

Director's Corner

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

As of Spring 2004, Johns Hopkins Pathology has continued to be successful in a number of areas, but is also facing new challenges. On the positive side, we were successful in recruiting eight outstanding residents in the MATCH for next year and five top predoctoral students



Dr. J. Brooks Jackson

for the Pathobiology Graduate Training Program (see page 8 & 9). For the government fiscal year 2003 the departments' NIH grant awards increased 16% over 2002 from \$23,717,144 to \$27,418,891 placing us third in the country among pathology departments and NIH funding. Based on expenses through April 2004, departmental research funded expense is projected to increase by 8-9% over last year. Over 130 scientific papers have been published from July 2003 to April 2004 with Pathology faculty, housestaff, or students as first or last author. Hospital pathology test volume is running 5% over last year, and hospital pathology expenses are currently under the volume adjusted hospital budget by 3.5%. On the University ledger side, departmental reserves are expected to increase slightly for this fiscal year due to increased grant funding, higher profee income,

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Microbiology Division in Highlight: Emerging Pathogens Meet Emerging Technologies

Meeting the continuous challenge of well-recognized and emerging pathogens in the setting of a shrinking workforce and burgeoning technologies is the modus operandi for clinical microbiology laboratories worldwide. The Johns Hopkins Medical Microbiology Division is no exception. In the past several years, the world has seen the emergence of several new respiratory viruses including the SARS coronavirus (SARS co-V), metapneumovirus, and avian influenza strains (H5N1). Vector-borne and parasitic diseases, *Mycobacterium tuberculosis*, the viral hepatitis and the human immunodeficiency viruses, cause enormous morbidity and mortality worldwide, and little progress has been made in controlling their spread. In addition, laboratories have had to face the threat of bioterrorism, including the reality of the East Coast anthrax outbreak. Our Division had a leading role in Operation Orange plan-

ning for JHH and the Department. No less important are the challenges of resistant endemic organisms, such as methicillin resistant staphylococci (MRSA), staphylococci with reduced susceptibility to vancomycin, and multidrug resistant gram negative bacilli such as *Acinetobacter* sp. As Johns Hopkins Medicine (JHM) has expanded, Microbiology Division efforts have also increased to provide microbiologic testing for Howard County General Hospital and JHM units and to serve as the primary reference laboratory for Johns Hopkins Bayview Medical Center. Finally, as the population ages and the numbers of immunocompromised hosts expand, previously innocuous, saprophytic organisms, such as molds, are now causing devastating infections.

What are we doing to meet these challenges? Are we up to the task? One of the Microbiology Division's strengths is the diverse

knowledge and range of expertise of our faculty. All major areas of infectious diseases diagnostics are well-covered by this group. This is reflected in the extensive test menu and volume of testing offered in the division (460,000 assays annually!); the educational programs provided within the institution and at regional, national and international meetings; and the on-going basic, translational and clinical research activities. Our administrative team, Ame Maters, Anita Borek and Diane Flayhart, maintain 24/7 operations providing excellent service to JHH and JHM patients. They train new generations of technologists and pathologists alike, troubleshoot assays and instruments and perform a multitude of other tasks. Dr. Patricia Charache keeps everyone in touch with institutional issues and the latest regulatory guidelines. The following are highlights from the various sections of the Medical Microbiology Division.

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Retirement Announcement for Risa B. Mann, M.D. Professor of Pathology and Oncology

Dr. Risa Mann, Professor of Pathology and Oncology, has announced her retirement, effective June 30, 2004. Dr. Mann has been a member of the Johns Hopkins Medical Community for 36 years having obtained her medical degree as an AOA graduate of the Johns Hopkins five year medical program in 1971. She completed four years of training in Anatomic Pathology at Hopkins, serving as Chief Resident in 1974-75. After a two year fellowship in Hematopathology at NIH, she returned to join the faculty in 1977, and has been an active member of the staff in Surgical Pathology for 27 years. Dr. Mann has taught medical students in the Year Two course in Pathology over the years and is known for her introduction of Dorothy Reed to all second year Hopkins medical students, making them aware of the fact that a woman, Hopkins Pathologist was involved in the recognition of the malignant cell in Hodgkin's Disease, the Reed Sternberg Cell in the early 1900's. Dr. Mann was named Professor of Pathology and Oncology in 1995.

Dr. Mann is a nationally recognized hematopathologist, having served with distinction on the National Pathology Panel for Lymphoma Clinical Studies and on the Hodgkin's Committee for the World Health Organization (WHO) Handbook for the Histological and Cytological typing of Neoplastic Diseases of the Hematopoietic and Lymphoid tissues. She was a charter member and served on the executive committee of the Society for Hematopathology. She is also a member of the Arthur Purdy Stout Society of Surgical Pathologists.

Dr. Mann's major research efforts have been in the field of Hematopathology, where she has conducted numerous studies of the relationship of the Epstein Barr virus with Hodgkin's Disease (Lymphoma). She also has been active in many studies of the classification of Non Hodgkin's Lymphomas. Dr. Mann gave the School of Medicine's Dean's Lecture in the year 2000 on Malignant Lymphomas: Lessons from History, Pathology, and Virology. She has



Dr. Risa B. Mann | rmann@jhmi.edu

been active in the educational activities of the United States and Canadian Academy of Pathology where she served on the Education Committee and chaired many scientific sessions and Evening Educational Hematopathology Slide conferences.

Within the Department of Pathology Dr. Mann served as Director of the Residency Training Program for 17 years, mentoring large numbers of residents and fellows as they pursued their careers in Pathology. She also was active in the Program Director's Subcommittee of the Association of Pathology Chairs and served as co-chair of the departmental credentialing committee. Over the years, Dr. Mann, the mother of two now grown children, has served as a role model for young women in medicine who were trying to combine an academic career with a full family life.

She has received numerous honors including the Faculty Teaching Award in pathology, was named one of Maryland's top 100 women in 1997 and was listed as one of the "Top Doc's" in Pathology in Baltimore in 2002. Dr. Mann has served on the Johns Hopkins Professorial Promotions Committee, the Woman's Leadership Council, numerous Departmental Chairman search Committees and the Committee on House Staff and Post Doctoral Programs. ■

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and greater gift giving. On the regulatory side the department had a very successful JCAHO inspection a few months ago, and Pathology faculty had the best billing compliance record of all the clinical departments in the Johns Hopkins University Clinical Practice Association.

As of May 2004, Pathology has been allocated 8,000 sq ft on the second floor of the planned Critical Care Tower for the Blood Bank and Neuropathology with an additional 14,000 sq ft in the basement of Critical Care Tower and Nelson building for the new Core Lab and Autopsy services. Approximately, 13,500 sq ft of space has been allocated to Pathology for cancer research in the Cancer Research Building II slated to open in the Fall of 2005.

These are all positive accomplishments, but there are also new challenges. NIH extramural funding is expected to increase by only 2.6% this coming year so that grant funding will be more competitive. This will mean that faculty will likely need to submit more grant applications and resubmissions to be successfully funded.

The need to raise the \$1.2 billion to build the new clinical and research buildings will continue to put financial pressure on the Hospital and Departments over the next few years. Increasing revenues, operating more efficiently, and maintaining reserves will be necessary.

Increased scrutiny of effort reporting by the federal government will mean that faculty will need to pay particular attention to making sure they are in compliance with these requirements. The School of Medicine leadership is very aware of the difficulties these requirements pose and efforts are underway to change the effort reporting system at the national level so that it is simpler and more realistic.

Continuing to improve patient safety is another major priority. For Pathology, improving turn around time of testing, ensuring correct patient identification at time of phlebotomy, sample labeling, and test reporting will be major areas of focus in the coming year.

Despite these challenges, it is important to realize that by almost any measure Johns Hopkins Pathology is doing wonderfully thanks in large part to all employees in our Department. Given the talent and desire to be the best, I have no doubt that we will be successful in meeting future challenges as well. ■

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Clinical Virology

Alex Valsamakis, M.D., Ph.D., director of clinical virology and molecular microbiology, notes that the greatest challenges faced by the Clinical Virology Laboratory are the expanding population of patients with diverse forms of immune deficiency and the evolution of respiratory viruses with pandemic capacity. To address both problems, the laboratory has built on an already solid foundation of diagnostic tests. The laboratory has recently discontinued pp65 antigenemia detection in favor of viral load testing for cytomegalovirus, a major pathogen in patients with T cell dysfunction. This has resulted in improved diagnosis, treatment, therapeutic monitoring and detection of antiviral-resistant strains. In response to emerging respiratory viruses, we have greatly expanded our panel of rapid tests for common respiratory viruses. In the past, rapid diagnostics were offered for influenza A and respiratory syncytial virus. Our new panel detects five additional viruses, allowing us to reassure clinicians that patients presenting with respiratory symptoms are infected with "run of the mill" viruses rather than exotic, epidemiologically worrisome ones. While nucleic acid detection methods have gained an important foothold in this field, we continue to offer culture which should theoretically allow us to detect an uncommon or newly emerged virus.

Molecular Microbiology

Nucleic acid amplification technologies have revolutionized the field of virus detection. The availability of culture systems is no longer a barrier to virus identification, as long as snippets of genome sequence are known. The original mission of the laboratory was to offer a diversity of tests that would benefit a broad range of patients. In the past five years, the test menu has more than doubled from 10 to 21 assays, and the growth in volume over the past three years has exceeded 20% per year. Automated nucleic acid extraction and real time PCR (simultaneous amplification and detection of nucleic acid) have been implemented to improve throughput and decrease turnaround time. Research in molecular virology is focused on the development and utility of molecular assays for hepatitis viruses and viruses that infect immuno-

compromised patients. The laboratory has become nationally recognized for its excellence in verification of molecular infectious disease assays. As a result, we have become a beta test site for numerous products and we have participated in FDA clinical trials for HCV quantitative tests (Bayer), high risk HPV assays (Digene), and blood screening (HIV/HCV/HBV) nucleic acid tests (Gen-Probe).

Parallel research by John Ticehurst, M.D., links long-standing interests in hepatitis viruses with recent clinical-virology and molecular activities: 5' non-translated region (NTR) structure and function among picornaviruses and HCV, and characterization of hepatitis E virus (HEV) infections. Analysis of enteroviral and parechoviral sequences is based on JHH clinical isolates, the Division's original PCR-based assays, and collaboration with CDC. His somewhat analogous effort with Medicine's Viral Hepatitis Center is identification of temporally-associated nucleotide changes in 5' NTR and Core sequences that represent incident HCV infections. HEV has emerged as the predominant worldwide cause of sporadic and epidemic acute hepatitis, but has some poorly understood epidemiologic characteristics: JHB-SPH epidemiologists, with Dr. Ticehurst, are conducting the first investigation of HEV infections in Bangladesh; it will include nucleotide-sequence characterization of local HEV strains.

Bacteriology

Stacks of plates on laboratory benches attest to the volume of cultures from all body sites, cultures of environmental samples, and identification and susceptibility testing of bacteria that take place 24 hours a day in the bacteriology section. Improvements in existing instrumentation and a pre-marketing evaluation of the BD Phoenix (BD Biosciences, Sparks, MD), the latest in new instruments that combine fluorescence technologies for more rapid antimicrobial identification and susceptibility testing, are in progress. Molecular technologies, likewise, will be making a debut in this section as

mecA gene detection using the Roche Light Cycler assay will soon be available to confirm the often difficult to detect methicillin resistance among staphylococci. Laboratories cur-



rently must employ multiple phenotypic methods for MRSA detection. Under the direction of Karen Carroll, M.D. and James Dick, Ph.D., an ad-hoc, multidisciplinary working group has been formed to study in more detail the increasing incidence of serious community acquired staphylococcal infections. Dr. Dick continues to develop procedures and evaluate new software for cell wall fatty acid analysis using GLC. JHH has one of the few diagnostic labs to have such expertise.

Drs. Carroll and Ticehurst have collaborated on the diagnostics component of the Research Center for Excellence Grant for Bioterrorism, along with Richard Rothman, M.D. in the Department of Emergency Medicine and Charlotte Gaydos, PhD in Infectious Diseases. The focus of this grant component is evaluation of real-time molecular assays for select agent pathogen detection from patient clinical samples. This has led to industry collaborations examining new technologies that may have implications for non-select agent diagnostics.

Molecular Epidemiology

Hospital acquired infections continue to increase as patients become more immunocompromised. This section of the laboratory, co-directed by Karen Carroll, M.D and William Merz, Ph.D., supports molecular strain typing of pathogens implicated in outbreaks of infection. This section works closely with Hospital

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Epidemiology and Infection Control. Recently, we assisted with SARS control plans, selection and ultimate implementation of an infection control computer program, TheraDoc, and control of a multi-drug resistant *Acinetobacter* outbreak. Ribotyping (Qualicon) and rep-PCR with microfluidics chip detection of PCR products to create bacterial fingerprints (Bacterial BarCodes, Inc, Houston, TX) have been evaluated. The latter is a continued area of translational research for this section. Future plans include an examination of other PCR technologies for strain typing.

Mycobacteriology

The Mycobacteriology Laboratory performs assays including direct TB testing, culture, susceptibility for *Mycobacterium tuberculosis* and direct smear evaluations. In the next several months, plans include expanding testing capability to include susceptibility testing on non-tuberculous mycobacteria, evaluation of 16SrRNA sequencing technology as a more rapid means of mycobacteria identification, and evaluation and implementation of an alternative automated system to detect mycobacteria in clinical samples. Ongoing clinical research based projects include investigation of rapid susceptibility testing of mycobacteria using quantitation of mycolic acids by HPLC and development of an enriched media to enhance the growth of mycobacteria.

Dr. Nicole Parrish's basic research focus, in collaboration with James Dick, M.D., is aimed at characterization of the mechanism of action of a novel class of antimycobacterial compounds under development at Johns Hopkins, which have demonstrated potent *in vitro* efficacy against pathogenic mycobacteria, including multi-drug resistant strains. A variety of methods lead this approach including, proteomics, protein and lipid biochemistry as well as current molecular techniques.

Mycology

The Mycology Laboratory analyzes cultures for yeast and filamentous fungi as well as rapid testing for *Cryptococcus neoformans*. Susceptibility testing for selected fungi is performed as well. This area of the lab, under the direction of William Merz, Ph.D., continues to participate in National surveillance

studies on resistant yeast and other clinical research. "Filamentous rounds" with Dr. Merz is a highlight of the pathology residents' microbiology rotation. Dr. Merz's strong commitment to education is reflected in his frequent attendance at CP rounds, his co-direction of the Pathobiology Graduate Program and his formal teaching in the Bloomberg School of Public Health. He has taught many "budding" mycologists.

Parasitology and Vector Borne Diseases

The Parasitology Laboratory analyzes stool for ova and parasites in addition to analyzing blood for infections such as malaria. Such routine testing will always have a place in parasitology diagnosis. However, the availability of genomic data, the high degrees of sensitivity for molecular testing, and the ability to automate will push forward molecular diagnostics nationally. Hopkins Microbiology intends to by implementing a diverse menu of molecular methods for the detection of enteric parasitic pathogens in a multiplexed, real-time format that will supplement, perhaps eventually supplant, the routine screen for ova and parasites.

Likewise, the changing ecology of our natural world and the increasing expansion of human residences into previously pristine environments have allowed the emergence of previously unrecognized zoonotic vector-borne infections. Such infections include Lyme disease and a cadre of pathogens that are also transmitted by deer ticks. Steve Dumler, M.D. was a member of the team that in 1990 discovered a new tick-borne disease of humans, now called human granulocytic anaplasmosis, or HGA for short. The infection is caused by a rickettsia-like obligate intracellular bacterium called *Anaplasma phagocytophilum*. The biological adaptations of it and the related *Ehrlichia chaffeensis* that allow intracellular survival and disease development in humans are the major focus of the Dumler research lab, continuously funded by the National Institutes of Allergy and Infectious Diseases since his arrival in 1996. The spectrum of research activities includes investigation of the relationship between accruing immunity and disease manifestations to understanding how secreted bacterial proteins gain access to neutrophil heterochromatin and alter neutrophil function.

Another venture of the Dumler lab is the

establishment of a center for the study of Lyme disease. First initiated during the "human subject-less" summer of 2001, the Lyme Disease Center has enrolled nearly 100 suspected patients for which complete clinical, laboratory, and microbiological data has been obtained — including isolates of *B. burgdorferi*. With significant contributions from the medical entomology collaborators in the Bloomberg School of Public Health, the Lyme Disease Center has accrued data proving that the genotypic spectrum of *B. burgdorferi* spirochetes in local white-footed mouse populations and in Maryland patients with Lyme disease is fundamentally unique from other regions of the U.S. and world-wide. In fact, preliminary data suggest that the spectrum of disease is also different, implying a relationship between disease and our unique microbiological exposure. Regardless, the stage is now set for more intensive investigation conducted in Medical Microbiology by a team with a multi-disciplinary approach including clinical medicine (Greenspring Station), medical entomology (JHU BSPH), molecular epidemiology (JHU SOM), and modern clinical and basic science microbiology (JHU SOM). This exciting new venture promises to enhance the fundamental understanding of the pathobiology of the disease that will foster better clinical diagnosis and management of Lyme disease.

Education

The Microbiology Division has a strong commitment to education on many levels. The entire month of October is dedicated to Medical Student teaching. Several faculty have encouraged the formation of the Pathology Interest Group spear-headed by a second year medical student. We will continue our strong commitments to support of the Infectious Diseases Fellowship Training program through "plate rounds," formal teaching and individual consultation. The ACGME accredited Medical Microbiology program is fortunate to have Hasan Bhally, M.D. as the clinical fellow this year. This program received excellent comments on the recent internal ACGME review. Exciting to us is the unprecedented number of applicants who applied for 2005. Once again the Division will have a noticeable presence at several international and national meetings including the American Society for Microbiology and the

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Microbiology

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Pan American Society for Clinical Virology, where several faculty, fellows and technologists will be presenting workshops and invited lectures.

A key issue in the ability of the Medical Microbiology discipline to contribute to patient care rests with our ability to educate clinical faculty and resident staff in the pre- and post-analytical understanding of when to use microbiologic information and how to obtain it. The emergence of new pathogens and new technologies, and the development of complex patterns of antimicrobial resistance have resulted in the return to physicians of critical but unfamiliar information that can be misapplied or ignored. The Medical Microbiology group is exploring strategies designed to assist the clinician in understanding when and how to make specific microbial diagnoses, as well as those designed to improve communication, and assist in interpretation of the information being provided.

Quality Assurance and Improvement

Great progress has been made in identifying processes that will enhance the ability to improve our efficiency as a hospital unit. Our Divisional QA program was highlighted by the JCAHO inspectors as one that may qualify for a prestigious national award. To ensure safety for employees and others in the Meyer basement, a capital plan has been submitted for renovating the BSL3 area (the Mycobacteriology Laboratory) to meet currently recommended standards. This will be essential if we want to be well prepared for another bioterrorism event or the next emerging pathogen. The TheraDoc software program will provide much needed database support for data mining, epidemiological assessments, and QA. As mentioned above in the section highlights, automation will propel us toward the lab of the future, allow us to streamline algorithms, reduce turnaround times and hopefully improve patient care.

In summary, following a site visit to the laboratory, a recent group so aptly captured the essence of our Microbiology Division by writing: "While its physical plant is old and crumbling, my sense is that people and techniques are the highest caliber. The vast majority of hospital labs will be less sophisticated than JHU." ■

Primary Faculty Changes - Since October 2003

New Faculty

Ansari-Lari, M. Ali, M.D., Ph.D.	Instructor	Surgical Pathology
Bagnasco, Serena M., M.D.	Associate Professor	Genitourinary
Batista, Denise A.S., Ph.D.	Assistant	Molecular Pathology
Antelman, Gretchen, M.P.H.	Res. Associate	Microbiology
Cai, Mian, Ph.D.	Res. Associate	Microbiology
Dilworth, H. Parry, M.D.	Assistant	G. I. Pathology
Fijalkowska, Iwona, Ph.D.	Res. Associate	Pulmonary Pathology
Gustafson, Karen S., M.D., Ph.D.	Assistant Professor	Cytopathology
Jarati, Hayan, M.D.	Assistant	Surgical Pathology
Klein, Walter M., M.D.	Assistant	Surgical Pathology
Kulesza, Piotr, M.D., Ph.D.	Instructor	Cytopathology
Movahedi-Lanrani, Saied, M.D.	Assistant	Gynecologic Pathology
Nichols, Lynette, M.D.	Assistant	Surgical Pathology
Rassaei, Negar, M.D.	Assistant	Diagnostic Immunology
Vang, Russell, M.D.	Assistant Professor	Gynecologic Pathology

Departures

Alli, Patricia, M.D.	Assistant Professor	Quest Diagnostics, Baltimore, MD
Berg, Karin, M.D.	Assistant Professor	Laboratory Corporation of America, Research Triangle Park, NC
Lujan, Giovanni, M.D.	Assistant	Metropex Pathology Partners, Dallas, TX
Rodriguez, E. Rene, M.D.	Associate Professor	Cleveland Clinic, Cleveland, OH
Srodon, Monica, M.D.	Assistant	Cytopathology Fellow, JHM
Wettstein, Lamont, M.D.	Assistant	Bay Area Hospital, Coos Bay, OR

Promotions

Baldwin, William M., M.D., Ph.D.	Professor	Immunology
Barker, Norman J., B.S.	Associate Professor	Informatics
Clarke, William, Ph.D.	Assistant Professor	Chemistry
Gabrielson, Edward W., M.D.	Professor	Molecular Pathology
Goggins, Michael, M.D.	Associate Professor	G. I. Pathology
Hamad, Abdel-Ramin A., D.V.M., Ph.D.	Assistant Professor	Immunology
Iacobuzio-Donahue, Christine, M.D., Ph.D.	Assist Professor	G. I. Pathology
Lee, Maria Teresa, M.D.	Instructor	Diagnostic Immunology
Li, Jinong, Ph.D.	Assistant Professor	Chemistry
Shih, Je Ming, M.D., Ph.D.	Associate Professor	Gynecologic Pathology
Studeman, Kimberley A., M.D.	Instructor	Surgical Pathology, Bayview
Thupari, Jagan, M.D.	Assistant Professor	Molecular Pathology
Tuder, Rubin M., M.D.	Professor	Pulmonary Pathology

FUNDING OUR FUTURE

Our endowed funds and fellowships continue to grow, and to provide significant support for the training of a number of talented young physician scientists. The importance of the financial support provided by these endowed funds and fellowships will only grow as the Department faces the financial constraints outlined by Dr. Jackson (page 1). Our funds and fellowships do more, however, than simply help with the finances. Our funds and fellowships serve to honor some of the treasured icons of the Department, and to remind our young trainees of their rich heritage. Our funds and fellowships also provide a wonderful mechanism for members of the Department and for alumni to express their gratitude to the Department. Please consider supporting these important activities.

William Welch Award

The William Welch Award has been established to acknowledge the Outstanding Achievement in Pathology by a second year medical student. This award not only recognizes outstanding academic performance in the pathology course, but it also serves to encourage our best students to enter the field.

We are pleased to announce that the first recipient of the William Welch Award is Amy Huberman. Amy received this award at the Annual Pathology Awards dinner held on May 14, 2004.

The Joseph Eggleston Fund in Surgical Pathology

Joe Eggleston was one of the true giants in the field of surgical pathology. His dedication to teaching and diagnostic excellence helped establish Hopkins as a leading center for surgical pathology. We are pleased to



Joseph C. Eggleston

announce that Dr. Dengfeng Cao is the third recipient of this award. This award recognizes Dr. Cao's excellence in diagnostic surgical pathology and his cutting edge research in oncologic surgical pathology.

The John H. Yardley Fellowship in Gastrointestinal Pathology

The John H. Yardley Fellowship in Gastrointestinal Pathology honors "the father of modern gastrointestinal pathology," and serves to promote the research activities and clinical training of promising pathologists pursuing advanced training in gastrointestinal/liver pathology. Importantly, this endowment helps assure the long-term health of the longest standing fellowship in the department. Dr. Guang-Yu Yang is the Yardley fellow for the 2004-2005 academic year. Dr. Yang came to Hopkins from New York University where he was the chief resident in pathology. In the tradition of previous gastrointestinal/liver pathology fellows, Dr. Yang has already begun significant bench research in addition to his diagnostic duties.

The Yener S. Erozan Fellowship in Cytopathology

Dr. Erozan is one of the true giants in the field of cytopathology and a much-loved member of our faculty. The Yener S. Erozan Fellowship in Cytopathology continues to support promising pathologists pursuing advanced training in cytopathology in the Department. This endowment provides criti-

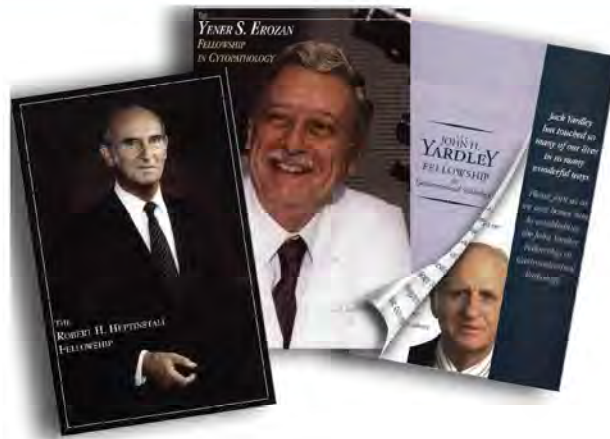
cal stability to the cytopathology fellowship Program as the division transitions to new leadership under Dr. Douglas Clark.

The Robert H. Heptinstall Fellowship

Heppy is well known to all of us and no words could adequately describe him. The campaign to endow the Robert H. Heptinstall Fellowship is still ongoing. The Robert H. Heptinstall Fellowship promotes research activities and clinical training of outstanding young pathologists pursuing careers in research.

We sincerely appreciate the significant support our alumni and faculty have provided for these endowments. It is important that we continue to grow these endowments and we ask you to consider supporting one or more of these funds and fellowships. We are enclosing a self-addressed return envelope to facilitate your contribution. For those of you considering a bequest or another mechanism of giving, please contact Dr. Ralph H. Hruban at 410-955-2163 or rhruban@jhmi.edu. If you would like to use a separate envelope, you may send your tax-deductible contributions payable to the Johns Hopkins University to:

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



New Grants and Contracts Awarded to Pathology Faculty Through May 5, 2004

<u>FACULTY MEMBER</u>	<u>AWARD TYPE</u>	<u>AGENCY</u>	<u>DATES</u>	<u>TOTAL FUNDING</u>
Bagnasco, Serena	R01 Grant	NIH/NIDDK	03/01/04-02/28/05	112,225
Berman, David	Grant	Prostate Cancer Foundation	01/01/04-12/31/04	100,000
Borchelt, David	R01 Grant	NIH/NINDS	01/01/04-12/31/07	1,455,988
Borchelt, David	R01 Grant	NIH/NINDS	05/01/04-04/30/08	1,361,136
Borowitz, Michael	Contract	Becton Dickinson	09/01/03-08/31/04	14,500
Carroll, Karen	Contract	BD Diagnostics Systems	03/11/04-06/30/04	22,530
Chan, Daniel	Contract	Roche Diagnostics	08/21/03-10/31/03	7,710
Chan, Daniel	Contract	DiaDexus, Inc.	01/01/04-08/31/04	59,509
Chan, Daniel	Subcontract	Eastern Virginia Medical Center	09/01/03-08/31/04	55,636
Clark, Douglas	Contract	TriPath Imaging	12/01/03-11/30/04	21,134
Dumler, Steven	Contract	Binax, Inc.	03/01/04-08/31/04	35,604
Eshleman, James	Grant	State of Maryland	01/01/04-12/31/05	145,000
Guay, Laura	Subcontract	Family Health International	08/01/03-02/29/04	284,995
Guay, Laura	Grant	EG Pediatric AIDS Foundation	01/01/03-12/31/04	432,070
Guay, Laura	Subcontract	UNC-Fogarty Training Program	06/01/03-05/31/04	32,725
Hamad, Abdel	R21 Grant	NIH/NIDDK	01/01/04-12/31/05	327,000
Iacobuzio-Donahue, Christine	Inst. Grant	JHU SOM	01/01/04-12/31/04	32,500
Jackson, Brooks	Subcontract	Family Health International	10/01/03-03/31/04	386,625
Jackson, Brooks	Subcontract	UNC-Fogarty Training Program	06/01/03-05/31/04	32,725
Ji, Hongxiu	Inst. Grant	JHU Institutional Research Prog.	05/01/04-04/30/05	15,000
Kulesza, Piotr	Grant	American Soc. Of Cytopathology	01/01/04-12/31/04	5,000
Kulesza, Piotr	Grant	National Kidney Foundation	07/01/03-06/30/04	6,840
Kurman & Ronnett	Contract	Merck & Co., Inc.	01/15/04-12/31/04	64,080
Kurman & Ronnett	Contract	Merck & Co., Inc.	03/01/04-08/31/05	190,272
Kurman & Ronnett	Contract	Merck & Co., Inc.	03/01/04-02/28/08	1,783,200
Li, Jinong	Grant	Susan Love Breast Cancer Fdn.	04/01/04-03/31/05	20,000
Maitra, Anirban	Grant	State of Maryland	01/01/04-12/31/05	150,000
Maitra, Anirban	R21 Grant	NIH/NCI	04/01/04-03/31/05	147,101
Maitra, Anirban	CDA	JHU SOM	04/01/04-03/31/05	50,000
Martin, Lee	R01 Grant	NIH/NINDS	09/30/03-09/29/07	1,361,136
Merz, William	Contract	Merck & Co., Inc.	01/01/04-03/31/04	1,878
Oelke, Mathias	Grant	International Myeloma Fdn.	01/01/04-12/31/05	40,000
Parrish, Nicole	Contract	Akonni Biosystems	4/1/2004-11/01/04	12,000
Pasternack, Gary	Grant	Dept of Defense - US Army	02/01/04-07/31/05	81,750
Pasternack, Gary	Subcontract	Marligen Biosciences	02/01/04-09/30/04	33,000
Rose, Noel	Contract	Cel-Sci. Corporation	05/01/03-10/31/04	52,295
Rosenthal, Dorothy	Contract	TriPath Imaging	09/01/03-08/31/04	47,315
Sadegh-Nasseri, Sch.	R01 Grant	NIH/NIGMS	12/01/03-11/30/07	1,308,000
Schneck, Jonathan	R21 Grant	NIH/NIAID	04/01/04-03/31/06	490,500
Shan, Hua	Contract	Chiron Corporation	03/19/04-03/18/05	300,000
Sokoll, Lori	Contract	Wako Chemicals	08/01/03-12/31/03	21,500
Sokoll, Lori	Contract	Dade Behring	10/15/03-02/29/04	26,000
Sokoll, Lori	Contract	Diagnostics Products Corp.	01/15/04-06/30/04	91,700
Ticehurst, John	Inst. Grant	JHU Institutional Research Prog.	05/01/04-04/30/05	14,300
Valsamakis, Alexandra	Contract	Gen_probe Inc.	01/19/04-07/18/04	212,033
Wong, Philip	Grant	JHU Center for ALS Research	01/01/04-12/31/05	170,200
Zhang, Zhen	Grant	Dept of Defense - US Army	02/01/04-01/31/06	583,977
Total				\$12,198,689

Department of Pathology Incoming House Staff, 2004-2005

Kathleen Burns

Kathleen was born in Birmingham, AL. She attended college at the University of Southern Mississippi where she studied the effects of site-directed mutagenesis on glutamyl cyclase activity. She then completed a combined MD/PhD program at Baylor College of Medicine (Department of Molecular and Human Genetics) in Texas where she researched gonadal tumorigenesis resulting in numerous publications. When not hard at work in the lab, she enjoys swimming, reading and spending time with family and friends. Ask her for some free 'Two-steppin' lessons and help on your grants. Kathy will be training in CP.



Alex Cappiello

Alex is originally from New Jersey. She completed her undergraduate studies in biology and chemistry at Wake Forest University in North Carolina before moving to Baltimore, where she completed an MD program at Johns Hopkins University School of Medicine. Her research interests include flow cytometric examination of abnormal populations of T-lymphocytes in patients with Mycosis Fungoides and Sézary Syndrome. Along with her fiancé, she formed an art and book club in which they visit art museums, attend musical performances and read and discuss books; she is fluent in Spanish. She enjoys pumping iron. In the eighth grade, she attended a Bon Jovi concert and had "Jersey hair". Alex will pursue AP/CP training.



Terina Chen

Terina was born in Portland, OR. She earned bachelor degrees in microbiology and history at the University of Rochester, New York. While there, she received awards for excellence in writing on Victorian literature. She stayed on at Rochester and completed her medical training and a post-sophomore fellowship in pathology. During this time, she initiated a report on renal oncocytosis, in a pediatric patient, which will be published in the "International Journal of Surgical Pathology". While not hard at work, Terina enjoys scrap-booking and photography, vocal performance and musical theater. Her husband, Joey, is an accomplished actor who will be pursuing career opportunities through auditions on Broadway - and maybe as an extra on 'CSI'? Terina will be pursuing AP/CP training.



Steve Cheung

Steve was born in Hong Kong. While in high school, he assisted the NASA Technology Lab in their efforts to put a man on Mars. Steve cried as he recently watched the Mars Lander touch down on that beautiful rust-colored terrain. He attended Harvard University as an undergraduate student where he studied the role of cell cycle regulators in muscle development. His medical training, consisting of a combined MD/PhD program, was obtained from University of Virginia. He was very successful in the laboratory, publishing multiple articles on the phosphorylation of histone proteins and their effects on the cell nucleus. Steve is fluent in Cantonese and



Foochinese and enjoys chess, cooking, Roman history and basketball. He once dunked on an 8-foot basket. Steve is pursuing AP/CP training.

Hywyn Churchill

Hywyn was born in Denver, CO. He received a bachelor degree in chemistry at the University of Virginia. After graduation, he worked at Merck Research Laboratories designing synthetic chemical processes for novel drug development. Although he brought home a serious paycheck during this period, he felt an emptiness in his soul...he wanted to be a pathologist. His calling sent him to the University of Illinois to earn his MD/PhD in the department of biochemistry, which involved the engineering of immunological receptors to protect host cells from super-antigen-induced pathogenesis. Hywyn enjoys outdoor activities but nothing gets his adrenaline pumping more than throwing darts. Hywyn will be pursuing AP/CP training.



Zarir Karanjawala

Zarir was born in Rockville, NY. He then relocated to the West Coast, obtaining his undergraduate, graduate and medical education in Los Angeles. He earned his MD/PhD at the University of Southern California School of Medicine. His PhD was in the department of pathology, resulting in numerous publications on DNA repair. In his free time, he enjoys reading, fishing, and his true passion, stamp collecting. He needs one more stamp to complete the entire Britney Spears collection. Zarir is interested in AP/CP training.



Continued on page 9

Department of Pathology Incoming House Staff, 2004-2005

Continued from page 8

Janis Taube

Janis was born in Gainesville, FL. Following undergraduate studies at Duke University, she studied platelet aggregation in prothrombotic disease states as a research fellow and masters student at Cambridge University/University College of London. She then earned her MD at Tulane University School of Medicine, where she continued to pursue her interests in hematology, developing a method to isolate nucleated RBCs from the peripheral blood of patients with sickle cell anemia. Outside of work, she enjoys horse-back riding, sailing and running.



Danielle Wehle

Danielle was born in Bayshore, NY. She studied chemistry as an undergraduate student prior to moving to Tucson, where she completed a MS in analytical chemistry. Her medical training at the University of Arizona College of Medicine was interrupted by a post-sophomore pathology fellowship at University of Washington. Her research involved Her-2/neu detection in breast cancer microarrays. She is an avid rock-climber, mountain-biker, Ultimate Frisbee player and distance runner. She is an accomplished marathoner and has publicly challenged Dr. Jackson to a race. Danielle will be joining us for AP/CP training. ■



12th annual Martin Luther King Jr. Community Service Awards

Christina M. Davitt Hostetter (Education and Development Coordinator, Department of Pathology, Core and Specialty Laboratories)
Recipient of the 2004 "Martin Luther King, Jr. Award" for Community Service



"For three years this Johns Hopkins Hospital team has been committed to the BOND to BOND Career Development Youth Mentoring Program, a project that provides students at Tench Tilghman Elementary School with early exposure to career planning and the excitement of visiting and learning about Johns Hopkins. Working with the school's principal, community liaison and fourth grade teacher, the team, led by Mary Mullen, began by adopting one fourth grade class. They have now recruited enough volunteers to adopt all the fourth grade classes at the East Baltimore school." ■

Johns Hopkins Division of Cytopathology shines at annual American Society of Cytopathology meeting.

This year's annual American Society of Cytopathology meeting in Orlando, FL, has been a resounding success for the Johns Hopkins Division of Cytopathology. Perhaps the best indicator of our success was the announcement that Hopkins has been designated a Center of Excellence by the ASC. The COE program was recently initiated by this national organization to recognize and promote programs with "extraordinary expertise in all phases of Cytopathology practice, education and research; and through this expertise, can and will provide the opportunities necessary for all levels of Cytopathology education through on-site and/or distance learning programs...in all areas of cytologic practice, including novel "frontier technologies." Hopkins joins just three other institutions in this distinction, including the Harvard Medical Institutions Consortium, the Fletcher

Allen Medical Center/University of Vermont, and the Medical University of South Carolina. Congratulations to everyone in the Division for this well-deserved recognition, particularly Dr. Syed Ali and Fran Burroughs who worked on the application.

Hopkins was also recognized by another new ASC initiative, the ASC Research Seed Award, designed to support research efforts by outstanding cytopathology fellows. This year Dr. Piotr Kulesza (The Yener Erozan Cytopathology Fellow) was one of just three individuals to receive this prestigious award and stipend. The goal of this award is to "stimulate new research projects using material obtained in routine cytology specimens...and work toward the goal of innovation in diagnostic cytopathology that will improve patient care by improving the quality of the work done by cytopathologists. This

includes...application of new technologies to cytopathology." Piotr's research focuses on the identification of molecular indicators of responsiveness to targeted therapy in cytologic samples from human tumors.

In addition to these distinctions, the Hopkins cytopathologists, cytotechnologists, pathology residents and cytopathology fellows presented two platform presentations, seven posters, and a panel luncheon. Drs. Dorothy Rosenthal and Patti Alli presented a well-received workshop on pancreas cytopathology, and Dr. Syed Ali participated in a special course on lung pathology. The annual Hopkins Cytopathology Alumni breakfast was well attended by the current Hopkins faculty, fellows, and residents, as well as previous fellows, Sherry Li and Robert Pu. ■

Douglas P. Clark, M.D.

Awards / Recognition

Syed Ali, M.D.

Elected as a member of the Cytopathology Resource Council, American Society for Clinical Pathology (ASCP)

Pedram Argani, M.D.

- Recipient of the School of Medicine Professor's Award for Distinction in Teaching in the Basic and Preclinical Sciences for 2003-2004
- Recipient of the 2004 Pathology Housestaff Faculty Teaching Award for AP

Melissa Brassell, M.D.

Appointed Chief Resident for 2004-2005

Dengfeng Cao, M.D., Ph.D.

Recipient of the Joseph C. Eggleston Award in Surgical Pathology for 2004

Patrizio Caturegli, M.D.

- Appointed Associate Editor for Endocrinology
- Appointed Associate Editor for Discoveries in Medicine

Daniel Chan, Ph.D., DABCC

First Recipient of the Morton K. Schwartz Award for Significant Contributions in Cancer Research Diagnostics, presented by the American Association for Clinical Chemistry

Douglas P. Clark, M.D.

Recipient of the "Center of Excellence Award" from the American Society of Cytopathology: Division of Cytopathology

William Clarke, Ph.D.

Recipient of the 2004 "George Grannis Award for Excellence in Research and Scientific Publication" from the National Academy of Clinical Biochemistry (NACB), which recognizes excellence in research and scientific publication by a young investigator.

Barbara Detrick, M.D.

NIAMS, NIH Study Section, June 10, 2003

Yener Erozan, M.D.

Recipient of the 2004 "Educator of the Year Award" from the Papanicolaou Society of Cytopathology

Kapil Gupta (Graduate Student in Dr. Schneck's lab)

Recipient of the 2004 "Student Research Achievement Award" from the Biophysical Society

Greg Hosler, M.D., Ph.D.

Appointed Chief Resident for 2004-2005

Amy Huberman B.A.

Recipient of The William H. Welch Award for Outstanding Achievement in Pathology as a Second Year Medical Student for Class of 2006

Walter Klein, M.D.

Recipient of the 2003 "Third place Duel in Dermatopathology" from the American Academy of Dermatopathology

Piotr Kulesza, M.D., Ph.D.

- Recipient of the 2004 "Research Seed Award" from the American Society of Cytopathology
- Recipient of The 2004 Johns Hopkins Dean's Distinguished Service Award

Alexandra Klevytska B.S.

Recipient of the Pathobiology Chief Graduate Student Award 2003-2004

Frank Kuhajda, M.D.

- Invited speaker at the 2004 New York Academy of Science. He will present novel approaches to obesity and diabetes therapeutics
- Invited speaker at the American Society for Pharmacology and Experimental Therapeutics (ASPET), 2004 Ray Fuller Symposium, "The Pharmacology of Obesity: Target and tools for the 21st Century"
- Invited speaker at the "Integrative Role of Fatty Acids in the Metabolic Regulation: Implications for Obesity and Diabetes Research Symposium," sponsored by the American Diabetes Association, April 2004

Anirban Maitra, M.D.

Recipient of the 2004 Castleman Award for best paper published in the English language in the field of pathology from the United States and Canadian Academy of Pathology (USCAP)

Trina Mcfadden (Lab Tech II, Core lab)

Recipient of a "Catch a Shining Star" Award

William Merz, Ph.D.

Recipient of the Award of Excellence in teaching, leadership and important contributions to their field of clinical mycology, presented by The Medical Mycology Society of NY.

Claudio Mosse, M.D., Ph.D.

Recipient of Chief Resident Award 2003-2004

Gary Pasternack, M.D., Ph.D.

Appointed to the Editorial Board for the American Journal of Pathology

Lorraine Racusen, M.D.

- Nominated for Vice President of the Renal Pathology Society
- Invited to serve on the Program Committee for the 2005 American Society of Nephrology annual meeting

Mark K. Romagnoli

Recipient of the 2004 Housestaff Teaching Award for Staff

Noel R. Rose, M.D., Ph.D.

Appointed Chair of the NIH Autoimmune Diseases Coordinating Committee (ADCC)

Sharon Swierczynski, M.D., Ph.D.

Recipient of Chief Resident Award 2003-2004

Michael S. Torbenson, M.D.

Recipient of the 2004 Pathology Housestaff Faculty Teaching Award for AP

Stina Tucker, B.A.

Appointed Chief Graduate Student, Pathobiology Program for 2004-2005

Edward Weir, M.D.

Recipient of the 2004 Pathology Housestaff Faculty Teaching Award for CP

Philip C. Y. Wong, Ph.D.

Recipient of the 2004 Pathobiology Graduate Program Teaching Award ■

On the Web...

Alzheimer's Disease Research Center

<http://www.alzresearch.org>

The Alzheimer's Disease Research Center's recently re-designed web site offers:

- an overview of Alzheimer's Disease and available services and resources for patients and caregivers
- up-to-date listings of ongoing Basic Research, Clinical Research and Clinical Trials, and
- Alzheimer's Disease-related continuing education opportunities for healthcare professionals

3rd Annual Ovarian Cancer Climb for Life™

<http://www.ovariancancer.jhmi.edu/climb>

The Johns Hopkins Pathology Ovarian Cancer Web Site continues to flourish during its fourth year of publication. Sean Patrick, the web site's cofounder, ovarian cancer patient and advocate, and founder of the Health Empowerment, Research and Advocacy (HERA™) Women's Cancer Foundation is now hard at work planning the third annual Ovarian Cancer Climb for Life benefiting the Johns Hopkins Ovarian Cancer Initiative.

This year's event will take place September 16 – 19, 2004 in beautiful Salt Lake City, UT and attendance is expected to exceed 150 climbers from novice to expert and professional level. Each year the event achieves a higher public profile through cooperation between HERA and corporate sponsors. This past winter, REI and Black Diamond partnered to host the HERA Climb For Life Road Tour at various REI climbing centers in the western United States.

Last year's Climb for Life in Salt Lake City raised over \$45,000 and we are planning to climb past that benchmark this year. See the web site for information about participating or supporting the event.

Pathology Grand Rounds Online

<http://pathology2.jhu.edu/departments/grandrounds.cfm>

The 500th Pathology Grand Rounds is coming up in the Fall of 2004. A selection of these presentations have been recorded and made available on the departmental web site throughout the year. This feature is supported by an unrestricted educational grant from Roche Diagnostics.

Online versions are available for several talks including:

April 1, 2004

Mark Sulkowski, M.D., Assistant Professor

Johns Hopkins Medical Institutions

"Hepatitis C in HIV Infected Persons"

January 15, 2004

Ie-ming Shih, M.D., Ph.D., Associate Professor

Johns Hopkins Medical Institutions

"Molecular genetic pathways in ovarian cancer"

December 4, 2003

Anna Mae Diehl, M.D., Professor of Gastroenterology

Johns Hopkins Medical Institutions

"Regeneration of chronically injured livers"

May 15, 2003

Edward McCarthy, M.D., Professor of Pathology

Johns Hopkins Medical Institutions

"The History of the Pathology Department at Johns Hopkins"

Department members interested in developing new departmental web sites or updating existing pages should contact Jennifer Brumbaugh at 410-614-7912.



Pathology
Employee
Appreciation Day

September 12, 2004

Registration
will be required -
Details to follow

Calendar

- June 24, 2004 Pathology Young Investigator's Day Awardees present at Pathology Grand Rounds
- July 6, 2004 Housestaff Welcome Reception
- Sept. 12, 2004 Pathology Employee Appreciation Day at Oregon Ridge Park; Registration required - details to follow
- Sept. 19, 2004 Welcome Reception for new faculty, housestaff, fellows, and graduate students
- Nov. 5-6, 2004 Seventh Annual Current Topics in Gynecologic Pathology; Sheraton Inner Harbor Hotel, Baltimore, MD
- Nov. 7-8, 2004 Fourth Annual Current Topics in Gastrointestinal/Liver Pathology; Sheraton Inner Harbor Hotel, Baltimore, MD
- Feb. 26 – Mar. 4, 2005 United States and Canadian Academy of Pathology 93rd Annual Meeting
Marriott Hotel, San Antonio, TX
- Feb. 27, 2005 Annual Meeting of the Alumni Council of the Department of Pathology, San Antonio, TX
- Feb. 28, 2005 United States and Canadian Academy of Pathology Alumni Reception
Marriott Hotel, San Antonio, TX
- Jun. 2-4, 2005 The Biennial Meeting of the Johns Hopkins Medical & Surgical Association and the School of Medicine Reunion

Congratulations to the 6th Annual Pathology Young Investigators' Day Awardees

The Department of Pathology reached an all-time high of 83 registered posters for this year's Young Investigators' Day.

You can view the award-winning abstracts online at

<http://pathology2.jhu.edu/department/Pyid2004.cfm>

For Excellence in Basic Research

Onikepe Adetoun Adeghola, M.D.
Lodewijk Adriaan Anton Brosens
Sarat Kumar Dalai, Ph.D.
Mohamed Hassan Farah, Ph.D.
Tamara Flys, B.S.
Mehmet Levent Guler, M.D.
Kapil Gupta
Isamu Z. Hartman, B.S.
Sunil Suhas Karhadkar, M.B.B.S.
Jung-Whan Kim, D.V.M.
Fiona Mary Laird, Ph.D.
Ken-Yu Lin, B.S.
Guojun Ma, M.D.
Alan Keith Meeker, Ph.D.
Craig Norman Morrell, D.V.M.
Rajni Sharma, Ph.D.
Eduardo Daniel Zamora, M.D.

For Excellence in Clinical Research

Scott James Cameron, Ph.D.
Dengfeng Cao, M.D., Ph.D.
Esther Elishaev, M.D.
Xing Fan, M.D., Ph.D.
Anil Vasdev Parwani, M.D., Ph.D.

For Excellence in Translational Research

Donna Elizabeth Hansel, M.D., Ph.D.
Jens Koopmann, M.D.
Chanjuan Shi, M.D., Ph.D.

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