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THE WARREN ALPERT MEDICAL SCHOOL OF BROWN UNIVERSITY

# **SPOTLIGHT**



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# **COBRE Center for Cancer Research Development** and Center for Stem Cell Biology

The COBRE Centers for Cancer Research Development (CCRD) and Stem Cell Biology fall Symposium (CSCB) was held Friday, September 23, 2010 at the Providence Renaissance Hotel. Speakers included COBRE CCRD External Advisory Committee Members Dan Flynn from The Commonwealth Medical College and Bill Coleman from UNC Medical School. Other speakers included James Sherley from Boston Biomedical Research Institute and John Ross from the Beckman Research Institute at the City of Hope, who serve on the External Advisory Committee for the COBRE Center for Stem Cell Biology.

Scott Wolfe, Director of GrowSmart RI also gave a presentation entitled, "Smart Growth: A Smart Path for RI Biomedical Industry". His talk was followed immediately by an Executive Lunch, which was attended by members of the community. The direction for the "Knowledge District" in Providence was discussed and many collaborations were made.

The External Advisory Committees for both the COBRE CCRD and CSCB held their External



Doug Hixon, MD

Advisory Committee meetings the prior day where investigators supported by the COBREs reviewed their ongoing research.

The COBRE Centers hold their symposiums biannually and are also attended by members of other RI COBRE Centers including Women & Infants, Roger Williams Hospital and Brown University. The next symposium will be held in the spring of 2011.

# The COBRE Center for Cancer Research Development **Proteomics Core**

The Proteomics Core sponsored an Open House on Thursday, October 28, 2010, with James Sherley from the Barrett Biomedical Research Institute speaking on "Suppression of asymmetric cell kinetics (SACK): A general method for ex vivo expansion of human distributed stem cells." Art Solomon from Brown University spoke on "Quantitative phosphoproteomic analysis by mass spectrometry of immune cell signaling". Dennis Pantazatos, the newest addition to the COBRE CCRD also spoke on his upcoming projects.

The Open House also included tours of the facility, which was highlighted by the new Bruker Ultraflextreme™ Imaging Mass Spectrometer. The newest instrument to the Proteomics Laboratory is the powerful technology platform designed for the analyses of tissue sections commonly referred

to as MALDI Imaging Mass Spectrometry. It features a MALDI-TOF and MALDI-TOF-TOF mass spectrometer with optimized laser (smartbeam technology), flexImaging software for data acquisition, sophisticated ClinProTools software for statistical evaluation and classification by hierarchical clustering or Principal Component Analyses, (PCA) all from Bruker Daltontics. This instrument was purchased with funding that was awarded to Professor Josic in 2009 from the National Institutes of Health.

The Proteomics Core, which is directed by Dr. Djuro Josic, recently reopened after a short funding hiatus. For information on the Proteomics Core, please contact Elizabeth Smith, Administrative Coordinator at (401) 444-2871 or via e-mail at esmith6@lifespan.org.

# **Chairman's Message**

s I sit writing this contribution to the newsletter, I have just completed a two-week stint as a ward attending on the Medical Service at Rhode Island Hospital, which followed shortly after a two-week rotation over the Christmas Holidays at the Miriam Hospital. Truth be told, I am a bit fatigued, but at the same time energized by what I experienced during those four weeks. First and foremost, it was wonderful to be back seeing patients again. I remain humbled by how extraordinarily privileged I am to be able to care for patients during very difficult times in their lives. Few careers offer a person the opportunity to make someone's day better every time you go to work. Sometimes we are fortunate enough to cure the patients, to make them completely better. More often, we address chronic diseases that require persistent management, where our interventions do not cure, but alleviate symptoms. Occasionally, we need to deliver bad news. Even those moments are an opportunity to do something good, by delivering the news as compassionately as we possibly can.

The Miriam and Rhode Island Hospitals are busy places, as are the Providence VA, Women's and Infants Hospital and the Pawtucket Memorial Hospital. Patients come in sick, get diagnosed very quickly and have therapeutic plans prepared for them often over only a matter of hours. The successful execution of the complex choreography required for

efficient use of hospital resources in modern times requires the dedicated work of physicians, nurses, nurses' aides, pharmacists, administrators, social workers, dietary workers, transport workers, laboratory technicians and a host of other important role-players. I was very impressed by how quickly we were able to get things accomplished, and the good nature with which everyone did their jobs.



Louis Rice, MD

Of course, among the most pleasurable of my experiences was getting to know quite a few of our impressive medical house staff. These young physicians make the hospital work for the patients. They are smart, hard-working, conscientious and truly concerned about their patients' well being. As a Chairman of a large Department of Medicine, my disparate responsibilities often prevent more than limited and intermittent contact with house staff - at conferences, for example. The opportunity to serve as ward attending gives me a chance to get to know house staff on a very different level, to see them day in and day out as they make routine and major decisions. In turn, they get a chance to see how I approach patients and difficult

medical decisions in real time. They see me struggle like any other conscientious physician. In short, we learn from each other, and establish a bond that is truly special.

There is considerable talk about how medical education will need to change to address the changing of medical practice models. More specifically, as we evolve from hospital systems

to health systems, we will need to train our future physicians within (mostly) communitybased environments. This sort of evolution is undoubtedly wise and necessary, as much of our care for patients has emigrated to the outpatient setting, where young physicians also learn the management of chronic illness and enjoy the long-term doctor-patient relationships that influenced many of us in our decisions to enter medicine. The inpatient setting, however, represents the distillation of internal medicine into a concentrated experience which, through its combination of intimacy and intensity, provides such fertile ground for educating new physicians. The extraordinary educational value of the inpatient bedside experience, in my view, can never be replaced.



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**Division of Infection Diseases physicians** Curt G. Beckwith, MD and Josiah D. Rich, MD, MPH at The Miriam Hospital received three of 12 newly awarded grants from the National Institutes of Health (NIH) aimed at improving HIV prevention and treatment of prison and jail inmates. The awards to Curt G. Beckwith, MD, Josiah D. Rich, MD, MPH and collaborators are part of the Seek, Test, and Treat: Addressing HIV in the Criminal Justice System initiative - NIH's largest research initiative to date to aggressively identify and treat HIV-positive inmates, parolees and probationers and help them continue care when they return to their communities. Dr. Rich is a Co-Principal Investigator on two of the awards. The first award from the National Institute on Drug Abuse (NIDA), entitled A Randomized Controlled Trial and Cohort Study of HIV Testing, is being conducted in collaboration with Michael Gordon, DPA of the Friends Research Institute. This grant, with direct costs totaling \$3,073,417 over five years, will be conducted in Rhode Island and Baltimore, MD. Investigators will compare a strategy of rapid HIV testing in probation and parole offices to referral to an off-site community HIV testing location with a randomized control study, as well as evaluate the impact of a theory driven, case managed based strategy on engagement and retention in HIV care, and viral suppression among individuals with HIV recruited through community corrections. Dr. Rich's second NIDAfunded award, entitled Improving Linkage to HIV Care Following Release from Incarceration, will focus on improving the link between HIV-positive inmates and HIV care following release from jail or prison. Dr. Rich will work with co-principal investigator Liza Solomon, PhD from Abt Associates and colleagues to design, implement and analyze a monitoring strategy for evaluating follow-up HIV medical care in the community after incarceration. Investigators will link the new Ryan White HIV/AIDS Program dataset to corrections release data, and then apply this process across multiple states, correctional jurisdictions and care environments. The direct costs awarded for this effort total \$3,732,746 over five years. Co-Principal Investigator of the third award, Dr. Beckwith, will work with his co-principal investigators Irene Kuo, PhD from George Washington University, and Ann Kurth, PhD, CNM, from New York University on CARE Corrections: Technology for Jail HIV/HCV Testing, Linkage and Care (TLC). This project will adapt and evaluate information and communication

technology-(ICT) based tools used for HIV testing and for improving adherence to HIV treatment, adding rapid hepatitis C virus (HCV) testing and prevention to the delivery of HIV services for jailed populations, and automated text messaging functionality. These tools will facilitate HIV and HCV testing and treatment counseling (CARE Corrections Screen), as well as linkage to community-based care for HIVinfected jail detainees and viral suppression for jail detainees on antiretrovirals being released to the community (CARE+ Corrections Call). CARE Corrections Screen will be evaluated in a two site pilot study RI and Washington DC, and a randomized controlled trial conducted within the Washington DC jail system will be used to compare CARE+ Corrections Call to standard discharge planning services. The grant, with direct costs totaling \$4,511,416 over five years, is awarded by NIDA, with additional support provided by the National Institute of Allergy and Infectious Diseases (NIAID).

#### Jason Alliota, MD/Matthew Reilly, Brown student, from the Hematology and Medical Oncology Division, received a \$4,000 award from the American Society of Hematology

from the American Society of Hematology. The funds will be used towards a project on Pulmonary Hypertension, a rare, progressive, and ultimately fatal complication associated with bone marrow transplantation in patients. The two specific questions the research hopes to answer are: Does a specific cell type derived from marrow stem cells lead to pulmonary vascular changes? Does removing that cell type prevent the development of pulmonary hypertension in susceptible animals?

Susan Cu-Uvin, MD, from the Division of Infectious Diseases, has received an NIH ARRA Supplement from the National Institutes of Health via the P-30 Center for AIDS Research grant (CFAR). This one-year supplement will provide \$427,582 in total costs for the project 'Cervical Cancer See and Treat: How to Best Follow-up? The specific aims are to 1) compare the accuracy of VIA to conventional pap smear or HPV typing as a follow-up tool to detect moderate to severe cervical cancer among HIV- women in Eldoret, Kenya who have undergone VIA and cryotherapy with histology as a gold standard and 2) assess the feasibility and acceptability of repeat VIA compared to pap smear or HIV typing among HIV+ women who have undergone VIA and cryotherapy for cervical dysplasia. Findings will be used to develop the best and most appropriate

interventions in resource limited areas for cervical cancer prevention.

Patricia Engler, PhD, from the Division of General Internal Medicine, has received a Rhode Island Foundation grant to begin research on developing a comprehensive intervention that incorporates multiple individual self-care interventions that have been proven to assist in good diabetic control for patients with diabetes mellitus. The potential is that a more comprehensive intervention model could decrease rates of morbidity and mortality among individuals with diabetes mellitus.

**Traci Green, MD, from the Division of General Internal Medicine,** has received \$113,000 in direct costs per year for two years for a grant from the Centers of Disease Control. The funds will be used to explore the utility and effectiveness of Rhode Island and Connecticut prescription monitoring programs (PMP's) in reducing accidental intoxication deaths among adults proscribed opioid analgesics.

Elizabeth Harrington, PhD, from the Pulmonary

**Division,** has received a 3-year American Heart Association Grant-in-Aid titled 'Signal Transducers of Lung Endothelial Barrier Dysfunction.' With annual direct costs of \$60,000 per year, the long range goal of this grant it to determine the cross-talk between PKCdelta and SHP2 in regulating endothelial barrier dysfunction.

Milu Kojic, MD, from the Infectious Diseases Division, has received \$88,000 in direct cost funding from the Centers of Disease Control for the 'SUN-FLU Study'. The primary purpose of this project is to determine whether quarantine and treatment recommendations for pandemic (H1N1) 2009 influenza among HIV-infected persons should differ from recommendations made to immunocompetent persons.

#### Qing Lu, DVM, PhD, from the Pulmonary

**Division,** along with Drs. Guarev Choudhary and Dr. John McGeary, were awarded a \$495,000 in direct costs from a VA funded Shared Equipment Program. These funds were used to purchase a rodent pulmonary function laboratory, an electrophoresis system, a slide scanner, and a nucleic acid extraction system, all of which are currently operational in the Providence VAMC research laboratories.

**Eduardo Nillni, PhD, from the Endocrinology Division,** has received a 4-year Ro1 from the NIH for the project 'Hypothalamic SIRT1 and Energy

## **Research Awards** continued

Balances.' The grant will receive an average of \$250,000 per year in direct cost funding. The grant will focus on the enzyme SIRT1 and the role/influence it may have on obesity. A more thorough understanding of the molecular mechanisms underlying the pathogenesis of obesity and regulation of energy metabolism is essential for the development of effective therapies for obesity. Specifically, Dr. Nillni hypothesizes that Sirt1 could play a role in the control of energy balance, perhaps by influencing the mTOR or AMPK pathways, at the level of the hypothalamus and the research will test this hypothesis.

## Sharon Rounds, MD and Qing Lu, DVM, PhD,

from the Pulmonary Division, were awarded a VA Merit Review grant for a project titled 'Lung Endothelial Cell Apoptosis and Emphysema.' This 4-year award averages \$150,000 per year in direct costs. The objective of the grant is to understand mechanisms of lung endothelial apoptosis and how this contributes to the pathogenesis of emphysema.

## Katherine Sharkey, MD, from the Pulmonary Division, has received a one-year \$20,000 grant from the Sleep Research Society Foundation for her project 'Sleep Circadian Rhythm Disruption in Postpartum Depression.' The specific aims of this grant are to 1) desctibe the changes the

occur in sleep, circadian rhythms, and light exposure in women with major depressive disorder/bipolar disorder during the perinatal period; and 2) test the hypothesis that changes in sleep and circadian rhythms are associated with postpartum mood.

### Wen-Chih (Hank) Wu MD, from the Cardiology

**Division,** has received \$100,000 in direct costs via a VA QUERI grant titled 'Medical Center Implementation of Patient-Centered-Medical-Home Model in CHF to Reduce Hospitalization Rates.' These funds will be used to implement a hospital-wide inpatient referral program of patients admitted with CHF to a pharmacist-led CHF Transition of Care Program (CHF-TCP). A comparison of the hospital-wide risk-adjusted 30-day hospitalization rates for patients with a primary discharge diagnosis of CHF from before versus during the intervention period will be done.

## Peng Zhang, PhD, from the Cardiology Division,

has received a grant from the Rhode Island Foundation. The funds will be used to investigate the central hypothesis that microRNAs, a class of endogenous, small non-coding RNAs, play a critical role in regulating fibroblast function and fibrosis development. The preliminary data generated from this grant will be used to develop a larger grant proposal that will investigate the functional role of microRNAs in cardiac fibroblasts for fibrosis development in vivo and explore the potential utility for the treatment and prevention of fibrosis.

#### Shougang Zhuang, PhD, from the Renal

**Division**, has received a 4-year grant from the National Institutes of Health for his project 'Histone Deacetylases as Novel Therapeutic Targets for Kidney Fibrosis? Averaging approximately \$250,000 per year in direct cost funding, the long-term goal of this proposal is to elucidate the role and mechanisms of class I histone deacetylases (HDACs) in renal fibrosis. Specific Aim1 will define the role of the class I HDAC isoforms in regulating cell proliferation and activation and global protein expression and lysine acetylation in renal interstitial fibroblasts. Specific Aim 2 will elucidate the mechanism of class I HDAC-mediated activation of STAT3 in renal interstitial fibroblasts. Specific Aim 3 will evaluate the therapeutic effect of class I HDAC and STAT<sub>3</sub> inhibitors on the progression of renal fibrosis following obstructive injury. Successful completion of these studies will increase our knowledge of the mechanisms of renal fibrosis and facilitate the development of HDAC inhibitors as novel treatments for CKD

**Congratulations to Drs. Adrian Gardner** (Infectious Diseases) and Matthew Jankowich (Pulmonary) as recipients of the Department of Medicine Chairman's Developmental Research Grant Program. Each recipient will receive \$25,000 in funding for their respective project.

# **Dr. Fred J. Schiffman named First Sigal Professor**

Dedication of the \$3 million Sigal Family Professorship in Humanistic Medicine honoring the late Irving and Phyllis Sigal was held on September 16, 2010 at Brown University.

Dr. Fred Schiffman, Medical Director of the Lifespan Comprehensive Cancer Care Center and Associate Physician-in-chief at The Miriam Hospital who cared for Mr. Sigal during his final illness, was chosen as the inaugural professor.

"The Sigal program will combine traditional and innovative educational techniques, including bedside teaching rounds, grief rounds, homevisit programs, symposia and visiting scholars and experts in the field, spirituality, end-of-life care, personal coping skills, research presentation and prizes, student and physician honors and programs in the arts."

The gift will be divided equally between The Miriam Hospital and the Warren Alpert Medical School of Brown University.

Text credit: Brown University (A.Umstadter) & Jewish Voice & Herald



Left to right: Arthur Sampson, Executive Director of The Miriam Hospital, Andrew Sigal, Dr. Fred Schiffman, and Dean Edward Wing.

# Brown Expands its Global Health Efforts through the Global Health Initiative

### Susan Cu-Uvin, MD

Despite the remarkable progress of medical technology and drug development over the past decade, much of the developing world has yet to reap the benefits. Treatable and preventable diseases like HIV/AIDS, tuberculosis, and malaria account for more than one-third of all human deaths. Forty-two million people are infected with HIV worldwide, with more than 16,000 new infections occurring daily. Malaria, tuberculosis, and lower respiratory infections claim three million lives per year—destroying families and undermining struggling economies.

Brown has long recognized the critical need to improve health care in resource-poor communities around the world. Today, with projects and programs in 37 countries—28 of them in developing countries—Brown is vigorously expanding its global health efforts through the establishment of a Global Health Initiative. Launched on September 29, 2009, this exciting initiative will encompass practitioners and scientists from across the academic and hospital campuses who will partner with communities and institutions in resource limited settings such as those in Africa, India, Southeast Asia, South America, the Caribbean, and the Pacific to generate sustainable solutions. The GHI has strong support and commitment from Dean Edward Wing, who together with Dr. Jane E. Carter, initiated Brown's decade- long partnership with Moi University in Eldoret, Kenya.

The Global Health Initiative's director, Dr. Susan Cu-Uvin, is a renowned expert in global health and HIV/AIDS in women. A professor of obstetrics and gynecology and medicine, Dr. Cu-Uvin was the Director of the Immunology Center at The Miriam Hospital, which serves almost 1,200 HIV-infected patients, and of the Women and AIDS Core of Brown's Center for AIDS Research. She is active in training international physicians and researchers through Brown's AIDS International Research Training Grant, and helped establish a HIV Women's Clinic in Cambodia, where she trains health care workers to apply for grants and conduct research studies relevant to women with HIV. She also helped establish a cervical cancer screening clinic for HIV-infected women in Western Kenya.

The composition of the GHI Executive Committee reflects the multidisciplinary emphasis of the program. In addition to Dr. Cu-Uvin and Dean Wing, committee members include: Dr. Charles Carpenter, Director, Center for AIDS Research; Dr. Kenneth Mayer, Director, Fogarty AIDS International Training and Research Program; Dr. Timothy Flanigan, Chief of Infectious Diseases; Prof. Michael White, sociologist and Director, Population Studies and Training Center; Prof. Stephen McGarvey, anthropologist and Director, International Health Institute; Prof. Daniel



Susan Cu-Uvin, MD

Smith, anthropologist; Dr. Jeffrey Borkan, Chief of Family Medicine; Prof. Terrie Wetle, Associate Dean, Public Health; Dr. Jane Carter, Director of the Brown-Moi University program; Prof. Michael Kennedy, Director, Watson Institute for International Studies; Dr. Louis Rice, Chief of Medicine, Prof. Kate Smith, conservation medicine; Prof. Anubhav Tripathi, Department of Engineering.

There has been a long tradition of faculty and students at Brown working to improve the lives and health of people in resource limited countries. The Global Health Initiative will help coordinate the broad range of activities across and between the various departments, institutes, centers, and programs in global health at Brown and its affiliated hospitals. The Global Health Initiative aims to address inequities in health, both worldwide and in our local communities. The Initiative will lead efforts to develop multidisciplinary, integrative research, training, and intervention programs related to global health. We will work to develop and enhance relationships with our global health partnering institutions to extend the academic and community service mission of Brown around the world.

# AIDS Clinical Trials Unit Marks their 10th Year Anniversary — The Miriam Hospital

## Karen Tashima, MD

We are announcing the 10 year anniversary of being awarded an AIDS Clinical Trials Unit at The Miriam Hospital. The NIH funded ACTG network's mission is to develop and conduct scientifically rigorous translational research and therapeutic clinical trials in the U.S. and internationally. Studies from this network are designed by investigators at the sites, and with support of the network are implemented at about 50 US sites and 25 international sites. Dr. Tashima is Chair of the A5241 study, nicknamed the OPTIONS study, which evaluates treatment options for triple-class antiretroviral experienced subjects failing a current regimen with drugresistant virus. The study will determine whether nucleoside reverse transcriptase inhibitors (NRTIs) are a necessary component of treatment regimens that include potent newer agents such as raltegravir (integrase inhibitor), maraviroc (small-molecule CCR5 antagonist), among others. The 2 year study will enroll 454 subjects from US sites, and is almost fully enrolled.

Dr. Tashima is the Principal Investigator at The Miriam Hospital of the unit, which is one of five

funded to the Harvard/Partners AIDS Clinical Trials Unit. We've enrolled 400 participants in 44 studies over 10 years. The unit consists of three study nurses, one data manager, one regulatory manager, laboratory personnel and support from the Lifespan pharmacy.

Lynn E. Taylor, Marisa Holubar, Kunling Wu, Ronald J. Bosch, David L. Wyles, John A. Davis, Kenneth H. Mayer, Kenneth E. Sherman, Karen T. Tashima, "Incident Hepatitis C Virus Infection among US HIV-Infected Men Enrolled in Clinical Trials," <u>Clinical</u> <u>Infectious Diseases 2011</u>, doi: 10.1093/cid/ciq201

# Brown University – University of Ghana Collaboration to Address the Challenges of HIV and AIDS in Ghana to Begin!

During November 2008, Brown President Ruth Simmons, traveled to Accra, Ghana to participate in the second University Leaders' Forum on the theme "Developing and Retaining the Next Generation of Academics". Presidents of African universities requested help to enhance education, research and faculty development. As countries and societies develop, the continued growth and expertise of the university system is absolutely critical, both for better education but also to build civic society. From this meeting grew a project funded by Higher Education for Development and USAID to "twin" American universities and African universities. We are fortunate to be funded by USAID for the next two years. The purpose of the \$1.1 million grant is to expand opportunities for faculty development, research and teaching for Ghanaian faculty in the area of HIV and AIDS. The twinning process is usually most successful when focusing on a theme. The theme of combating HIV and AIDS in Ghana was chosen as a priority by both Brown and Ghanaian faculty.

This grant was spearheaded by the expertise of Dr. Awe Kwara who grew up in Ghana and graduated from the University of Ghana. He joined the Brown faculty in 2003 after completing the Infectious Diseases fellowship and an MPH at Tulane in New Orleans. Dr. Kwara subsequently received five year NIH K23 funding to evaluate the pharmacokinetics of HIV and TB medications. Dr. Kwara's leadership has been helpful both in developing collaborations and guiding the process between the two institutions. It is fortunate that his previous anatomy professor, Prof Lawson, is now the Provost of the Colleges of Health Sciences and the Ghanaian Principle Investigator of this grant.

This grant builds on an ongoing collaboration with the last five years between Dr. Kwara and colleagues at the University of Ghana. There have been bilateral visits between Ghana and Brown involving from Tufts, Yale and the University of Ghana will be able to enhance all levels of medical and public health education related to HIV and AIDS. Tools for curriculum development will be made available at all stages of the medical



**Back row:** Mr. Daniel Hammond (Senior Registrar, College of Health Sciences), Dr. Awe Kwara (TMH ID) and Jennifer Hyde (TMH Research Administrator) **Front row:** Dr. Margaret Lartey (University of Ghana Medical School, Accra, Ghana), Dr. Timothy Flanigan, Professor Anthony Adjei (Deputy Provost, University of Ghana Medical School, Accra, Ghana), Prof. Kwesi Yankah, (Pro-Vice Chancellor (Vice President) of the University of Ghana), Dr. Charles Carpenter and Dr. Edward Wing (Dean, Brown Medical School)

not only faculty but also medical students, residents and fellows. Recent papers have demonstrated rapid decline of HIV replication among patients with HIV and TB co-infection who are treated with efavirenz-based antiretroviral therapy. Other publications have focused both on tuberculosis and HIV therapy in Ghana, West Africa.

It is our hope that over the next five years Brown faculty in collaboration with faculty education process. Joint conferences, courses and distance learning related to HIV and AIDS will be developed. Perspective clinical research projects will be an important tool for faculty development and engagement from both sides of the Atlantic.

For further questions, please feel free to contact the PI, Timothy P. Flanigan, MD or the Co-PI, Awe Kwara, MD.

# Rhode Island Hospital Division of Cardiology Acute Myocardial Infarction Quality Assurance Program



George R. McKendall, MD, FACC Director Coronary Care and Intermediate Coronary Care Units Associate Professor of Medicine

Quality matters. Delivering safe, effective, and efficient patient care is certainly a goal of all providers. Objective assessments of quality care, however, are often difficult to make. The American College of Cardiology, the American Heart Association, and the Joint Commission for Hospital Accreditation have developed reliable performance measures for patients with acute myocardial infarction. These reportable measures are based on advances in cardiovascular care over the last several decades that have resulted in dramatic improvements in patient outcome for those presenting to the hospital with acute myocardial infarction (AMI). These performance measures can be supported with ample evidence derived from multiple clinical trials.

At Rhode Island Hospital, a multi-disciplined, team oriented, unit based, patient centric approach to continuous AMI quality improvement has been in place for many years. Physicians, physician assistants,

## **Quality Assurance** continued

housestaff, nurses, quality improvement staff, and other ancillary personnel have worked together to achieve remarkable performance on established AMI indicators. This program involves prospectively following patients with AMI to ensure that treatments known to influence patient outcome are either initiated in a timely fashion or withheld for appropriate safety concerns. Furthermore, a mandatory pre discharge review of quality indicators is undertaken for each patient with AMI.

For the most recent reporting period ending November 30, 2010 we can report the following results:

- Treatment with aspirin on arrival: 100%
- Treatment with aspirin at discharge: 100%
- Treatment with beta blocker at discharge: 100%
- Treatment with lipid lowering agents at discharge: 99%
- Treatment with angiotensin converting enzyme inhibitor (ACE-I) or angiotensin

receptor blocker (ARB) for patients with left ventricular systolic dysfunction: 100%

- Measurement of left ventricular function: 100%
- Adult smoking cessation counseling: 100%
- Mean time to PCI for patients with ST elevation AMI: 57 min (target< 90)</li>
- Proportion of patients with ST elevation AMI treated within 90 min: 89%

Furthermore, the Division of Cardiology has more recently participated in the National Cardiovascular Data Registry (NCDR) for catheterization and PCI. This allows us to benchmark with other hospitals across the country for PCI outcome. For the last reporting period ending with the third quarter of 2010, patients with ST elevation AMI treated with primary angioplasty at Rhode Island Hospital had a risk adjusted in-hospital mortality of 2.1%. This places us in the 90th percentile of all hospitals participating in the NCDR.

Quality in medicine can only be achieved by

team work. These performance measures result from collaborative efforts involving the Department of Emergency Medicine, Cardiac Catheterization Laboratory, Coronary Care Unit, Intermediate Coronary Care Unit, Electrophysiology Laboratory, Cardiac Noninvasive Testing and Cardiac Surgery. A continuous quality assurance effort must include ongoing participation from all areas involved in patient care.

The Division of Cardiology also has robust quality assurance programs for patients with congestive heart failure, arrhythmia ablation procedures, device implants, and non invasive testing. These efforts take place at both Rhode Island and Miriam Hospitals and outcomes at each site are consistently excellent. As we proceed towards integration of cardiovascular services throughout the Department of Medicine, our hope is to be able to report on combined Division wide outcomes in the near future.

## **Rheumatology News**



## Dr. Kerri Batra named Associate Program Director in Rheumatology

The Division of Rheumatology has recently announced that Dr. Kerri Batra has been appointed the Associate Program Director for the Rheumatology Fellowship Training Program. Dr. Batra joined the Division of Rheumatology in 2008. She completed her Internal Medicine Residency at the Beth Israel Deaconess Medical Center in Boston. She then completed a Fellowship in Rheumatology at Brigham and Woman's Hospital where she was awarded the Distinguished Excellence in Teaching Fellows Award.

In the Division, Dr. Batra has been the Director of Fellowship Research working very closely with fellows on their research projects in addition to mentoring fellows. She has also reorganized the APC continuity clinic. In addition, she serves as a Physician Mentor for the Doctoring Course at Brown.

Dr. Batra sees patients at the 2 Dudley St. office and attends a clinic monthly at the Women & Infant's Hospital as well as Women Health on Plain Street.

## **Appointments in Rheumatology**

**Dr. Ted Lally** was appointed as the New England Region representative to the Research Strategy Committee of the National Arthritis Foundation. This Committee will make formal recommendations to the National Arthritis Foundation Board of Directors regarding specific research initiatives and projects for the funding cycle, 2010-2015.

**Dr. Tony Reginato** has been serving on the American College of Rheumatology Musculoskeletal Ultrasound Task Force. This Committee published their first report in the September issue of *Arthritis Care & Research*. The report focuses on the implementation of MSUS in clinical practice and in Fellowship training. Dr Reginato has developed a full MSUS curriculum for our Brown Rheumatology Fellowship Program.

**Dr. Reginato** was also named as Vice Secretary for North America PANLAR (Pan-American League Against Rheumatism) for a two-year term, 2010-2012.

# **Building Bridges at Med/Peds**

Residents and attending physicians in combined Internal Medicine/Pediatrics, better known as "Med/Peds," often cross bridges in their daily work. They are used to moving amongst different age groups and their needs. Taking care of patients from diverse backgrounds in hospital and ambulatory settings frequently involves crossing cultural bridges. Over the past year, Med/Peds faculty and residents have been exploring some new bridges.



Drs. Betsy Toll and Sue McLaughlin

Dr. Suzanne McLaughlin, Med/Peds Residency Program and Division Director, has been conducting a monthly "Transition Clinic" which brings together skilled professionals from medicine, mental health, social work, and Rhode Island government agencies to help teens with chronic illnesses move from pediatric to adult-oriented care. During childhood, chronic conditions are treated within a pediatric model, which includes the family and a personal style of specialist care, using the pediatrician as communicator. Historically, since many of these patients weren't expected to survive into adulthood, pediatricians often continued to care for those with prolonged survival. However, with recent medical advances, more and more patients with chronic conditions are living well into adulthood and even going on to have their own children (who are sometimes affected by the same conditions). As patients reach more advanced ages, specialists trained to care for adults are often better prepared to provide them with age-appropriate specialty, preventive, and primary care.

Preparing teens and their families to move into the adult medical world can be a complex process. Chronic medical conditions can make the often-tumultuous adolescent years especially

challenging for teens and families. As part of a healthy transition to adulthood, it is important for the teens who are capable of assuming their care to understand and take responsibility for their health issues, find suitable adult primary care and specialty providers, plan for post-high school education or work, navigate and secure government and local services, leave home, undertake financial planning as parents age, receive genetic counseling when appropriate, and address end of life issues, to mention a few common concerns. Med/Peds physicians are well suited to be the primary care physicians for these patients and can act as a stabilizing force for patients and families over the period of transition.

In Transition Clinic, Dr. McLaughlin and her team members have been working with patients and families to learn how to address these issues effectively. Nancy Bowering, RN, provides care coordination and nursing perspective, Jodie Senouillet brings a peer program for adolescents and young adults with chronic conditions, the RI Department of Health sponsors the involvement of an adult services specialist through the RIPIN program, and Dr. Richard Archambault works on the issues arising from transitions in family dynamics. Patients receive a comprehensive needs assessment, emergency and long-term care plans, and medical summaries. Many patients and families use the consult as a start-point for ongoing transition work with their primary and subspecialty providers. They can also receive assistance with needed referrals.

the worlds of primary care with those of mental health. As is typical of primary care physicians in general, Med/Peds doctors at RI Hospital encounter a high prevalence of common mental health problems like anxiety, depression, adjustment to major life changes, and posttraumatic stress disorder as well as the many barriers that prevent patients from reaching the mental health system. In response, Dr. Toll and psychiatrist-colleagues Michelle Rickerby, MD and Jody Underwood, MD have been conducting a study which aims address this ongoing dilemma. They are teaching a group of Med/Peds residents and attending physicians how to do basic mental health interventions in the primary care setting. These doctors are then implementing their new skills with a small number of patients. Both doctors and patients are study subjects. The study aims to look at the clinical efficacy and acceptability of this kind of treatment from the perspectives of both patients and doctors.

Study results are still pending, but informal feedback suggests that those involved have found the undertaking valuable. Doctors cite feeling more comfortable addressing mental health problems with all of their patients. They find the longer counseling visits a welcome counterpoint to typical busy internal medicine visits. They also feel they are able to demystify what goes on in mental health care and to make it more acceptable to patients who may need referral. They have become more comfortable communicating with mental health providers. Patients seem pleased to be able to receive care

# Taking care of patients from diverse backgrounds in hospital and ambulatory settings frequently involves crossing cultural bridges.

Looking back over the first year of sessions, Dr. McLaughlin notes, "It is definitely a learning process for us as well – the needs assessments uncover unique challenges for each patient and family, but provide an opportunity to learn from each patient and share the benefits with others. The key is having all of the information in one room and the knowledge of all the specialists who participate in clinic – this gives families a lot of options to develop the best transition plan for them."

In a second bridge-building endeavor, Dr. Elizabeth Toll has been working to connect for emotional problems from the doctor who already knows them well and find the visits therapeutic. The Med/Peds study subjects have enjoyed collaborating with RIH psychiatrists. "We hope the study will help participants feel more comfortable integrating primary care and mental health care, an important concept of the medical home. We also believe this kind of work strengthens some of the skills that have always belonged to primary care physicians – forging strong doctor-patient relationships, listening actively, and understanding patients as people beyond their medical concerns," says Dr. Toll.

# **Department of Medicine Full Time and (Research) Appointments**

## **Full Time Appointments**

## **Memorial Hospital**

Hematology/Oncology Adam Olszewski, MD Assistant Professor

### **Miriam Hospital**

Infectious Diseases Adrian Gardner, MD, MPH Assistant Professor (Research)

Aadia Rana, MD Assistant Professor (Research)

Xiaoli Tang, PhD Assistant Professor (Research)

## **Rhode Island Hospital**

Cardiology Dmitry Terentyev, PhD Assistant Professor (Research)

Hematology/Oncology Kimberly Perez, MD Assistant Professor

Nephrology Maroun Azar, MD Assistant Professor

Rheumatology Anthony Reginato, MD Assistant Professor

## **Full Time Faculty Promotions**

### **Memorial Hospital**

General Internal Medicine Jennifer Clarke, MD Associate Professor, RST

#### **Rhode Island Hospital**

Cardiology Kristin Ellison, MD Associate Professor, TST

Peng Zhang, MD Assistant Professor (Research)

## **Department of Medicine Grand Rounds**

## February 8, 2011

Emergency Medicine Update "Transforming Translational Research in Emergency Medicine"

**Gregory D. Jay, MD, PhD**, Attending Physician, Emergency Medicine, Rhode Island Hospital; Professor in Emergency Medicine, Professor in Medicine (Research Scholar), Professor in Engineering (Research), Associate Chair for Research, Emergency Medicine, The Warren Alpert Medical School of Brown University

Objectives: At the conclusion of this conference, participants should be able to: discuss some of the critical research topics in Emergency Medicine practice including those in subspecialty areas such as Toxicology and Sports Medicine; and recognize that translational research in Emergency Medicine pertains to early goal directed therapies and intervention.

## February 15, 2011

Morbidity & Mortality Conference "An 85-year-old man with weakness and fever"

Presenter: Kathryn O'Donnell, MD, Hospitalist Medicine

## Panelists: James Klinger, MD, Pulmonary & Critical Care Medicine; Leonard Mermel, DO, Infectious Diseases; Nicholas Califano, MD, Gastroenterology

Objectives: At the conclusion of this conference, participants should be able to: identify cases that demonstrate approach to complex medical problems; discuss cases that have QA/QI issues in their implications for individual caregiver and system improvement; and recognize cases that illustrate important epidemiologic, ethical, or professional challenges.

February 22, 2011 CANCELED

March 1, 2011 Morbidity & Mortality Conference

## March 8, 2011

**Psychiatry Update** Jody Underwood, MD, The Warren Alpert Medical School of Brown University

## March 15, 2011 Morbidity & Mortality Conference

March 22, 2011

**General Internal Medicine Update** 

Susan Oliverio, MD, The Warren Alpert Medical School of Brown University

Wen-Chi Wu, MD, The Warren Alpert Medical School of Brown University

## March 29, 2011

"Counseling & Psychotherapy in Primary Care: One Path Back to Our Role as Healers"

Elizabeth Toll, MD, The Warren Alpert Medical School of Brown University

## April 5, 2011

## Neurology Update

**Brian Ott, MD,** The Warren Alpert Medical School of Brown University Henry Querfurth, MD, The Warren Alpert Medical School of Brown University

## April 12, 2011

**Morbidity & Mortality Conference** 

April 19, 2011 Morbidity & Mortality Conference

## April 26, 2011

**Infectious Diseases Update** 

To request reasonable accommodation for a disability, please contact the Rhode Island Hospital CME office at (401) 444-4260. This is a live format activity.

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