a year in the development neurobiology laboratory at the Institute of Molecular and Cell Biology, working on projects that aimed at identifying novel proteins involved in Drosophila neuroblast asymmetric division in an attempt to elucidate its underlying molecular mechanisms. Her long term goal is to be a researcher scientist, focusing on understanding genetic and molecular changes that lead to cancer development. Kah Jing is one of our Margaret Lee fellows.

Yiting Lim

Yiting was born in Johor Bahru, Malaysia, and received all her education in Singapore. She graduated from the National University of Singapore with a B.S. (Hons) in Life Science, concentration in Molecular and Cellular Biology, in 2007. Her research experience includes working with transcription factors in embryonic stem cells at the Genome Institute of Singapore, developmental neurobiology over a summer at Caltech, and an internship in a biotech company. At Johns Hopkins she would like to deepen her understanding of Neuroscience and study the molecular pathogenesis of neurodegenerative disorders. Yiting is fascinated by the application of basic research in translational research and medicine; one of her many interests would be to work on treating neurodegenerative diseases such as ALS and Parkinson’s using stem cells. She hopes to establish a career in translational research and holds on to the dream of applying breakthroughs in basic research in the clinics. Yiting is one of our Margaret Lee fellows.

Ayon Nandi

Ayon was born in Calcutta, India, and grew up in central New Jersey. He attended Yale and received his B.S. in Molecular Biophysics and Biochemistry in 2001, and an M.S. from Johns Hopkins in 2004. His research experiences include summer research fellowships at Yale, a post-baccalaureate fellowship at the NIH and a research assistant at JHU. Ayon has co-authored several publications and was first author on a paper describing a novel serotonin inhibitor. Ayon’s other post-baccalaureate research experiences included work in neurotransmitter interactions, and imaging neurotransmitter drug abuse, Tourette’s syndrome, Rett’s syndrome and schizophrenia. Ayon’s goal is to pursue translational research on neurological disorders – to look at clinical and pathological correlations to different disease-states. He is interested in researching novel medications and clinical treatments for neurological disorders.

Denise Schultz

Denise was born in Des Moines, Iowa and currently lives in Baltimore, Maryland. She received a B.S. in Biology from the University of Dubuque in 1989, an M.S. in Biology from the University of Northern Iowa in 1999, and a D.V.M. in Veterinary Medicine and Surgery from Iowa State University in May 1997. Her interests are focused on infectious diseases. Prior to starting at Johns Hopkins, Denise had worked in developing an animal model for monkeypox virus. Her long term goal is to work within an academic or government setting as a researcher and a board certified veterinary pathologist.

Yener Erozan and Prabodh Gupta

Brenda Erozan, Doug Clark, Yener Erozan, Syed Ali, Karen Gustafson

Ed and Myrna Pigo

Good Luck Ed Pigo - Have a Happy Retirement

Mark Bunich, Barbara Crain, Jonathan Epstein, Serena Bagnasco, Ed Pigo

Yener Erozan and Doug Clark

Lee fellows.

changes that lead to cancer development. Kah Jing is one of our Margaret Lee fellows.
New Faculty

Mostafa Fraig Visiting Associate Professor Bayview Pathology
Hind Nassar Assistant Professor Surgical Pathology
Megan Rehler Assistant Professor Microbiology
Stefan Riedel Assistant Professor Bayview Pathology
Zahra Maleki Instructor Bayview Pathology
Jason Daniels Assistant GI/Liver Pathology
Jeffrey Iding Assistant Surgical Pathology
William Ingram Assistant Surgical Pathology
Thomas McConnell Assistant Gynecologic Pathology
Shien Micchelli Assistant Surgical Pathology
Joshua Winell Assistant Surgical Pathology
Fiona Laird Research Associate Neuropathology

Departures

Soner Altok Assistant Professor Moffitt Cancer Center, Tampa, FL
John Tochhurst Assistant Professor JHU, Applied Physics Lab, Laurel, MD
Dingrong Cao Assistant Washington University, St. Louis, MO
Hubert Fenton Assistant University of California at San Francisco, San Francisco, CA
Kara Jackson Assistant Lenox Hill, New York, NY
Diana Molavi Assistant Sinai Hospital, Baltimore, MD
Natasha Behrman Assistant Memorial Sloan-Kettering Cancer Center, New York, NY

Promotions

Patrizio Caturegli Associate Professor Immunology

New Grants and Contracts Awarded to Pathology Faculty, 2007

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Dr. Jackson and Our New Professors

Lee Martin, Mary Glenn Fowler, Susan Edelman, Brooks Jackson, Brigitte Ronnett, Walter Kaufmann, Charles Steinbergen
The Donald L. Price, M.D. Research Fund

It is with great pleasure that we announce a campaign to endow a fund for research by trainees in neuropathology in honor of Dr. Donald Price. The Donald L. Price, M.D. Research Fund will not only honor one of our most respected scientists and mentors, but it will also support research in neuropathology at Johns Hopkins.

Dr. Price came to The Johns Hopkins Medical Institutions in 1971 as the Director of the Division ofNeuropathology and since 1985 he has been the Director of the Alzheimer’s Disease Research Center. He is a Professor in the Departments of Pathology, Neurology and Neuroscience.

For over four decades Dr. Price has made important contributions to the understanding of a variety of diseases, particularly peripheral neuropathies, disorders caused by toxins (tetanus toxin, botulinum toxin), and, most significantly, over the past two decades, neurodegenerative disorders such as Alzheimer’s Disease (AD), Amyotrophic Lateral Sclerosis (ALS) and Parkinson’s Disease (PD). Dr. Price’s major research interest is to move between bedside and bench and back again through the development and analysis of animal models that can be used to examine pathogenic mechanisms, to identify possible therapeutic targets, and test novel therapies. These approaches have become particularly important with the recent progress in identifying genes linked to diseases, and the power of transgenic and knockout approaches to clarify the biology of normal and abnormal gene products in vivo.

Dr. Price has recruited an outstanding cohort of young scientists to work on neurodegenerative diseases, and it is therefore only appropriate that we honor him by creating an endowment that will fund research by trainees in neuropathology to carry on the outstanding programs he has established.

If you would like to support this important fund, please send your tax-deductible contributions payable to The Donald L. Price, M.D. Research Fund to:

Fund Office
Department of Pathology
The Johns Hopkins Hospital
600 North Wolfe Street
Carnegie 439
Baltimore, MD 21287-6417

Funding Our Future

Our funds and fellowships honor some of our trusted faculty and staff, and the funds and fellowships provide critical support for the training of talented physicians and scientists. We are pleased to announce a campaign to endow a fund to support research by trainees in neuropathology in honor of Dr. Donald Price. This endowment honors one of our most respected scientists and mentors. Please see page 8 to learn more about The Donald L. Price, M.D. Research Fund, and also consider supporting this fund or one of the other opportunities listed below.

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The Joseph Eggleston Fund continues to support research conducted by our residents. The results of Dr. Danielle Wehle’s research (recently submitted to Modern Pathology) and the test she developed using funds from the Eggleston fund, a FISH test for i12p on paraffin embedded tissue, has been approved as a clinical test.

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Although Vener Erozun officially retired in July, he 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 Vener has done for the Department and for the Division of Cytopathology over the years is to donate to this important fellowship.

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Baltimore, MD 21287-6417

Lydia Nelson Named Assistant Administrator, Core Laboratories

Allen Valentine announced that Lydia Nelson has been named Assistant Administrator for the Core Laboratories, effective November 12, 2007. She will be responsible for the overall clinical and financial operations of The Johns Hopkins Hospital Core Laboratories. Ms. Nelson holds a B.S. degree in Medical Technology from Shepherd College in Shepherdstown, West Virginia, and an M.S. in Biotechnology from Hood College in Frederick, Maryland. She has been employed by The Johns Hopkins Hospital since 1979 when she began her career as a Medical Technologist in the Hematology Laboratory. She was subsequently promoted to Lead Technologist and Laboratory Specialist in Coagulation, and has served as the Core Lab Evening Shift Supervisor since 1998.

Ms. Nelson coordinated the technical development of both the Special Coagulation and the Flow Cytometry Labs, and played a leading role in the establishment of QC, QA, and competency guidelines for various areas of the Core Laboratory. She has been actively involved in membership and development of personnel for advancement on all levels of the laboratory career ladder and has spearheaded numerous community support programs, including the annual Departmental “Clean Out Your Closets” food and clothing drive. With extensive expertise in all aspects of the Core Lab and known for her tireless dedication to Johns Hopkins, Ms. Nelson is wished continued success in her new position as Assistant Administrator.
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The Mabel Smith Endowment for Resident Research

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 a talented student into the field of pathology.

The John H. Yardley Fellowship in Gastrointestinal Pathology

Dr. Yardley has now retired but he still is an active participant in GI Pathology Journal Conference and in the weekly GI/Liver interest case conference. Dr. Jennifer Scuidere is the Yardley Fellow for 2007-2008.

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New Faculty

Mostafa Fraig Visiting Associate Professor Bayview Pathology
Hind Nasser Assistant Professor Surgical Pathology
Megan Reller Assistant Professor Microbiology
Stefan Riedel Assistant Professor Bayview Pathology
Zahra Maleki Instructor Bayview Pathology
Jason Daniels Assistant G/I/Liver Pathology
Jeffrey Iding Assistant Surgical Pathology
William Ingram Assistant Surgical Pathology
Thomas McConnell Assistant Gynecologic Pathology
Fiona Laird Research Associate Neuropathology

Departures

Soner Altiok Assistant Professor Moffitt Cancer Center, Tampa, FL
John Ticehurst Assistant Professor JHU, Applied Physics Lab, Laurel, MD
Dengfeng Cao Assistant Washington University, St. Louis, MO
Jon Davison Assistant University of Pittsburgh, Pittsburgh, PA
Hubert Fenton Assistant University of Pittsburgh, Pittsburgh, PA
Kara Judson Assistant Lenox Hospital, New York, NY
Diana Molavi Assistant Sinai Hospital, Baltimore, MD
Natasha Behrman Assistant Memorial Sloan-Kettering Cancer Center, New York, NY

Promotions

Patrizio Caturegli Associate Professor Immunology

New Grants and Contracts Awarded to Pathology Faculty, 2007

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**TOTAL** $22,617,790

Dr. Jackson and Our New Professors

Lee Martin, Mary Glenn Fowler, Susan Eshleman, Brooks Jackson, Brigitte Ronnett, Walter Kaufmann, Charles Stonerberg
Good Luck Ed Pigo - Have a Happy Retirement

Welcome to the Graduate Training Program in Pathobiology 2007-2008 Incoming Students

Kristen Bankert
Born in York, Pennsylvania, Kristen received her B.S. in Genetic Engineering from Cedar Crest College in May 2007. While at Cedar Crest she was a member of the Hale Lab where, for her senior thesis, she worked to understand the variability of hemolytic activity in Chromobacterium violaceum, an opportunistic pathogen. She was the President of the Cedar Crest Chapter of Beta Beta Beta, a research director, and a lab assistant. In the summer of 2006 she completed a summer internship at Johns Hopkins where she cloned and overproduced two enzymes of the MEP pathway and performed Michaelis-Menten kinetic assays on another enzyme in the pathway. Kristen would like to study microbial pathogenesis.

Jessica Lidstrom
Jessica grew up in Stockholm, Sweden and received her B.S. and M.S. in Biology from American University in May 2004 and August 2005 respectively. Her M.S. thesis focused on lung cancer research and was performed at the National Cancer Institute. She is currently completing pre-doctoral research at the National Institute on Alcohol Abuse and Alcoholism, conducting a combined genetic and expression analysis in human postmortem samples. Jessica would like to explore the different tracks in the Pathobiology program and her career goal is to become a researcher who can contribute to the field of biomedicine.

Kah Jing Lim
Kah Jing was born in Singapore and received her B.Sc. from the National University of Singapore in 2006 where she graduated with honors in Life Science with a concentration in Biomedical Sciences. Kah Jing spent a year in a developmental neurobiology laboratory at the Institute of Molecular and Cellular Biology, working on projects that aimed at identifying novel proteins involved in Drosophila neuroblast asymmetric division in an attempt to elucidate its underlying molecular mechanism. Her long term goal is to be a research scientist, focusing on understanding genetic and molecular changes that lead to cancer development. Kah Jing is one of our Margaret Lee fellows.

Yiting Lim
Yiting was born in Johor Bahru, Malaysia, and received all her education in Singapore. She graduated from the National University of Singapore with a B.S. (Honors) in Life Science, concentration in Molecular and Cellular Biology, in 2007. Her research experience includes working with transcription factors in embryonic stem cells at the Genome Institute of Singapore, developmental neurobiology over a summer at Caltech, and an internship in a biotech company. At Johns Hopkins she would like to deepen her understanding of Neuroscience and study the molecular pathogenesis of neurodegenerative disorders. Yiting is fascinated by the application of basic research in translational research and medicine; one of her many interests would be to work on treating neurodegenerative diseases such as ALS and Parkinson’s using stem cells. She hopes to establish a career in translational research and holds on to the dream of applying breakthroughs in basic research in the clinic. Yiting is one of our Margaret Lee fellows.

Ayon Nandi
Ayon was born in Calcutta, India, and grew up in central New Jersey. He attended Yale and received his B.S. in Molecular Biophysics and Biochemistry in 2001, and an M.S. from Johns Hopkins in 2004. His research experiences include summer research fellowships at Yale, a post-baccalaureate fellowship at the NIH and a research assistant at JHU. Ayon has co-authored several publications, and was first author on a paper describing a novel serotonin inhibitor. Ayon’s other post-baccalaureate research experiences included work in neurotransmitter interactions, and imaging neuroreceptors in drug abuse, Tourette’s syndrome, Rett’s syndrome and schizophrenia. Ayon’s goal is to pursue translational research on neurological disorders – to look at clinical and pathological correlations to different disease states. He is interested in researching novel medications and clinical treatments for neurological disorders.

Denise Schultz
Denise was born in Des Moines, Iowa and currently lives in Baltimore, Maryland. She received a B.S. in Biology from the University of Dubuque in 1989, an M.S. in Biology from the University of Northern Iowa in 1999, and a DVM in Veterinary Medicine and Surgery from Iowa State University in May 1997. Her interests are focused on infectious diseases. Prior to starting at Johns Hopkins, Denise had worked in developing an animal model for murine leprosy. Her long term goal is to work within an academic or government setting as a researcher and a board certified veterinary pathologist.
Department of Pathology Incoming House Staff, 2007-2008

Joseph Aoki

Joseph was born in Honolulu, Hawaii. He completed his undergraduate training at the University of Washington where he received a degree in Zoology with a minor in Medical History and Ethics. He subsequently returned to his home state to attend the University of Hawaii, John A Burns School of Medicine. While in medical school, Joseph studied the Wiscott Aldrich Syndrome protein as a Howard Hughes Medical Institute-National Institutes of Health Research Scholar. His research led to several awards including recognition as the “Scholar of the Year” in 2006. A surfing enthusiast, Joseph spends his free time “hangin’ loose” on the beaches of Honolulu. He will be pursuing AP/CP training.

Carla Ellis

Carla was born in Columbus, Georgia. She graduated from Howard University in Washington, D.C. with a degree in psychology. Carla comes to us with significant experience in pathology, having received a Masters degree in Anatomic Pathology from the University of Maryland and subsequently worked as a Pathologist’s Assistant. She received her medical education at the University of Nevada School of Medicine in Las Vegas where she was involved in molecular research. In addition to taking an occasional Wayne Newton concert, Carla was very active in the community and national level, spending time in Washington, D.C. as a lobbyist for global AIDS prevention. She is pursuing AP/CP training.

Wei Jiang

Wei was born in Beijing, China. She received her medical education at Beijing Medical University where she was in the top 5% of her class. Following graduation, she enrolled at Syracuse University and went on to receive a Ph.D. As a post-doctoral fellow at Harvard she studied mammalian cell growth and differentiation, leading to publications in several high impact journals. While at Harvard, Wei developed an interest in pathology during a clinical rotation at Massachusetts General Hospital. She hopes to apply her strong basic science background to translational research within the field and to one day be an academic pathologist. She will be pursuing AP/CP training.

Matthew Karafin

Matthew was born in Philadelphia, Pennsylvania. He graduated from Grinnell College as a Biochemistry major, then proceeded to the University of Iowa College of Medicine where he received several scholarships and was elected to Alpha Omega Alpha. In medical school, he conducted a retrospective study on the circadian patterns of seizures in patients with temporal lobe epilepsy. Outside of work Matthew’s interests range from ancient cultures to music, and he is a talented saxophonist. He will be pursuing AP/CP training.

Kathryn Jockovic

Kathryn Jockovic was born in Nancy, France. As an undergraduate at the University of Colorado she majored in Biochemistry and Women’s Studies. While there, she ambitiously sought to design a silicon chip with an embedded nanopore that was capable of discriminating between the bases of long strands of DNA. Finally coming to her senses as a medical student at George Washington University, Kathryn decided to pursue pathology. In addition to her academic endeavors, she is an accomplished dancer and is currently studying Argentine tango. She is interested in AP/CP training.

Oliver McDonald

Oliver McDonald was born in Jackson, Tennessee. Following his undergraduate education at the University of Tennessee, he entered the Medical Scientist Training Program at the University of Virginia where he studied histone modification as it relates to smooth muscle cell physiology and pathology. A prolific researcher, his work was recognized with several awards and training grants. While not reading and thinking about medicine and science, Oliver is an ardent sports fan. He will be pursuing AP/CP training.

Allen Valentine Named Administrator for Clinical and Financial Affairs

Dr. Brooks Jackson announced that Mr. Allen (“Al”) Valentine has been appointed Administrator for Clinical and Financial Affairs for the Department of Pathology effective September 17, 2007. Mr. Valentine graduated from the Pennsylvania State University with a B.S. degree in Medical Technology and holds an M.B.A. from Loyola College in Baltimore. He started his career at The Johns Hopkins Hospital in 1980 as a medical technologist in Special Chemistry and later held positions as QC Technologist, Outreach Manager, and Financial Manager. Since 2001, he has served as the Assistant Administrator for Clinical Services in the Department of Pathology, responsible for the clinical and financial operations of The Johns Hopkins Hospital Core Laboratories, the Howard County General Hospital’s Laboratories, and all Johns Hopkins Outreach sites.

Working closely with faculty, administration, and staff, Mr. Valentine has played a key leadership role within The Johns Hopkins Medical Institutions. He facilitated automated technologies in Chemistry and Hematology, and supported an enhanced Phlebotomy service that ensures that laboratory results are available to Surgery by 5:00 a.m. and Medicine by 7:00 a.m. each day. He has championed numerous Pathology Data Systems projects which support both our laboratories as well as our clinical customers. He has taught laboratory management to residents and fellows, served on numerous Hospital committees, and has been working closely with the new clinical building committee. His clinical laboratory management expertise and dedication and commitment to the mission of The Johns Hopkins Medical Institutions have been clearly evident, and we wish him all the best in his new role as Administrator of Clinical and Financial Affairs.
Spotlight: The Division of Cardiovascular Pathology

Future Directions

The Division would like to expand eventually to include a vascular biologist who would have an interest in signaling mechanisms, potentially involved in both diabetes and ischemia reperfusion injury, and also immunologic mechanisms of injury. This would allow the research efforts of the Cardiovascular Division to concentrate in related areas, and also promote more interaction with the Immunology Division. An example would be integrated studies, together with members of the Immunology Division, of heart transplant vasculopathy. The interplay between humoral and cellular immunologic mechanisms in the development of transplant vasculopathy remains to be established, and this could be a very fruitful area of collaboration. The development of new therapeutic approaches to prevent, delay, or reverse transplant vasculopathy could have major translational impact.

We welcome clinical, teaching and research collaborations, and look forward to a growing role in the Pathology Department!

Margaret Lee Fellows

Thanks to the generosity of the Family of Margaret Lee we are able to continue our very successful partnership with Singapore. In 2006 we were pleased to have four gifted students from Singapore join our Graduate Training Program in Pathobiology (Sophie Lin, Shaaretha Pelly, Koh Meng Aw Yong, Kai Lee Yap), and this year we have four gifted students from Singapore and a special thanks to Margaret Lee and Al Njoo for making this possible.

Brent Orr

Brent Orr is a native of Bloomington, Illinois. His undergraduate, graduate and medical education was undertaken at the University of Illinois. During his Ph.D. work, he investigated tumor immunology and subsequently served as a research assistant at the Cognitive Neuroscience Unit in Bethesda, Maryland where he studied dementia. Hillary excelled as a medical student at the University of Arizona College of Medicine where she was elected to Alpha Omega Alpha in addition to receiving recognition for her commitment to underserved populations. Her interests include tennis, travel and literature. She will be pursuing AVP/CP training.

Hillary Ross

Hillary Ross was born in New York, New York. She majored in Neuroscience as an undergraduate at Pomona College and subsequently served as a research assistant at the Cognitive Neuropharmacology Unit in Bethesda, Maryland where she studied dementia. Hillary excelled as a medical student at the University of Arizona College of Medicine where she was elected to Alpha Omega Alpha in addition to receiving recognition for her commitment to underserved populations. Her interests include tennis, travel and literature. She will be pursuing AVP/CP training.

Safia Salaria

Safia was born in Cincinnati, Ohio. Following her undergraduate education at the University of the Punjab in Lahore, Pakistan, she went on to receive her medical degree from King Edward Medical College, Pakistan. More recently, Safia was a familiar member of our Department, conducting pancreatic cancer research with Dr. Maitra and Goggins. When not discovering biomarkers, she enjoys traveling and learning about different cultures and is fluent in French, Arabic, Urdu, Punjabi and Hindi. Safia will be pursuing AVP/CP training.

Aatur Singhi

Aatur was born in Chicago, Illinois. After studying Chemistry as an undergraduate at Northwestern University, he entered the M.D./Ph.D. program at the University of Illinois, Chicago where he developed a new genetic methodology for discovering potential tumor suppressors. After being dragged to Cleveland by his thesis advisor, Aatur proved his resilience by receiving several research awards before completing his training at Case Western Reserve University. In his spare time, he is an avid tennis player and helped to set up a tennis club at the Cleveland Clinic Lerner Research Institute. He will be pursuing AVP/CP training.

Rui Zhe

Rui was born in Beijing, China. She received multiple academic honors as a medical and Ph.D. student at Beijing Medical University and somehow managed to squeeze in an internal medicine residency. Following completion of her training, she came to Johns Hopkins where she has spent time as a postdoctoral fellow and research associate. Her work has clarified the role of the FGF receptor and its ligand in leukemogenesis, leading to publications in several prestigious journals. In her free time, Rui enjoys cooking, hiking and spending time with her family. She is interested in AVP/CP training.

News from the Fellowship office

Recruiting fellows: For the first time, our Department will have a booth at the annual USCAP Fellowship Fair for Pathologists-in-Training. The Fair will be held at the Annual Meeting in Denver on Sunday, March 2, from 5:00 - 7:00 p.m. in the Four Seasons Ballroom at the Colorado Convention Center.

Please contact Dr. David Berman or Terry Aman if you would like more information about Pathology’s representation at the Fellowship Fair.
Spotlight: The Division of Cardiovascular Pathology

reperfusion injury and diabetic cardiovascular disease, and our faculty are also interested in immune-mediated cardiovascular disease. The Division collaborates extensively with faculty in other departments, notably the Division of Cardiology in the Department of Medicine, in their effort to develop stem cell therapies for the treatment of patients with endstage heart failure, and as consultants in other projects involving histologic evaluation of the myocardium in animal models of disease.

Research

Basic cardiovascular research is directed by three faculty working on the sixth floor of the Ross Building, Dr. Halushka, Baldwin and Steenbergen. In addition, clinical research derived from biopsy and autopsy material is also undertaken.

Dr. Steenbergen's research is primarily focused on ischemia/reperfusion injury. He began working in the area as a graduate student at the University of Pennsylvania, working on metabolic regulation in ischemic myocardium, and training for many years with Dr. Robert Jennings, Keith Reimer, and Donald Hackel at Duke. His research is on basic mechanisms of ischemia/reperfusion injury, and on endogenous protective mechanisms which can be activated to minimize or delay ischemic injury. It has become clear over the past 20 years, that there are endogenous protective mechanisms that can reduce the amount of cell death that occurs with a given duration of ischemia by up to 75%. The focus of Dr. Steenbergen's laboratory is the signaling pathways that are activated immediately, and how they confer the protective effect. Current research is targeted at the downstream mechanisms of protection, and the possible role of mitochondria in these mechanisms. A current concept of cell death during ischemia/reperfusion involves the opening of a large channel in the mitochondrial membrane, the mitochondrial permeability transition pore (mPTP), as a final event in cell death. Opening of the mPTP would rapidly dissipate the membrane potential, precluding ATP synthesis, and would allow release of ions and proteins from the matrix, including potentially calcium and activators of apoptosis, which would lead to cellular disintegration. This opens the possibility that a final common pathway of cardioprotection could be inhibition of the opening of the mPTP. How the cardioprotective signaling pathways accomplish this remains to be determined. Since ischemic heart disease is the number one cause of mortality in the United States today, and since infarct size is a major determinant of outcome in patients with a myocardial infarction, better understanding of the mechanisms of lethal ischemic injury is likely to lead to better strategies for treating patients with acute coronary syndromes.

In addition to research on basic mechanisms of cell injury, Dr. Steenbergen has also been involved as a collaborator in studies of stem cell engraftment into the myocardium in models of myocardial infarction and in normal myocardium. These studies have been performed in the Department of Medicine, Cardiology Division. At the present time, stem cell therapy is the most promising option for treating patients who have already had one or more myocardial infarcts and are in heart failure. The utility of this therapy is limited at the present time, in large part because of the poor survival of the injected stem cells. Don't worry, these projects have exclusively involved adult stem cells, either mesenchymal stem cells or cardiac derived stem cells. In contrast to what was common dogma just a few years ago, it is now clear that there are stem cells in adult myocardium, which can be induced to proliferate in culture, and which can be injected into patients. Stem cells can be obtained from endomyocardial biopsies from patients with heart failure, expanded in culture, and potentially injected several weeks later into the same patient to avoid rejection. This is an exciting, and rapidly evolving field that is likely to have major clinical impact over the next decade.

Dr. Halushka started his scientific career in genetics at Case Western Reserve University, working in the laboratory of Dr. Arvind Khurana. This initial work described the rates of genetic variation in candidate genes for hypertension. After training in Anatomic Pathology at Johns Hopkins, Dr. Halushka shifted his focus to working directly with diseased human tissues. Dr. Halushka's research is now focused on diabetic vascular disease. Dr. Halushka has taken two approaches to understanding the cause of strokes, myocardial infarctions, and renal failure in diabetic subjects. The first was to develop a novel set of vascular tissue microarrays (TMA) containing over 1,500 tissues collected from 100 adult autopsies in patients with and without diabetes. From this collection, his laboratory has been investigating the expression of a wide range of proteins related to advanced glycation end products (AGEs) and their receptors in a global distribution of blood vessels. The initial steps of this project have been to validate the role of immunohistochemistry in autopsy tissues and to validate TMAs for vascular disease study. A second project has been initiated to investigate the role of diabetes in vascular memory using primary human endothelial cell cultures. This project will determine whether high glucose or AGEs result in continued endothelial cell dysfunction, even after a return to normal glucose levels. The goal of this study is to identify pathways that need to be targeted to improve endothelial function in diabetic subjects. Wink Baldwin studies components of innate immunity (complement, macrophages and platelets) that modulate adaptive immunity (T and B lymphocytes, and antibodies) to heart transplants. His research training began in the MIT program at the University of Rochester with Dr. Nicholas Cohen on phagocyte aspects of immunity. His interests in transplantation were enhanced during his residency in Pathology at the Peter Bent Brigham Hospital, where Dr. Darrin Pathology (Pathology), Merrill (Nephrology), and Murray (Surgery), who were members of the team that performed the first successful renal transplant, were still active. A fellowship at The Academic Hospital in Leiden, The Netherlands, where Eurotransplant is centered, brought him experience in tissue typing and complement. His research in these areas continued to evolve as a faculty member at Duke and now at Hopkins. He collaborates extensively with Dr. Barbara Wasowska, Craig Morrell (graduate of our Pathology Employee Appreciation Picnic

After many months of careful behind-the-scenes planning, the Pathology Department held its annual Employee Appreciation Picnic on Sunday, September 16, 2007, at Camden’s Ruth Villa, a private waterfront park in Middle River, Maryland. A chilly morning gave way to a sunny balmy afternoon. Overlooking the sparkling waters of the Patuxent River, the picnic was underscored by beautiful scenery. Steamed crabs, corn on the cob, crab soup, and ice cream were among the menu items. A disc jockey provided music, and volleyball and ultimate Frisbee games were played in the park. This year’s picnic had special activities for younger children.

Approximately 1,200 Pathology employees and family members attended this summer’s Appreciation Picnic. Dr. Jackson would like to again thank Rosemary Hines, Susan Carreira, and Stacey Morgan for their hard work in making the day a special and memorable one for employees and their families.

The Herman and Gertrude Silver Award

J. Brooke Jackson, M.D., M.B.A. received the Herman and Gertrude Silver Award from Children’s Hospital of Philadelphia for his work in presenting the transmission of HIV from infected mothers to their newborn babies. This award honors individuals who have made significant contributions in the field of pediatric HIV and AIDS. In conjunction with this award, Dr. Jackson delivered a lecture titled “Advances in the Prevention of HIV Perinatal Transmission.”

Physician-in-Training Award

Janice Taisea, M.D., M.Sc. won the Physician-in-Training Award for the best resident/fellow oral abstract presentation titled “Insulin resistance and dyslipidemia: The role of fat in type 2 diabetes among African-Americans” at the 2007 American Society for Dermatology Annual Meeting. Her work has also been accepted for publication in Clinical Cancer Research.

Ramzi Cotran Young Investigator Award

Averyan Mastra, M.D., B.S. will receive the 2008 Ramzi Cotran Young Investigator Award from the United States and Canadian Academy of Pathology at their 97th Annual Meeting in Denver, Colorado. The Ramzi Cotran Young Investigator Award recognizes a body of work, by a USCAP member under the age of 45, which has contributed significantly to the diagnosis and understanding of human disease.

Translational Research Award

Xing Fan’s abstract received a Translational Research Award at the Society of Neuro-Oncology Annual Meeting on November 17, 2007. Dr Fan received a plaque and $2,000 award.

International Skeletal Society

Elsieard McCarthy, M.D. has been awarded the Medal of the International Skeletal Society. This award was presented in Budapest on October 8, 2007.

The 2007 Fred Stewart and 2007 Distinguished Pathologist Awards

Peter Burguer, M.D. received the 2007 Fred Stewart Award from Memorial Sloan-Kettering Cancer Center, and the 2007 Distinguished Pathologist Award from the United States and Canadian Academy of Pathology. The Distinguished Pathologist Award is presented to an individual who is recognized as making major contributions to pathology over the years.

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The new Multi-Disciplinary Pancreatic Cancer Clinic Web site has been a big success. Launched last spring, it provides patients and families quick access to important information such as services provided by the clinic, which patients are appropriate candidates for the clinic, and how to reach clinic members. These funds will support innovative research projects by junior investigators.

In terms of our educational programs, 11 new excellent pathology residents started this past July and 6 new graduate students started in the Pathobiology program in September. A number of our faculty have been involved in the School of Medicine’s plan to redesign the medical school curriculum which will be implemented in 2009. It is envisioned that Pathology will play a major role in all four years, not just the predominant role it now plays in year 2.

Despite the notable achievements this past year, the current academic year will bring new challenges including another full Joint Commission survey of the laboratories this fall, more stringent ACGME reviews of our fellowship programs, possible further reductions in NIH funding for new grant awards, government reductions in pathology provider reimbursement, and increasing documentation requirements in a number of regulated areas. Given the talent and hard work of our faculty, trainees, and staff, I am confident we will deal with these challenges successfully as well.

Pathology Research Expenditures Growth

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Annual Increase: 3.6% to 4.5%

The Pathology Department also recently piloted an online training system using Moodle, a free, open source course management system. Peggy Coulter implemented a training program for coordinators scheduled to work with international laboratory sites under the SMILE contract. Moodle has proven to be flexible and powerful, and we are excited about extending this service for other distance and on-site learning opportunities.

Finally, the pathology Web site is currently being developed with a new look. The site has been designed to improve the service provided to our thousands of daily visitors. In addition to a new look, the site will provide functionality such as podcasting, RSS feeds and more streaming video. Pathology staff and house resources are also getting a new area, to better find your favorite tools. Coming soon to your browser…
Calendar
March 1-7, 2008
United States and Canadian Academy of Pathology
97th Annual Meeting
Colorado Convention Center, Denver, Colorado
March 2, 2008
United States and Canadian Academy of Pathology
Fellowship Fair - Four Seasons Ballroom
Colorado Convention Center, Denver, Colorado
March 3, 2008
Johns Hopkins Pathology Alumni Reception
United States and Canadian Academy of Pathology
Hyatt Regency Denver at Colorado Convention Center - HI Centennial R.
Denver, Colorado
April 17, 2008
Pathology Young Investigators’ Day 2008
The Johns Hopkins Medical Institutions Campus
Baltimore, Maryland
April 16-19, 2008
9th Annual Mastering the Challenges of Cytopathology
Tremont Plaza Hotel, Baltimore, Maryland
Home Study - February-April 2008
Course - Tremont Grand Conference Center
Baltimore, Maryland - April 16-18, 2008
Independent Slide Review Day - April 19, 2008
May 16, 2008
Pathology Awards Dinner
The Belvedere, Baltimore, Maryland

Congratulations to the 9th Annual Pathology Young Investigators’ Day Awardees April 5, 2007

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

For Excellence in Basic Research
Jose Gonzalez, Ph.D.
Paul Esteve, M.D., Ph.D.
Yen-Chun Liu, M.D.
Aeyyon Kim, B.A.
Kamini Misra, B.A.
Davina Ligon, B.S.
Abdulaziz Mohamoud, Ph.D.
Kedar Naraya, B.A.
Noriko Okuma, Ph.D.

For Excellence in Clinical Research
Dengfei Cao, M.D., Ph.D.
Winnie Wang, M.D., Ph.D.
Tamara S. Phyo, B.S.
Basmal Soliman Muhammad, M.D.
Ziad Jabboury, M.D., Ph.D.
Shao-Lung Liang, Ph.D.
Adeboyi O. Oniukoya, M.D.
Janis Marie Taube, M.D., M.Sc.
Julie Wu, M.D.

For Excellence in Translational Research
EK. Bar, Ph.D.
Yu Li, B.A.
Bruce Huang, B.A.
Xiaohong He, Ph.D.
Jesse Rosoly, B.S.
Shane Tsui Lau Mirzabadi, M.D., M.S.

Director's Corner
J. Brooks Jackson, M.D., M.B.A.

The past academic fiscal year has witnessed another year of growth for Pathology in a number of areas.

The number of laboratory tests performed by Johns Hopkins Hospital Pathology Laboratory was reflected in RVUs increased by 5.6% and outreach RVUs increased by 2.9%. Together with good cost control measures Pathology exceeded its budgeted contribution margin by more than $180,000 while meeting the care needs of our patients. Congratulations are in order for the Hospital Pathology laboratory staff, lab management and directors for working to achieve this favorable balance which is critical to the funding of the new critical care towers that are due to open in January 2011 and the capital equipment needed of Pathology. The workload in Pathology has also increased at the Bayview Hospital and Howard County Hospital increasing by 6.7% and 3.0%, respectively. In the area of patient safety, additional initiatives have been implemented with improvements in all patient safety dashboard goals to date. Continuous improvement in patient safety is an ongoing process which we believe will lead to better patient outcomes and more cost effective care.

Spotlight: The Division of Cardiovascular Pathology

In 2003, the Department of Pathology recognized the need to enhance its expertise in the area of cardiovascular disease and formed a stand alone Division of Cardiovascular Pathology. Previously, the cardiovascular service was within the Cardiopulmonary Division. The Division of Cardiovascular Pathology is thus a new, albeit small division, with aspirations for future expansion and development. The Division currently has three primary faculty whose activities include clinical diagnostic services, research and teaching. Primary faculty include Charles Stemberger, M.D., Ph.D. (Director), Marc Halushka, M.D., Ph.D. and Grover Hutchins, M.D. Secondary pathology faculty in the Division include Ralph Hruban, M.D., a former director of the Cardiopulmonary Division, and William Baldwin III, M.D., Ph.D. The Division is responsible for the diagnostic interpretation of endomyocardial biopsies obtained from heart transplant patients and from cardiology patients with unexplained heart failure or arrhythmias, and for the evaluation of explanted hearts from transplant recipients. There are approximately twenty heart transplants performed at Johns Hopkins each year, and these patients typically undergo endomyocardial biopsy throughout their life since they are still on better method for assessing cardiac allograft rejection. The Division also receives consult cases from around the country. Faculty meet with the heart transplant and heart failure cardiology teams twice a week to review biopsies (see photo on page 4).

In addition to their clinical responsibilities, the Division is actively involved in teaching, research, and the autopsy service. Heart disease is the most common cause of death in the United States and a thorough cardiovascular evaluation is an essential component of a complete autopsy. Dr. Hutchins was formerly the director of the autopsy service and is still prominent in its operation. Dr. Halushka is also attending on the autopsy service. Members of the Division participate in teaching medical students, pathology and medicine residents, graduate students and cardiology fellows. Members of the Division are also actively involved in basic and applied research on cardiovascular disease. Research focuses on several aspects of cardiovascular disease, ischemia-