2012 SPARC Conference:
Building Your Academic Portfolio

June 21, 2012
Caspary Auditorium
The Rockefeller University
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MESSAGE FROM THE TRI-INSTITUTIONAL CONFERENCE CHAIR:

Bernice B. Rumala, Ph.D.

On behalf of the SPARC program committee, I am pleased to welcome you to the second annual Achieving Successful and Productive Academic Research Careers (SPARC) Conference. The theme for this year’s conference, building your academic portfolio, will feature ways to enhance your portfolio through mentoring, networking, disseminating, publishing, and obtaining grants. The SPARC initiative was conceived in 2010 in direct response to the NIH’s call for a vigilant response to the underrepresentation of women and racial and ethnic minorities in academic research, faculty, and leadership positions. This initiative is a collaborative effort among diversity leaders at The Rockefeller University, Weill Cornell Medical College, and Memorial Sloan Kettering Cancer Center. The overall purpose of this initiative is to provide a forum where members of traditionally underrepresented groups in all stages of their academic research careers, whether they are students, residents, fellows, faculty, or administrators can connect in a supportive environment. Our goal is to provide opportunities for participants to network and develop potential research collaborations or identify potential mentors as well as hear about the experiences of other academic researchers, faculty and senior administrators. We also hope that this will serve as a launching pad for similar initiatives across other institutions.

The Rockefeller University Center for Clinical and Translational Science is generously sponsoring the webcasting of this conference for our online audience. For those who attended last year’s conference, welcome back. For those who are attending for the first time both in-person and online via webcast, we hope that you will find the information and networking to be valuable as you progress with your career interests.

Best Regards,

Bernice B. Rumala, PhD
Chair, 2012 SPARC Conference
The Rockefeller University
June 13, 2012

A letter from The Rockefeller University President Marc Tessier-Lavigne to the participants of the 2012 SPARC Diversity Conference

Dear Participants,

It is my pleasure to welcome you to The Rockefeller University for the 2012 SPARC Diversity Conference.

The Rockefeller University, like many of our sister institutions in New York City, depends on a diverse workforce to drive the engine of innovation and discovery. We work side by side a rich mix of races and cultures in all of our functions, from support and administrative staff to students, postdocs, and research faculty. However, the proportion of women and underrepresented minorities in the sciences decreases when we focus narrowly on tenure-track and tenured faculty. The lack of gender and racial diversity at this level is an unfortunate fact of academic life throughout the sciences at institutions across the country, but it is not acceptable. We need to do more to encourage women and underrepresented minority scientists to pursue careers in science.

Why is this important? First, it is a matter of fairness, of making sure that we create a level playing field for all aspiring scientists, whatever their background. But it's also a matter of effectiveness. Diverse teams of researchers are crucial for solving our most complex problems. As the Pulitzer Prize winner Walter Lippmann wrote, “Where all think alike, no one thinks at all.” Scientists from diverse backgrounds bring with them a diversity of experiences and ideas that helps cut through the preconceived notions and biases that we all bring with us.

As president of The Rockefeller University, I am committed to recruiting the best scientists regardless of race or gender. For this to be a reality, we need to remove all obstacles to enable talented women and underrepresented minority candidates to pursue their dream of a career in the sciences. I therefore fully support the efforts of the Tri-Institutional SPARC Diversity Program, which seeks to address the underrepresentation of women and racial/ethnic minorities in the academic research and faculty pipeline. Thank you for your leadership towards this important goal.

Yours sincerely,

Marc Tessier-Lavigne
President, The Rockefeller University
Dear Scientists and Trainees,

It is my sincere pleasure to welcome you to the campus of the Rockefeller University for the 2nd Annual Achieving Successful and Productive Academic Research Careers (SPARC) Conference. We proudly join with the diversity programs at Weill Cornell and Memorial Sloan-Kettering Cancer Center to encourage and support academic research investigators from traditionally underrepresented racial and ethnic minority groups.

As part of its core mission, The Rockefeller University Center for Clinical and Translational Science (CCTS) fosters collaborations between researchers and community partners to improve the health of individuals and communities. The leadership of the Rockefeller University CCTS is strongly committed to maximizing the bidirectional opportunities for clinical and translational research, and seeks to foster a climate of diversity and multiculturalism within the research community.

The ultimate aim of Rockefeller University’s diversity initiative is to increase the number of superbly trained, talented, dedicated scientists engaged in translational research to meet the health challenges of local communities and of society at large. As a result, I am delighted that you have chosen to attend the 2012 SPARC Conference and hope you find the program to be both informative and inspiring.

Best regards,

Barry S. Coller, M.D.
David Rockefeller Professor of Medicine
Head, Allen and Frances Adler Laboratory of Blood and Vascular Biology
Physician-in-Chief, Rockefeller University Hospital
Vice President for Medical Affairs

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15th June 2012

Dear 2012 SPARC Conference participant:

As the Dean and Provost for Medical Affairs of Weill Cornell Medical College, I am delighted to welcome you to this year’s Tri-Institutional Conference on Achieving Successful and Productive Academic Research Careers. The SPARC Conference is a tremendous source of information and networking opportunities that will be invaluable as you develop your research career.

SPARC is a part of a long tradition of diversity initiatives at Weill Cornell Medical College and Cornell University that continues to the present day. Our leadership is strongly committed to the values behind SPARC, and we believe in taking measurable steps to promote diversity and inclusion among our students, fellows, faculty, administration, and extended community. In 2009, the Office of Faculty Diversity was formed with the purpose of creating leadership roles that develop and sustain a diverse faculty at the Medical College. Diversity and inclusion are essential to the core mission of education at Weill Cornell.

SPARC is a wonderful example of our institutional commitment to these goals, as well as a forum for individual perspectives and connections that can enrich and develop your academic careers. SPARC also provides a unique opportunity for Weill Cornell Medical College, The Rockefeller University, and Memorial Sloan-Kettering Cancer Center to collaborate toward a common goal of increasing diversity in research, academic medicine, and leadership positions within academic health centers and research institutions. I encourage you to take full advantage of the opportunities offered, and enjoy the conference.

Yours sincerely,

Laurie H. Glimcher, MD
The Stephen & Suzanne Weiss Dean
Provost for Medical Affairs
Weill Cornell Medical College
June 21, 2012

Dear 2012 SPARC Diversity Conference Participant,

As President and CEO of Memorial Sloan-Kettering Cancer Center, I want to welcome you to the second annual Tri-Institutional Conference: Achieving Successful and Productive Academic Research Careers. I was very excited to read about the theme of this year’s conference, Building Your Academic Portfolio, and am certain that you will leave with useful information on effective strategies to advance your career in academic medicine and scientific research.

Memorial Sloan-Kettering Cancer Center (MSKCC) is committed to the goals of SPARC, the Tri-Institutional collaboration formed to address the underrepresentation of women and racial and ethnic minority investigators in academic research. In 2005, we created the Office of Diversity Programs in Clinical Care, Research, and Training, and the Program for Women Faculty Affairs in the Office of President to specifically work towards developing programs to address these disparities. We support numerous clinical and research pipeline programs for women and underrepresented minorities, actively recruit and support trainees and faculty from these groups to conduct research at our institution, and support research designed to understand and eliminate cancer health disparities experienced by underserved populations.

The SPARC initiative is a wonderful example of how the Tri-Institutional network of MSKCC, Weill Cornell Medical College, and Rockefeller University can work together to improve gender and racial diversity in the field of science. Best wishes for an enjoyable and productive conference, and I look forward to our future collaborations as we work towards achieving our mutual goals.

Sincerely,

Craig B. Thompson, M.D.
2012 SPARC Program Committee

Bernice B. Rumala, Ph.D., M.A., Ed.M., M.Phil.
Conference Chair, The Rockefeller University

Carla Boutin-Foster, M.D.
Weill Cornell Medical College

Peter Broadhead
Memorial Sloan-Kettering Cancer Center

Carol Brown, M.D.
Memorial Sloan-Kettering Cancer Center

Salihah Dick, M.D./Ph.D. candidate
Tri-Institutional MD/PhD Program

Teresa Evering, M.D.
The Rockefeller University, Aaron Diamond AIDS Research Center

Ayana Hazeley
The Rockefeller University

Fred Johnson, B.S.
Memorial Sloan-Kettering Cancer Center

Nirva Kudyan, B.A.
Weill Cornell Medical College

Nicole Ramsey, M.D./Ph.D. Candidate
Tri-Institutional MD/PhD Program

Dennis Spencer, M.D./Ph.D. Candidate
Tri-Institutional MD/PhD Program

Melanie Steele, M.P.H.
Memorial Sloan-Kettering Cancer Center

Elizabeth A. Wilson-Anstey, M.A.
Weill Cornell Medical College
Carol L. Brown, MD, FACOG, FACS

Dr. Brown is a board-certified gynecologic oncologist who, for more than 15 years, has used her skills as a surgeon to provide high-quality and compassionate care to women with ovarian, uterine, cervical, and vulvar cancer at Memorial Sloan-Kettering Cancer Center. She works to improve the quality and delivery of cancer care to women on a national level through healthcare policy and advocacy activities. She holds committee positions including Chairperson of the New York State Department of Health Ovarian Cancer Information Program Advisory Council, Advisor for Special Populations for the Gynecologic Oncology Group, Chair of the Government Relations Committee of the Society of Gynecologic Oncologists, and Delegate to the American Medical Association, where she is also Chair of the Cancer Caucus. In addition to taking care of women with cancer, her career is focused on the reduction and elimination of cancer health disparities experienced by medically underserved populations; and promoting public policy to increase awareness, improve care, and increase research funding for gynecologic and other cancers both locally and nationally.

Carla Boutin-Foster, M.D.

Dr. Carla Boutin-Foster is an Associate Professor of Medicine and Public Health at Weill Cornell Medical College, and Director of the Center of Excellence in Disparities Research and Community Engagement (CEDREC). She graduated from SUNY Downstate Medical College and completed her residency in Internal Medicine at New York-Presbyterian Hospital, as well as an AHRQ fellowship at Weill Cornell. Dr. Boutin-Foster’s research focuses on behavioral interventions for chronic disease, particularly cardiovascular disease and obesity, in health disparities populations. She specializes in community-academic partnerships, and in implementing clinical trials in community-based settings. Dr. Boutin-Foster is the governor-appointed chair of the Minority Health Council of the New York State Department of Health’s Office of Minority Health. She also serves on the NYS Public Health and Health Planning Committee, and is a member of the Health Disparities Work Group of the NYS Medicaid Redesign Team. Dr. Boutin-Foster leads many initiatives to increase diversity at Weill Cornell, as an officer of the Office of Faculty Diversity, as Associate Director for the Office of Multicultural and Minority Health, as the Chair of the Diversity Committee, appointed by the Dean, and in recruiting diverse residents in the Department of Medicine. She mentors students in Cornell’s Travelers Summer Research Fellowship Program and is a faculty mentor in Weill Cornell’s Master’s Program in Clinical Epidemiology and Health Services.

Salihah Dick, M.D./Ph.D. Candidate

Salihah Dick graduated with highest honor from Barry University in 2005 and completed a year of post-baccalaureate biomedical research at Vanderbilt University in 2006 prior to joining the Weill Cornell/Rockefeller/Sloan Kettering Tri-Institutional MD-PhD Program. Her thesis research explores the metabolic heterogeneity of non-small cell lung cancer (NSCLC). Salihah is committed to mentorship and service and has mentored undergraduate students through the Gateways to the Laboratory and Prep for Prep Summer Programs. She is actively involved in outreach opportunities through the SNMA, Mentoring in Medicine and FACES Programs.

Teresa Evering, M.D.

Dr. Evering is an Associate Attending Physician at the Rockefeller University Hospital and Research Scientist at the Aaron Diamond AIDS Research Center. Dr. Evering received her MD from Weill Cornell Medical College, completed a residency in Internal Medicine at Columbia University Medical Center and an Infectious Diseases Fellowship at the Albert Einstein College of Medicine. She joined the Rockefeller University Clinical Scholars program in 2007, graduating with a Center for Clinical and Translational Science Master’s degree in 2010. In May 2010, she was awarded a Mentored Clinical Scientist Research Career Development Award (K08) from the NIMH. Her current research is focused on the study of HIV-1-associated neurocognitive disorders and the role of HIV-1 evolution in neuroadaptation.
Nicole Ramsey, M.D./Ph.D. Candidate

Nicole Ramsey, has returned home to become an MD-PhD student in the Tri-Institutional MD-PhD Program and is currently in her fifth year of the program. Prior to this, she graduated from Howard University with a Bachelor of Science. Nicole is committed to diversifying the pool of physicians and scientists. She participates in mentoring and teaching through several student organizations, especially Motivating Action through Community Health Outreach, where she serves as co-Program Director. Her awards and professional memberships include UNCF/Merck Graduate Dissertation Fellowship, Laureate Scholarship, David McLaughlin Undergraduate Research Award, Alpha Kappa Alpha Sorority, Inc., and Sigma Xi Scientific Research Society.

Melanie Steele, M.P.H.

Melanie Steele is a Program Administrator and Public Health Professional, who has an expertise in hospital administration and health education with a focus on addressing cancer health disparities in minority and medically underserved populations. She has spent the majority of her professional career working for Memorial Sloan-Kettering Cancer Center, the world’s oldest and largest private cancer center. Since 1992, she has worked in various departments, to support the institutional goals of patient care, research, and education. She received her undergraduate degree in Hospital Administration, from Eastern Michigan University, and her Masters in Public Health from Columbia University, Mailman School of Public Health.

Dennis Spencer, M.D./Ph.D. Candidate

Dennis J. Spencer, MD-PhD (candidate) obtained a Bachelor of Science degree in Biology from Morehouse College in Atlanta, Georgia and is currently a biomedical fellow in the Tri-Institutional MD-PhD Program. He serves as a Co-Investigator with the Building the Next Generation of Academic Physicians (BNGAP) Initiative - a national collaboration to diversify the academic medicine workforce. Dennis also serves as co-Principal Investigator of the Student National Medical Association’s Physician Researcher Initiative (PRI) procuring and managing the initiative’s 4-year NIH R13 grant. Within the Laboratory of Bacterial Pathogenesis at The Rockefeller University, his Ph.D. thesis uses a translational approach to better understand Group A Beta-Hemolytic Streptococcal-induced tonsillitis in collaboration with the Department of Otorhinolaryngology (ENT) at Weill Cornell Medical College. Dennis plans to pursue residency training in ENT surgery while maintaining a research interest in pediatric infectious diseases.

Bernice B. Rumala, Ph.D., M.A., Ed.M., M.Phil., 2012 SPARC Conference Chair

Dr. Rumala conducts community engaged translational research as part of the community engagement core of The Rockefeller University Center for Clinical and Translational Science. She was also appointed as Chair and leads the Tri-institutional Achieving Successful Productive Academic Research Careers (SPARC) diversity initiative in collaboration with diversity leaders at Weill Cornell Medical College and Memorial Sloan Kettering Cancer Center. She earned a PhD degree from Columbia University, a certificate in Clinical and Translational Science at The Rockefeller University, and participated in research fellowship programs at The National Institutes of Health and Massachusetts General Hospital/Harvard Medical School. Her research interests are in the area of social capital and social networking for health and education equity. She is passionate about and is involved in leading several science and health professions pipeline mentoring programs from middle school through faculty development. In these roles she impacts translational research, public health, education equity, health equity, and organizational change. Her goals are to successfully progress through the faculty pipeline and dually attain a senior leadership appointment within an academic health center to affect micro and macro policy changes.
Bernice B. Rumala, Ph.D., M.A., Ed.M., M.Phil., 2012 SPARC Conference Chair

Dr. Rumala conducts community engaged translational research as part of the community engagement core of The Rockefeller University Center for Clinical and Translational Science. She was also appointed as Chair and leads the Tri-institutional Achieving Successful Productive Academic Research Careers (SPARC) diversity initiative in collaboration with diversity leaders at Weill Cornell Medical College and Memorial Sloan Kettering Cancer Center. She earned a PhD degree from Columbia University, a certificate in Clinical and Translational Science at The Rockefeller University, and participated in research fellowship programs at The National Institutes of Health and Massachusetts General Hospital/Harvard Medical School. Her research interests are in the area of social capital and social networking for health and education equity. She is passionate about and is involved in leading several science and health professions pipeline mentoring programs from middle school through faculty development. In these roles she impacts translational research, public health, education equity, health equity, and organizational change. Her goals are to successfully progress through the faculty pipeline and dually attain a senior leadership appointment within an academic health center to affect micro and macro policy changes.

John Paul Sanchez, M.D., M.P.H.

Dr. Sanchez has focused on the personal and professional development of health and science learners throughout the pipeline from pre-medical students to residents. In his role as a Core Faculty Member of Einstein’s Hispanic Center of Excellence he has worked to increase high school and college student interest in health professional careers and medical student retention and professional development. Between 2009-2011 he served as Chairperson of the Council of Residents, of the National Hispanic Medical Association and organized leadership, mentorship, and professional development programming for Latino residents and fellows across the country. Currently he serves as Principal Investigator, of the Building the Next Generation of Academic Physicians Initiative, a collaboration between Einstein and the Diversity Policy and Programs Unit of the AAMC, and in conjunction with numerous institutions (i.e. New Jersey Medical School) and national organizations (i.e. the Student National Medical Association) to heighten awareness and interest in academic medicine careers among diverse medical students and residents. He is also a practicing Emergency Medicine physician at Montefiore Medical Center and is Chairperson of Einstein’s LGBT Steering Committee.

Carla Boutin-Foster, M.D.

Dr. Carla Boutin-Foster is an Associate Professor of Medicine and Public Health at Weill Cornell Medical College, and Director of the Center of Excellence in Disparities Research and Community Engagement (CEDREC). She graduated from SUNY Downstate Medical College and completed her residency in Internal Medicine at New York-Presbyterian Hospital, as well as an AHRQ fellowship at Weill Cornell. Dr. Boutin-Foster’s research focuses on behavioral interventions for chronic disease, particularly cardiovascular disease and obesity, in health disparities populations. She specializes in community-academic partnerships, and in implementing clinical trials in community-based settings. Dr. Boutin-Foster is the governor-appointed chair of the Minority Health Council of the New York State Department of Health’s Office of Minority Health. She also serves on the NYS Public Health and Health Planning Committee, and is a member of the Health Disparities Work Group of the NYS Medicaid Redesign Team. Dr. Boutin-Foster leads many initiatives to increase diversity at Weill Cornell, as an officer of the Office of Faculty Diversity, as Associate Director for the Office of Multicultural and Minority Health, as the Chair of the Diversity Committee, appointed by the Dean, and in recruiting diverse residents in the Department of Medicine. She mentors students in Cornell’s Travelers Summer Research Fellowship Program and is a faculty mentor in Weill Cornell’s Master’s Program in Clinical Epidemiology and Health Services.
Olaf Sparre Andersen

Olaf Sparre Andersen received his M.D. from University of Copenhagen, Denmark, in 1971. After post-doctoral training in biophysics at the University of Copenhagen and The Rockefeller University, he joined the faculty of Cornell University Medical College (now Weill Cornell Medical College) in 1973. He became Professor of Physiology and Biophysics in 1982. Dr. Andersen has been Director of the Weill Cornell/Rockefeller/Sloan-Kettering Tri-Institutional MD-PhD Program since 1996. During his tenure, the Program has grown by 50% with much of the growth resulting from an increase in the number of students who are members of underrepresented groups. Much of the Program’s success in recruiting and retaining, minority students can be traced to the Program’s Gateways to the Laboratory Program, a 10-week summer research program that “graduated” its 18th class this August. 218 students have graduated from the Gateways Program, 9 Gateways alumni are enrolled in the MD-PhD Program and two alumnae have graduated from the Tri-Institutional MD-PhD Program. Dr. Andersen’s research focuses on the biophysical properties of ion channels, and the energetic coupling between membrane protein function and lipid bilayer properties. He is a member of The Royal Danish Academy of Sciences (1996), recipient of the K. S. Cole Medal from the Biophysical Society (1999) and Honorary Fellow of the Weill Cornell Medical College Alumni Association. He served as Editor-in-Chief of the Journal of General Physiology (1996-2008) and as President of the Society of General Physiologists (1997-98). He has been active in the career development and support of physician-scientists at American Heart Association’s New York City Affiliate. He served as Chairman of the Affiliate’s Research Council (1983 to 1989) and as President (1992-93). He is past-President of the National Association of MD-PhD Programs (2003-05), and founding Chair of the GREAT Group’s MD-PhD Section (2004-05).

Brian Lamon, Ph.D.

Dr. Brian Lamon is trained as a pharmacologist and currently an Assistant Professor in the Department of Pathology at Weill Cornell Medical College. Dr. Lamon’s research focuses on the pathogenesis of atherosclerosis, with particular interest on the role in which inflammatory processes contribute to this and other vascular diseases. In 2010, Dr. Lamon was appointed Assistant Dean of Research Development. In this role, Dr. Lamon has implemented a variety of services and developed resources aimed to assist faculty members successfully identify and compete for non-traditional extramural research funding. Dr. Lamon is also the Director of Medical Student Research.

Laura Liberman, M.D.

Since joining the Memorial Sloan-Kettering faculty in 1990, Dr. Laura Liberman’s clinical work has been in the breast imaging section of the Department of Radiology, where she interpret mammograms, conduct breast ultrasound examinations, and breast MRI studies, and perform breast interventional procedures. She has also served as director of breast imaging research programs. Her research has focused on image-guided breast needle biopsies, which provide a less invasive and less expensive alternative to surgery for diagnosing breast lesions. She has been the director of the Program for Women Faculty Affairs at Memorial Sloan-Kettering since it was established in the fall of 2005. The Program for Women Faculty Affairs is a comprehensive effort in areas of recruitment, hiring, promotion, retention, and mentorship; it involves optimizing the work environment for women physicians and scientists and establishing criteria to monitor success. She is currently investigating targeted interventions to foster women faculty career development. Her book, I Signed as the Doctor, was published in 2009. The book details her treatment for malignancy at Memorial Sloan-Kettering after being a doctor here for almost 20 years, an experience that she describes as resembling being in a play in which you know all the lines but you’re reading the wrong part. Her hope is that her dual perspective as a doctor at a cancer hospital and as a cancer survivor will inspire general readers, give insight to those coping with cancer, and help physicians to be better doctors.
**PROGRAM**

11:15 – 11:30  **Poster set-up**

11:30 – 12:25  **Registration, Lunch, Poster Session and Networking**

12:25 – 12:40  **About SPARC**
   
   *Bernice B. Rumala, PhD, M.A., Ed.M., M.Phil., Conference Chair, The Rockefeller University*

12:40 – 1:00  **The role of mentoring in building your academic portfolio**
   
   *John Paul Sanchez, M.D., M.P.H., Albert Einstein College of Medicine*

1:00 – 1:30  **What is the strength of your networks?: Building your Academic Portfolio through developing networks**
   
   *Bernice B. Rumala, PhD, M.A., Ed.M., M.Phil., The Rockefeller University*

1:30 – 2:00  **Moving beyond promotions: Why is dissemination important?**
   
   *Carla Boutin-Foster, MD, MS, Weill Cornell Medical College*

15 minute break

Buffet lunch ends at 2:15 PM

The remaining panels will take place in the Caspary Auditorium

2:20 – 4:00  **Dissemination (Caspary Auditorium)**

2:20 – 3:15  **Panel 1: Productivity in publishing papers**

   •  **How to write a winning abstract**, Laura Liberman, MD, Memorial Sloan-Kettering Cancer Center

   •  **Manuscripts: What are journals looking for?**, Olaf Andersen, MD, PhD, Weill Cornell Medical College

   •  **Writing groups and negotiating authorship**, Dennis J. Spencer, MD/PhD candidate, Tri-institutional MD-PhD Program (Weill Cornell/The Rockefeller University/Memorial Sloan Kettering Cancer Center)

   •  **Publishing from a student perspective**, Nicole Ramsey, MD/PhD candidate, Tri-Institutional MD-PhD Program (Weill Cornell/The Rockefeller University/Memorial Sloan Kettering Cancer Center)
Panel 2: Media Communications – communicating your research to a broader audience through the media

- The elevator pitch – putting your best self forward in ten minutes or less, Joe Bonner, Director of Communications and Public Affairs, The Rockefeller University
- “Do’s and Don’ts” of communicating with the media, Christine Hickey, Director of Communications, MSKCC.
- What does your online presence say about your academic Portfolio: Working with your public affairs office, Myrna Manners, Vice President and Chief Public Affairs Officer, New York-Presbyterian Hospital / Vice Provost, Weill Cornell Medical College Office of Public Affairs.

Awards: SPARC Mentoring Excellence Award and Junior Investigator Award

15 minute break
Refreshments

Panel 3: The art, science and politics of good grantsmanship

- Grants Overview, Olaf Andersen, MD
- K awards, Teresa Evering, MD, The Rockefeller University, Aaron Diamond; Ana Krieger, MD, Weill Cornell Medical College
- Minority supplements, Ginger Winston MD, Weill Cornell Medical College
- Loan Repayment Program (LRP), Jonathan Zippin, MD, PhD; Carla Boutin Foster, MD
- Harold Amos awards, Linnie Golightly, MD, Weill Cornell Medical College
- Foundations, Brian Lamon, Ph.D., Weill Cornell Medical College
- Working with your NIH program officers, Beverly Watkins, PhD, Weill Cornell Medical College; Joe Osborne, MD, Weill Cornell Medical College
- R awards (R01, R23), Olaf Andersen, MD; Carla Boutin-Foster, MD, MS, Weill Cornell Medical College; Kenneth Olden, PhD, Founding Dean, CUNY School of Public Health

6:00 – 6:30 Summary and Evaluations, Networking and Poster Viewing

Networking reception co-sponsored by the Minority Graduate Students Network

CME/CEU Credit: Memorial Sloan-Kettering Cancer Center designates this live activity for 3.0 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity. Certificates are available at the registration desk after the conference.
**ABSTRACTS**

**BASIC SCIENCE**

Parasympathetic stimulation via the vagus nerve prevents systemic organ dysfunction by abrogating gut injury and lymph toxicity in trauma and hemorrhagic shock

Gal Levy

Authors: Gal Levy MD; Jordan E Fishman MD, MPH; Dazhong Xu MD, PhD; Benjamin TJ Chandler MD; Eleonora Feketova MD; Wei Dong MD, Yong Qin MD, Vamsi Alli MD, Luis Ulloa PhD, Edwin A Deitch MD, FACS Corresponding author: Gal Levy MD, levyga@umdnj.edu, phone: 973-972-1536, fax:973-972-4409, UMDNJ-NJMS 180 South Orange Ave, Suite MSB G506, Dept of General Surgery, Newark, NJ, 07103

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Abstract: Shock Society New Investigator Competition - June 10, 2012 Objective: We tested if vagus nerve stimulation (VNS) would prevent gut injury, mesenteric lymph toxicity and systemic MODS following trauma-hemorrhagic shock (T/HS). Methods: Four groups of experiments were performed. The first tested whether vagus nerve stimulation (5V for 10 min) would protect against T/HS-induced increases in gut and lung permeability as well as neutrophil priming. In the second experiment, mesenteric lymph was collected from rats subjected to T/HS or T/SS (Sham experiment, mesenteric lymph was collected from rats subjected to sham experience, mesenteric lymph was collected from the sham-VNS T/HS rats, the mesenteric lymph from the VNS T/HS rats, did not cause lung injury, neutrophil priming or loss of RBC deformability (p<0.05) when injected into naïve mice. Removal of the spleen did not prevent the protective effects of VNS on gut or lung injury after T/HS. Similar to vagus nerve stimulation, the administration of nicotine, also protected the gut from injury after T/HS. Conclusion: VNS prevents T/HS-induced gut injury, lung injury, neutrophil priming and the production of biologically active mesenteric lymph. This protective effect of VNS was not dependent on the spleen but appeared to involve a cholinergic nicotinic receptor, since its beneficial effects could be replicated with nicotine.

Role of AMPA receptor GluA1 phosphorylation and trafficking in acquisition, extinction, and reinstatement of cocaine conditioned place preference

Kathryn Schierberl

Weill Cornell Medical College

Authors and affiliations: Kathryn C. Schierberl1, 2, Richard Huganir3 and Anjali M. Rajadhyaksha1, 2

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Abstract: Plastic changes in AMPA receptor (AMPAR) localization at glutamatergic synapses in the mesoaccumbal dopaminergic pathway are involved in long-lasting cocaine-induced behavioral responses. Specifically, we have shown that a cocaine-induced increase in cell surface levels of the GluA1 subunit of AMPARs underlies expression of cocaine-induced psychomotor sensitization. This change in GluA1 localization is accompanied by an increase in phosphorylation of this subunit at its serine 831 (S831) residue and is dependent on Cav1.2 L-type calcium channel (LTCC)-activated CaM kinase II (CaMKII) and extracellular signal-regulated kinase 2 (ERK2). In parallel, we have shown that a decrease in GluA1 cell surface levels, accompanied by a decrease in phosphorylation of GluA1 at serine 845 (S845) occurs in the dorsal striatum. To further probe the role of phosphorylation of both of these GluA1 sites in a cocaine conditioned place preference (CPP) paradigm that includes acquisition, and an extinction and reinstatement phase, we have utilized mice with a substitution of an amino acid at the PKA (S845A) and CaMKII (S831A) phosphorylation sites on GluA1. Our preliminary studies find that wild-type, heterozygous and homozygous S831A mutant mice similarly acquire cocaine CPP. However, S831A homozygous mutant mice fail to extinguish the place preference, suggesting that this phosphorylation site may be critical for mediating extinction of a drug-induced place preference. We additionally
Femtomolar Transition State Analogue Bind to 5’-Methylthioadenosine/S-adenosylhomocysteine Nucleosidase with Favorable Enthalpy and Entropy

Keisha Thomas
Albert Einstein College of Medicine

Authors: Keisha Thomas, Vern L. Schramm
Abstract: 5’-Methylthioadenosine/S-adenosylhomocysteine nucleosidase (MTAN) catalyzes the hydrolytic cleavage of adenine from methylthioadenosine (MTA). Inhibitor design informed by transition state analysis has developed femtomolar inhibitors for MTANs. Analyses of the energetic contributions towards binding using isothermal calorimetry (ITC) have highlighted highly favorable enthalpy and entropy values for a combination of distinct MTAN enzymes (E. coli, S. enterica and V. cholerae) and transition state analogues with dissociation constants to the femtomolar range. There is only a modest penalty in entropy for two of sixteen enzyme/inhibitor titrant pairs. Binding of transition state analogues to EcMTAN and SeMTAN was driven by enthalpy while analogue binding to VcMTAN was driven by entropy. A single residue mutation in VcMTAN to match the analogous residue found in EcMTAN and SeMTAN resulted in a shift in the thermodynamic profile of the mutant VcMTAN even further away from that of EcMTAN and SeMTAN. This data supports the hypothesis that residues out of direct contact with the inhibitor contribute to binding forces for these enzymes.

Transformation of chronic lymphocytic leukemia to mantle cell leukemia

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Abstract: This case describes a patient who developed mantle cell lymphoma in the setting of pre-existing chronic lymphocytic leukemia. The patient is a 73-year-old woman who was diagnosed with chronic lymphocytic leukemia (CLL) eight years ago. At initial presentation, she had persistent asymptomatic lymphocytosis ranging from 19,000 to 25,000, with >50% lymphocytes. Peripheral blood cytometry showed a mixture of T- and B-cells positive for CD5, CD19, CD20, CD22, CD23, and CD45. The B cells lacked light chain expression. Based on the diagnosis, and the absence of clinical signs and symptoms, regular follow-up was thought to be her best option. The patient continued to do very well subsequently, despite chronic fatigue, and never required chemotherapy. A few weeks ago, she presented in the clinic with worsening night sweats of about 4-6 months duration, and shortness of breath. CBC showed white count of 325,000 (from 25.4), Hemoglobin 10.3 (from 12.3), platelets 154,000 (from 189,000). Physical
examination revealed hepatosplenomegaly and axillary lymphadenopathy. CT scan showed massive splenomegaly, multiple enlarged retroperitoneal nodes, with involvement in the iliac chain, inguinal regions and mesenteric nodes. Repeat peripheral blood flow cytometry showed CD5+ monoclonal lambda B cells. In addition the cells were positive for CD19, CD20, CD52, and negative for CD23. FISH study showed 82.8% of the cells were positive for the t (11;14) IGH/CCND1 fusion, consistent with the diagnosis of mantle cell lymphoma (MCL). She was treated with rituximab, cyclophosphamide, adriamycin, vincristine and prednisone systemic chemotherapy with improvement in her clinical and hematologic status. Although CLL falls in the differential diagnosis of MCL, the latter is negative for CD23, as was this patient at the time of her clinical progression. In addition the presence of the IGH/CCND1 fusion by FISH analysis is not seen in CLL. Although FISH analysis was not done initially, it is unlikely that her initial presentation reflected de novo mantle cell lymphoma since she was CD23+ and had an asymptomatic period lasting 8 years, which would be quite unusual in mantle cell, but quite typical of CLL. To our knowledge this case represents the first report of transformation of CLL to MCL.

Can a simple urinalysis predict the causative agent and the antibiotic sensitivities?
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Abstract: Objective: 1) To determine whether urinalysis (UA) findings can predict Escherichia E. coli versus non-E. coli urinary tract infection. 2) To determine if empiric antibiotics should be considered based on UA findings Methods: A retrospective chart review of febrile children, younger than two years of age, with culture-proven UTI presenting to the emergency department from January 2004 to December 2007 was conducted. Based on culture, UTI was classified into E. coli and non-E. coli groups. Those groups were compared for gender and UA findings. In addition, antibiotic sensitivities between both groups were compared. A negative UA was defined as (WBC count <5/high power field, negative leukocyte esterase and negative nitrates). Results: Over the study period, medical records of 749 children were reviewed. One hundred forty one (141) were excluded from the analysis due to missing or incomplete information. Data from 608 children were analyzed; 424 were E. coli and 184 were non-E. coli. One hundred eight three (183) (30.1%) had a negative UA and 425 (69.9%) had a positive UA. Positive UA was observed in 82% of E. coli and 41.3% non-E. coli (p<0.001). Gender did not alter the relationship. A review of antibiotic sensitivity patterns demonstrated the superiority of cefazolin (97.0% sensitive in E. coli vs. 77.2% in non-E. coli; p<0.001), cefuroxime (99.0% in E. coli vs. 89.3% in non-E. coli; p<0.001), and nitrofurantoin (100% in E. coli vs. 69.1% in non-E. coli; p<0.001). Conversely, non-E. coli UTIs showed significant sensitivity to trimethoprim/sulfamethoxazole (88.4% vs. 69.3% in E. coli UTI group; p<0.001). Conclusion: Non-E. coli UTIs have a significant association with negative UA compared to E. coli UTIs, regardless of gender. Different antibiotic sensitivities were observed between E. coli and non-E. coli groups and empiric antibiotics should be considered based on UA findings.

An Empirical Evaluation of Array Normalization for Agilent microRNA Expression Arrays
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Abstract: Methods for array normalization have been developed for mRNA expression arrays, such as median normalization and quantile normalization. These methods assume few or symmetric differential expression of markers on the array. The performance of the existing normalization methods need to be reevaluated when applied to microRNA arrays, which consist of a few hundred markers and a reasonable fraction of them are anticipated to have disease-relevance. We empirically examined sources of variations in miRNA array data using a set of Agilent arrays in liposarcoma (n=56) and evaluated normalization methods using Solexa sequence data on a subset of these tumors (n=29) as the gold standard. We found that there is minimum variation between replicate probes for the same target sequence and moderate variation between multiple target sequences for the same miRNA. There is moderately high correlation between Agilent data and Solexa data. Quantile normalization has slightly improved the correlation with Solexa data, as well as the detection of differentially expressed microRNAs both in terms of statistical significance and the direction of change.

DIVERSITY

Women Medical Students’ and Residents’ Interest in Academic Medicine Careers
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Abstract: In the last four decades women students have achieved near parity within medical schools across the United States. Yet, there is a significant shortfall of women who teach medical students and/or lead medical institutions. Mentoring, early scholar and career advancement opportunities for women training in medicine are necessary to enable a full spectrum of diversity and inclusion in academic medicine for education,
research and patient care. It is also evident that women need to identify role models and competent mentors in the early stages of their careers. Is this enough to climb the academic medicine leadership ladder? The Building the Next Generation of Academic Physicians (BNGAP) initiative consists of a group of academic medicine faculty, residents and students whose purpose is to increase diversity in the academic medicine workforce. Our research indicates that 62.4% of women medical students and 84.2% of women residents share an interest in academic medicine careers. How do we establish ground for their successful climb? Significant BNGAP results will be summarized with recommendations to inform diversity and inclusion efforts for the future of women exploring as well as those who have careers in academic medicine.

PUBLIC HEALTH

Oral Health Disparities across the China-North Korea Border: Comparisons between Children/Adolescents in Hunchun, China and Rajin, DPRK

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Abstract: Background: North Korea, also known as the Democratic People's Republic of Korea (DPRK), is currently experiencing systemic failures in its efforts to provide even the most basic of health care services (Amnesty International, 2010). Although the country has one of the world’s lowest levels of per-capita health spending (WHO, 2006), a generalized lack of research makes it difficult to assess its health status. A growing and oft-ignored issue of refugee emigration into Northeast China further complicates accurate analyses. In particular, few studies have addressed North Korea’s oral health status, making it difficult to determine disparities, despite sociopolitical barriers to research. Conclusions: Significant differences were seen in the oral health status of Korean-Chinese and North Korean children. To date, this is the first study to compare oral health disparities between pediatric and adolescent groups on either side of the China-North Korea border. Further studies are warranted to elucidate this disparity, despite sociopolitical barriers to research.

Bringing to light the health needs of African-American men: the Overtown Men's Health Study

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Abstract: Background The harsh intersections of racism and sexism in US society have contorted roles for African-American men and damaged their social ties, thereby contributing to excess morbidity and mortality in communities of color. The Overtown Men’s Health Study is used here as a case study to examine the health needs of African-American men. Methods Men aged 18 years and older who resided in the neighborhood of Overtown within Miami, Florida, USA com-
pleted an in-person survey administered at 15 community sites: 3 housing complexes, 3 rooming houses, 3 commercial sites, 2 abandoned buildings, 1 large and 1 small public park, 1 union hall, and 1 community center. Results The vast majority of respondents (n=129) were identified as Black/African-American (95.3%). Just 9.3% of the men surveyed were currently married, yet over half were fathers (59.7%). Nearly two-thirds (62.8%) of the men in Overtown reported drinking alcohol, and almost half (47.3%) reported smoking cigarettes. Only one of three (33.3%) Overtown men reported having a primary care physician or health practitioner, and only one of five (20.2%) had received dental care in the previous 12 months. A remarkable one of four (25.6%) Overtown men reported having been a victim of police violence, and nearly two-thirds (65.9%) reported having been incarcerated. Conclusions These findings are a call to action issuing from Overtown to other distressed neighborhoods of color within central cities through the USA. Urgent pursuit of measures for reducing social disparities in health for African-American men is ethically compulsory.

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