5th Annual
Department of Medicine
Research Day

Celebrating Research Efforts Across the Department

October 26, 2012
Cox Hall Ballroom
7:45 - 8:00 AM  Registration and Welcome

8:00 - 8:15 AM  Featured Research: Alejandra San Martin, PhD
Assistant Professor, Cardiology
"Role of the Actin Binding Protein Cofilin in the VSMC Response to Mechanical Stress"
2012 Outstanding Citation - Early Career (Basic Science) Award Winner

8:15 - 9:15 AM  Oral Presentations
Moderator: M. Neale Weitzmann, PhD
Associate Professor, Endocrinology

9:15 - 10:00 AM  Poster Session I

10:00 - 10:15 AM  Featured Research: Abhinav Goyal, MD, MHS
Assistant Professor, Cardiology
"Serum Potassium Levels and Mortality in Acute Myocardial Infarction"
2012 Outstanding Citation- Early Career (Clinical) Award Winner

10:15 - 11:15 AM  Oral Presentations
Moderator: Camille Vaughan, MD, MS
Assistant Professor, General Medicine & Geriatrics

11:15 - 11:45 AM  Featured Research: David Stephens, MD
Stephen W. Schwarzmann Distinguished Professor of Medicine
Vice President for Research, WHSC
Director, Division of Infectious Diseases
"Vaccines and the Unvaccinated: the Global Control of Bacterial Meningitis"
2012 Excellence in Research Accomplishment (Clinical) Award Winner
11:45 AM  Group photo

12:00 - 1:00 PM  Lunch

1:00 - 2:00 PM  Keynote Address: Edward Benz, Jr., MD
"The Impact of Genomics on Cancer Research and Care: Implications for General Medical Care"
Richard and Susan Smith Professor of Medicine, Professor of Pediatrics, Professor of Pathology, Harvard Medical School
President and CEO, Dana-Farber Cancer Institute

2:00 - 2:30 PM  Oral Presentations
Moderator: Jyothi Rengarajan, PhD
Assistant Professor, Infectious Diseases

2:30 - 3:15 PM  Poster Session II

3:15 - 3:45 PM  Oral Presentations
Moderator: Jeanie Park, MD, MS
Assistant Professor, Nephrology

3:45 - 4:15 PM  Featured Research: Jeff Sands, MD
Juha P. Kokko Professor of Medicine and Physiology
Executive Vice Chair, Department of Medicine
Director, Division of Nephrology
“Regulation of Renal Urea Transport”
2012 Excellence in Research Accomplishment (Basic Science) Award winner

4:15 PM  Research Accomplishments in the Department of Medicine; Presentation of Research Awards
R. Wayne Alexander, MD, PhD
R. Bruce Logue Professor and Chair
Department of Medicine
An award will be presented at the conclusion of the day for Outstanding Oral Presentation.

1st Session (8:15 - 9:15 AM)

8:15 - 8:30 AM  Marcelo F. Montenegro, Postdoctoral Fellow, Cardiology
Nox4 and H2O2 Mediate Vascular Smooth Muscle Cell Adaptation to Mechanical Stretch

8:30 - 8:45 AM  Samantha M. Yeligar, Postdoctoral Fellow, Pulmonary
Rosiglitazone Attenuates Alcohol-induced Alveolar Macrophage Oxidative Stress and Dysfunction by Down-regulating PPARγ-associated microRNAs

8:45 - 9:00 AM  Mitsi Blount, Assistant Professor, Nephrology
Absence of PKC-alpha Attenuates Lithium-induced Nephrogenic Diabetes Insipidus

9:00 - 9:15 AM  Bindu Chandrasekharan, Research Associate, Digestive Diseases
TNF-α Inhibitors Attenuate Neuropeptide Y (NPY) Expression in the Murine Enteric Nervous System: Implications in Inflammation and Colonic Motility

2nd Session (10:15 - 11:15 AM)

10:15 - 10:30 AM  Kathleen E. McKee, Medical Student, General Medicine & Geriatrics
Adapted Tango Dancing for Parkinson’s Disease (PD) Can Be Safely Delivered in Community-Based Settings

10:30 - 10:45 AM  Jesse T. Jacob, Assistant Professor, Infectious Diseases
Distribution of Pathogens in Central Line-Associated Bloodstream Infections among Patients with and without Neutropenia Following Chemotherapy
2nd Session (cont.)

10:45 - 11:00 AM    Girum E. Mekonnen, Postdoctoral Fellow, Cardiology
                    Elevated Levels of Plasma Soluble Urokinase Plasminogen Activator Receptor is an Independent Predictor of Coronary Microvascular Dysfunction

11:00 - 11:15 AM    Jessica Alvarez, Postdoctoral Fellow, Endocrinology
                    Effects of High-dose Cholecalciferol on Serum Markers of Inflammation and Immunity in Patients with Early Chronic Kidney Disease

3rd Session (2:00 - 2:30 PM)

2:00 - 2:15 PM   Clintoria R. Williams, Postdoctoral Fellow, Nephrology
                 Calcineurin Isoform-Specific Regulation of Nox4

2:15 - 2:30 PM   Anwer K. Habib, Postdoctoral Fellow, Cardiology
                 Metformin Impairs Vascular Endothelial Recovery After Stent Placement in the Setting of Locally Eluted mTOR Inhibitors via S6K Dependent Inhibition of Cell Proliferation

4th Session (3:15 - 3:45 PM)

3:15 - 3:30 PM    Kehmia Titanji, Research Associate, Endocrinology
                  Disruption of B Cell Function Mediates HIV-induced Accelerated Bone Loss in Humans

3:30 - 3:45 PM    Ronnie Ramadan, Postdoctoral Fellow, Cardiology
                  The Degree of Microvascular Constriction during Mental Stress Predicts the Development of Mental Stress-Induced Myocardial Ischemia
Awards will be presented at the conclusion of the day for 1st, 2nd, and 3rd Place Clinical Poster and 1st, 2nd, and 3rd Place Basic Science Poster.

1. **Bum-Yong Kang**, Research Associate, Pulmonology  
   **PPARγ Activation Reduces Hypoxia-Induced Endothelin-1 Expression Through miR-98**

2. **Bum-Yong Kang**, Research Associate, Pulmonology  
   **miR-27a and PPARγ Mediate Mutual Repression in the Hypoxic Pulmonary Vasculature**

3. **Matthew B. Hudson**, Postdoctoral Fellow, Nephrology  
   **Calcineurin-NFAT Signaling Regulates miR-23a during Skeletal Muscle Atrophy**

4. **Dong Ju Son**, Postdoctoral Fellow, Cardiology  
   **The Mechanosensitive microRNA-712, Induced by Disturbed Blood Flow in Endothelium, Plays a Key Role in Atherosclerosis**

5. **Bum-Yong Kang**, Research Associate, Pulmonology  
   **miR-98 Reduces Nicotine-Induced Nerve Growth Factor (NGF) Expression in Murine Lung Fibroblasts**

6. **Shadi S. Yarani**, Internal Medicine Resident  
   **Inhibition of miRNA-375 Reduces the Palmitate-induced Apoptosis in Enteric Neurons**

7. **Myra E. Woodworth-Hobbs**, Graduate Student, Nephrology  
   **Docosahexaenoic Acid Has Beneficial Effects on Saturated Fatty Acid-induced Muscle Atrophy**

8. **Rebecca D. Levit**, Postdoctoral Fellow, Cardiology  
   **Cellular Encapsulation of Mesenchymal Stem Cells Enhances Cardiac Repair in a Rat Model of Myocardial Infarction**

9. **Shin-Jeong Lee**, Postdoctoral Fellow, Cardiology  
   **Lymphatic Neovascularization and Enhanced Wound Repair by Lymphatic Endothelial Lineage Cells Differentiated from Human Pluripotent Stem Cells**
10. Jau-Yi Li, Instructor, Endocrinology
   *PTH Expands Short-Term Hemopoietic Stem Cells through T Cells*

11. Kiwon Ban, Postdoctoral Fellow, Cardiology
   *Purification of Cardiomyocytes from Differentiating Human Pluripotent Stem Cells Using Molecular Beacons Targeting Cardiomyocyte-specific mRNA*

12. Young-Doug Sohn, Postdoctoral Fellow, Cardiology
   *Human Circulating Lymphatic Endothelial Progenitor Cells Accelerate Wound Healing in Mice*

13. Saumeth D. Cardona, Postdoctoral Fellow, Endocrinology
   *Is the Admission HbA1c Level a Predictor of Glycemic Control and Hospital Complications in General Surgery Patients with Type 2 Diabetes?*

14. Andreas Kalogeropoulos, Assistant Professor, Cardiology
   *Dietary Sodium Intake and 10-year Mortality in Older Adults: The Health, Aging, and Body Composition (Health ABC) Study*

15. Jesse T. Jacob, Assistant Professor, Infectious Diseases
   *Population Pharmacokinetics (PK) of Vancomycin in Hospitalized Patients*

16. Gregory D. Weston, Internal Medicine Resident
   *A Multicenter Study on Carbapenem Use*

17. Arielle C. Lutterman, Internal Medicine Resident
   *Original Research: Cumulative Radiation Exposure of Hospitalized Patients Due To Imaging*

18. Ashish J. Mehta, Assistant Professor, Pulmonology
   *Zinc Supplementation in vitro Improves Immune Function and Restores Intracellular Zinc Levels in Alveolar Macrophages Isolated from Human Alcoholics*

19. Xian Fan, Assistant Professor, Pulmonology
   *Zinc Supplementation Improves Alveolar Epithelial Barrier Dysfunction Induced by Chronic Alcohol Ingestion and/or HIV-1 Viral Proteins by Activating the Nrf2/ARE Pathway*

20. Sarah M. Lofgren, Internal Medicine Resident
   *Progression and Regression of Cervical Dysplasia in Patients with HIV*
21. **Minh Ly Nguyen**, Assistant Professor, Infectious Diseases  
*HIV in the Early Twenty-first Century: Gender Differential at Time of Presentation for Antiretroviral Initiation*

22. **Loida Bonney**, Assistant Professor, General Medicine & Geriatrics  
*I Chose Not to Go and Didn’t Care: Challenges to Retention in HIV Care for Black Women in the South*

23. **Minh Ly Nguyen**, Assistant Professor, Infectious Diseases  
*Hepatitis C and B Prevalence among Antiretroviral Naïve Patients Starting Treatment at a Ryan-White-funded Urban Clinic in the Twenty-first Century*

24. **Lesley Miller**, Assistant Professor, General Medicine & Geriatrics  
*2009 DOM FAME Grant Recipient*  
*Success with New Protease Inhibitor-Based Hepatitis C Therapy in an Urban, Primary Care-Based Hepatitis C Clinic*

25. **Minh Ly Nguyen**, Assistant Professor, Infectious Diseases  
*HIV1-resistance Mutations in Naïve HIV-infected Individuals Attending a Ryan White Clinic in the Late Antiretroviral Era*

26. **Lauren M. Shea**, Internal Medicine Resident  
*Effect of Fellow Participation in Screening Colonoscopy on Adenoma Detection Rate*

27. **Lauren M. Shea**, Internal Medicine Resident  
*Adenoma Detection Rates In An Urban Hospital with African American Majority*

28. **Michelle P. Clermont**, Medical Student  
*Impact of Endoscopic Mucosal Resection in Patients Referred for Endoscopic Management of Barrett’s Esophagus*

29. **Amr Mohamed Rashed**, Postdoctoral Fellow, Medical Oncology  
*SOX10 Expression in Malignant Melanoma, Carcinomas, and Normal Tissues*

30. **David I. Brown**, Graduate Student, Cardiology  
*Reduced Growth in Poldip2 Null MEFs*
31. **Nawazish A. Naqvi**, Assistant Professor, Cardiology
   **2010 DOM Seed Grant Recipient**
   *Evidence for Robust Cardiomyocyte Proliferation in Preadolescent Hearts*

32. **Bernard Lassègue**, Assistant Professor, Cardiology
   *Poldip2 Maintains Vascular Structure and Function in vivo*

33. **Mohamed Khayata**, Postdoctoral Fellow, Cardiology
   *Migrant South Asian Women Have Higher Measures of Arterial Stiffness than Black and White Women Residing in the United States*

34. **Robert B. Neuman**, Postdoctoral Fellow, Cardiology
   *Neuronal Nitric Oxide Synthase Contributes to Bradykinin, but not Acetylcholine Stimulated Endothelium-Dependent Vasodilation in the Human Forearm Circulation*

35. **Marina Piccinelli**, Postdoctoral Fellow, Cardiology
   *Lower Coronary Wall Shear Stress is Associated with Endothelial Dysfunction in Patients with Non-Obstructive Coronary Artery Disease*

36. **Pankaj Manocha**, Postdoctoral Fellow, Cardiology
   *Association of Depression with Soluble Urokinase-type Plasminogen Activator Receptor and Other Markers of Inflammation and Immunity*

37. **Danny J. Eapen**, Postdoctoral Fellow, Cardiology
   *Soluble Urokinase Plasminogen Activator Receptor (suPAR) Is Associated with Presence and Severity of Coronary Disease and Is an Independent Predictor of Adverse Cardiovascular Outcomes*

38. **Christian E. Overgaard**, Postdoctoral Fellow, Pulmonology
   *Increased Claudin-5 Increases Lung Epithelial Permeability and is Associated with Disruption of Tight Junction Assembly*

39. **Michel T. Corban**, Postdoctoral Fellow, Cardiology
   *Combination of High Wall Shear Stress, Plaque Burden, and Plaque Phenotype has Incremental Value for Prediction of Increased Plaque Vulnerability in Patients with Coronary Artery Disease*
40. Antoine R. Trammell, Assistant Professor, General Medicine & Geriatrics
   Epinephrine Use During In-hospital Cardiac Arrest May Not Increase Survival to Discharge

41. Chan Woo Kim, Postdoctoral Fellow, Cardiology
   Anti-inflammatory and Anti-atherogenic Role of BMP Receptor II in Endothelial Cells

42. Isabel Fernandez, Research Specialist, Cardiology
   Nox1-produced ROS Induce Activation of the Dual Phosphatase SSH1L by Cysteine Oxidation of 14-3-3 Cysteine Residues in Vascular Smooth Muscle Cells

43. Ioannis Parastatidis, Postdoctoral Fellow, Cardiology
   Hydrogen Peroxide Mediates Calcium Chloride-Induced Aortic Wall Dilatation

44. Song Li, Internal Medicine Resident
   Traditional and Novel Markers of Renal Function and Outcomes in Outpatients with Heart Failure: The Atlanta Cardiomyopathy Consortium (TACC)

45. Camille Vaughan, Assistant Professor, General Medicine & Geriatrics
   Nocturia and Overnight Polysomnography in Parkinson’s Disease

46. Yanhua Wang, Postdoctoral Fellow, Nephrology
   Role of PKCα in Hypertonicity-stimulated Urea Permeability

47. Robert T. Cole, Assistant Professor, Cardiology
   In-Hospital Inotropes and Outcomes in Ischemic vs. Nonischemic Cardiomyopathy: Insights from the ESCAPE Trial

48. Tiffany L. Thai, Postdoctoral Fellow, Nephrology
   The NMDA Receptor Subunit NR3a Enhances Renal Inner Medullary Fibrosis in Response to Lithium Carbonate in vivo

49. Viranuj Sueblinvong, Assistant Professor, Pulmonology
   Alcohol Induces TGFbeta1 Expression via Suppression of Nrf2 in vitro
50. Jordan D. Harrison, Medical Student
Discrimination is Associated with Non-Alcoholic Fatty Liver Disease (NAFLD) among African Americans in The Multi Ethnic Study of Atherosclerosis (MESA)

51. Asiya Seema Chida, Postdoctoral Fellow, Rheumatology
Molecular Determinants of 9G4 B Cells Autoreactivity and Selection in Human SLE

52. Chungwen Wei, Assistant Professor, Rheumatology
B Cell Profiling Approach to Understanding Their Role in SLE Pathogenesis

53. Jenna A. McLendon, Medical Student
Effect of Calcineurin Inhibition on Tau Phosphorylation and Cognition

54. Thor Tejada, Postdoctoral Fellow, Cardiology
Chymase Plays a Detrimental Role in the Post MI Heart Independent of its Effects on Ang II

55. Catherine N. Marti, Postdoctoral Fellow, Cardiology
Soluble Tumor Necrosis Factor Receptors and Heart Failure Risk in Older Adults: The Health, Aging, and Body Composition Study

56. Hatem Al Kassem, Postdoctoral Fellow, Cardiology
Serum Heat Shock Protein-70 is Associated with Decreased Frequency and Severity of Cellular Rejection in Cardiac Transplant Patients

57. Kaiser Bijli, Research Associate, Pulmonology
Critical Role of Transglutaminase 2 in Endothelial Cell Inflammation and Lung PMN Sequestration

58. Hope K.A. Gole, Postdoctoral Fellow, Cardiology
The Actin Binding Protein Cofilin Inhibits Mechanical Strain-induced Inflammatory Gene Expression

59. Min-Young Lee, Graduate Student, Cardiology
Vascular Smooth Muscle Differentiation Marker Gene Expression is Redox-Sensitive
60. Shin W. Ha, Postdoctoral Fellow, Cardiology
   Silica Based Nanoparticles Stimulate Autophagy and Promote Differentiation of Osteoblasts

61. Candace Adamo, Postdoctoral Fellow, Cardiology
   Microtubule Regulation by Diaphanous Related Formin 1 (mDia1) in Vascular Smooth Muscle Cells

62. Srinivasa Raju Datla, Postdoctoral Fellow, Cardiology
   Poldip2 Regulates Vascular Smooth Muscle Cell Migration and Proliferation via Regulating Focal Adhesion Turnover and Cell Cycle Arrest

63. Angelica Amanso, Postdoctoral Fellow, Cardiology
   Role of Poldip2 in a Murine Model of Postischemia Neovascularization

64. Holly C. Williams, Postdoctoral Fellow, Cardiology
   Coronin1B Regulates PDGF-induced ROS Production in VSMCs

65. Akram Wafic Ibrahim, Postdoctoral Fellow, Cardiology
   The Role of Cerebral Oxygenation as a Real Time Monitoring Tool in Cardiac Arrest

66. Ravi Prasad Avati Nanjundappa, Assistant Professor, Hospital Medicine
   Mean Platelet Volume is an Independent Predictor of Left Ventricular Systolic Dysfunction and is Associated with Adverse Cardiovascular Outcomes

67. Vasiliki Georgiopoulou, Assistant Professor, Cardiology
   Depression Symptoms Evaluated by the PHQ-9 Instrument in Outpatients With Heart Failure in the Atlanta Cardiomyopathy Consortium (TACC) Study: Association with Health Care Resource Utilization and Quality of Life

68. Divya Gupta, Assistant Professor, Cardiology
   Six-Minute Walk Test and Outcomes in Outpatients with Heart Failure: The Atlanta Cardiomyopathy Consortium

69. Ronnie Ramadan, Postdoctoral Fellow, Cardiology
   QTc Interval Shortening Predicts the Development of Mental Stress-Induced Myocardial Ischemia in Patients with Stable Coronary Artery Disease
70. **Vikas Bhalla**, Assistant Professor, Hospital Medicine  
**Apolipoprotein A-1 Levels and Heart Failure Outcomes**

71. **Sarawut Siwamogsatham**, Postdoctoral Fellow, Cardiology  
**Pulmonary Artery Systolic Pressure by Echocardiography and Outcomes in Stable Outpatients with Heart Failure**

72. **Heval Mohamed Kelli**, Internal Medicine Resident  
**Death Rates due to Pulmonary Embolism in the State of Georgia**

73. **Shadi S. Yarandi**, Internal Medicine Resident  
**Increased Prevalence of Benign Pancreatic Disease in Patients Undergoing Whipple Procedure for Presumed Malignancy Despite More Imaging Studies**

74. **Ayman Samman Tahhan**, Postdoctoral Fellow, Cardiology  
**A Cumulative Family History Score is Associated with Greater Severity and Progression of Angiographic Coronary Artery Disease**

75. **Shadi S. Yarandi**, Internal Medicine Resident  
**African-American Crohn’s Patients Are More Likely to Return to the Operating Room After Initial Surgery When Compared to Caucasians**

76. **Ugochi K. Ohuabunwa**, Assistant Professor, General Medicine & Geriatrics  
**Equipping Future Healthcare Team Leaders with Skills to Improve Post Discharge Outcomes; Implementing a Care Transitions Curriculum among Medical Residents**

77. **Ugochi K. Ohuabunwa**, Assistant Professor, General Medicine & Geriatrics  
**Safety in Transitions of Care; Identifying Needs among Key Providers in an Urban Academic Hospital**

78. **Carmen C. Polito**, Postdoctoral Fellow, Pulmonology  
**Variations in Institutional Review Board Practices in a Multicenter Observational Critical Care Study**
Abstract Reviewers

George Beck, Jr., PhD, Assistant Professor, Endocrinology
Arlene Chapman, MD, Professor, Nephrology
David Guidot, MD, Jeffrey Pine Professor and Division Director, Pulmonology
Alejandra San Martin, PhD, Assistant Professor, Cardiology
Shanthi Srinivasan, MD, Associate Professor, Digestive Diseases
Susan Wall, MD, Professor, Nephrology
Alan Wang, MD, Associate Professor and Division Director, Hospital Medicine

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Acknowledgements

Poster Judges

Mitsi Blount, PhD, Assistant Professor, Nephrology
Loida Bonney, MD, MPH, Assistant Professor, General Medicine & Geriatrics
Katharina Echt, PhD, Assistant Professor, General Medicine & Geriatrics
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