



Weill Cornell Medicine
Joan and Sanford I. Weill
Department of Medicine



Eighth Annual Weill Department of Medicine Research Retreat

Tuesday, September 12th, 2023 | 8:30 am–6:00 pm

Hybrid Retreat | <https://weillcornell.zoom.us/j/99566248345>

Dial In | 646-876-9923

Meeting ID | 995 6624 8345

Keynote Speaker

**Kirsten Bibbins-Domingo,
PhD, MD, MAS**

Lee Goldman, MD Endowed Professor of Medicine
Professor of Epidemiology and Biostatistics,
University of California, San Francisco
17th Editor in Chief of the Journal of the
American Medical Association (JAMA) and the
JAMA Network

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John P. Leonard, MD
Professor and Chairman (Interim)

Steven M. Lipkin MD, PhD
Professor and Vice Chairman of Research

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Kyu Y. Rhee, MD
Professor of Medicine

Joseph M. Scandura, MD
Associate Professor of Medicine

Martin Shapiro, MD, PhD
Professor of Medicine

Jonathan W. Weinsaft, MD
Professor of Medicine

Meeting Description

The Eighth Annual Department of Medicine Research Retreat will provide a distinct forum to bring together a diverse range of established and emerging faculty and trainees and experts in complimentary fields to foster and expand our research efforts. The conference will feature a broad range of faculty with talks reflecting different career stages and research fields.

Participation by young investigators, trainees and residents is strongly encouraged. The central goals of the conference are to:

1) Highlight the various research programs within the Department—specifically to promote interaction between young and senior investigators and exchange of ideas which will shape the future direction of research within the Department

2) Foster the development of the next generation of researchers by encouraging participation of residents and post-doctoral trainees

3) Promote interactions and collaborations amongst our research faculty.

The conference will provide time for formal and informal discussions allowing for widespread participation of conference attendees at various career stages.

The full program and speaker bios are listed in the following pages below.

weillcornell.org

Program

Tuesday, September 12th, 2023

8:45 am

Introduction | Belfer 3rd Floor

Dr. John P. Leonard, MD

Dr. Steven Lipkin, MD, PhD

9:00 am

Senior Faculty Presentations | Belfer 3rd Floor

Jonathan Weinsaft, MD

Chief and Professor of Medicine, Division of Cardiology

"Towards Personalized Prosthetic Graft Replacement for Genetically Triggered Thoracic Aortic Aneurysms"

Juliet Barker, MBBS (Hons), FRACP

Professor of Medicine, Division of Hematology and Oncology

"Transplant and Cell Therapy at Weill Cornell: The Future"

10:00 am

Junior Faculty Presentations | Belfer 3rd Floor

Ashley Beecy, MD

Assistant Professor of Medicine, Division of Cardiology

"From Data to Diagnosis: Exploring Digital Health Solutions in Cardiovascular Care"

Christopher Parkhurst, MD, PhD

Instructor in Medicine, Division of Pulmonary and Critical Care Medicine

"The Gut-Brain Axis: How the microbiota shape microglia-neuronal interaction"

Robert N. Peck, MD, PhD

Associate Professor of Medicine, Division of Global Health

"Improving chronic disease outcomes in East Africa through health services research: the Weill Bugando experience"

Jesus Maria Gomez Salinero, PhD

Instructor of Biomedicine in Medicine, Division of Regenerative Medicine

"Targeting vascular core and organotypic programs for regenerative medicine"

11:00 am

AM Poster Session | Belfer 2nd Floor

12:00 pm

Boxed Lunch | Belfer Skylight Lounge

1:00 pm

PM Poster Session | Belfer 2nd Floor

2:00 pm

Abstract Oral Presentations | Belfer 3rd Floor

Mohammad Arifuzzaman, PhD

Postdoctoral Associate in Medicine, Division of Gastroenterology and Hepatology

"Dietary fiber and microbiota-derived bile acids elicit type 2 cytokine-driven intestinal inflammation"

Jyoti Mathad, MD

Assistant Professor of Medicine, Division of Global Health

"Mechanism mapping to analyze how interventions work (and don't work): lessons learned from a community health worker intervention to improve gestational diabetes screening in India"

Bobak Parang, MD, PhD

Instructor in Medicine, Division of Hematology and Oncology

"Methylmalonic acid is an oncometabolite in non-small cell lung cancer"

Thalia Salinas, MD

Instructor in Medicine, Division of Nephrology

"A transformative Weill Cornell Hybrid Protocol for self-molecular monitoring of kidney transplant recipients"

3:00 pm

Break

3:30 pm

Keynote Lecture | Uris Auditorium

Kirsten Bibbins-Domingo, PhD, MD, MAS

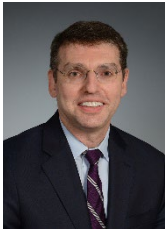
Lee Goldman, MD Endowed Professor of Medicine

Professor of Epidemiology and Biostatistics, University of California, San Francisco

17th Editor in Chief of the Journal of the American Medical Association (JAMA) and the JAMA Network

"Leading during dynamic times: A view of medical publishing from JAMA"

Our Speakers



Jonathan Weinsaft, MD serves as Chief of the Division of Cardiology and the A.M Gotto Professor of Medicine at Weill Cornell Medicine – NY Presbyterian Hospital. He is a physician-scientist with a focus on development and validation of novel tissue characterization imaging approaches to discern mechanism, guide treatment, and refine risk stratification for patients with adverse cardiovascular remodeling, including patients with genetically triggered aortopathies. Dr. Weinsaft's most current research is using MRI derived computational modeling to elucidate biomechanical impacts of prosthetic aortic grafts on distal remodeling and clinical event (dissection) risk in aortic aneurysm patients undergoing proximal graft surgery, and to use these data to inform development of tailored grafts that compensate for native aortic properties and improve prediction of clinical events (dissection) after proximal grafting.



Juliet Barker, MBBS (Hons), FRACP is an Australian trained hematologist. Having been an Attending Member and Physician at Memorial Sloan Kettering Cancer Center (MSKCC) and the Director of the MSKCC Cord Blood (CB) Transplantation Program, Dr. Barker has

been recruited to Weill Cornell Medicine and NewYork-Presbyterian Hospital as the Director of the Bone Marrow Transplant and Cellular Therapy Program. Over the last 25 years, Dr. Barker has worked to expand transplant access to minority patients with hematologic malignancies and has demonstrated the ability of cord blood transplantation to provide curative therapy for such populations without suitable adult donors. Dr. Barker's work in this area has been internationally recognized and she has published extensively concerning novel strategies to optimize access to donor transplants and cord blood transplant outcomes. Additionally, she has a special focus on optimizing complex health care delivery such as hematopoietic stem cell transplantation in under-served populations. Dr. Barker has advised the National Marrow Donor Program (NMDP) and is a member of the Advisory Council on Blood Stem Cell Transplantation to the Health Resources and Services Administration of the U.S. government. She has served on the American Society for Transplantation and Cellular Therapy (ASTCT) Board and led the national ASTCT Cord Blood Special Interest Group. Having previously served as Associate Vice Chair, Faculty Development, in the Department of Medicine at MSKCC, Dr. Barker also has a keen interest in academic mentorship.



Ashley Beecy, MD is the Medical Director of Artificial Intelligence (AI) Operations at NewYork-Presbyterian. She has a passion for using technology and advanced analytics to support improvements in quality, safety and value for patients and providers. Dr. Beecy focuses on deploying digital health solutions safely and equitably across the entire health

system, and her team has built the infrastructure and governance processes to ensure the deployment of ethical and effective AI. As part of her role, she leads NewYork-Presbyterian's largest enterprise-wide AI initiative in collaboration with Cornell Tech and Cornell University. Dr. Beecy is also an Assistant Professor of Medicine in the Division of Cardiology at Weill Cornell Medicine, where she serves as an attending physician on the consultative cardiology service, inpatient telemetry unit, and cardiac intensive care unit. Her research focus is on digital health, including the use of AI models for the detection and management of cardiovascular disease and the safe and effective use of AI in healthcare. This work has led to numerous peer-reviewed publications and invited presentations.



Christopher Parkhurst, MD, PhD received his MD and PhD from the medical scientist training program at the NYU Grossman School of Medicine. His graduate work focused on understanding how the brain's immune system interacts with neurons in order to shape neuronal circuitry and animal behavior and sparked his long-term interest in how

derangements in immunity alter central nervous system function. He then completed his residency in internal medicine and fellowship in pulmonary and critical care medicine as part of the medical research track residency at Weill-Cornell Medicine/New York-Presbyterian Hospital where he served as the chief fellow in 2019. He is currently finishing his post-doctoral work in the laboratories of Drs. Conor Liston and David Artis and serves as the director of research at the Weill Cornell Post-ICU clinic. During this time, he has won numerous awards including the Thomas C. King Pulmonary Fellowship, the WCM Fund for the Future, a MIST scholarship, and most recently a NIMH career award. His current interests are in understanding the biology that link critical illness to long-term changes in cognition and mood.



Robert N. Peck, MD, PhD is an Associate Professor of Medicine in the Division of Infectious Diseases and the Center for Global Health. Dr Peck's research aims to improve health outcomes for people living with chronic diseases in East Africa, including Tanzania and Kenya. After completing his medicine and pediatrics residency training program at

Mass General and Children's Hospitals in Boston, Rob joined the Weill Cornell Medicine faculty in 2007 and moved to Tanzania to establish Weill Cornell's partnership with Weill Bugando School of Medicine. He completed his Masters in Epidemiology from Harvard School of Public Health in 2015 and his PhD from the University of Copenhagen in Clinical Epidemiology in 2019. His current NIH supported research program focuses on improving health services in East Africa for chronic diseases such as cardiovascular disease and HIV. His awards include an American Medical Association Foundation Excellence in Medicine Award (2019) and a NIH K24 Midcareer Investigator Award for Clinical Research Mentorship (2023).

Our Speakers (continued)



Jesus Maria Gomez Salinero, PhD research focuses on understanding the molecular mechanisms regulating endothelial cell signature and adaptability to expand the Vascular Medicine field. They have discovered a synergistic role for the transcription factors Fli1 and Erg in maintaining the endothelial program in adult mice. His work has also uncovered the vast

heterogeneity of the liver endothelium. It was found that during fetal to postnatal development, there is a transition in the activation of the adult sinusoidal signature regulated by the transcription factor c-Maf. His future direction is to understand the molecular mechanisms regulating the control of these programs and use them in the development of vascular regenerative approaches.



Mohammad Arifuzzaman, PhD is a Postdoctoral Associate in the Division of Gastroenterology and Hepatology at Weill Cornell Medicine. He obtained his master's degree from the University of Dhaka in Bangladesh and his Ph.D. from Duke University. Dr. Arifuzzaman's research interest is 'the exposome regulation of barrier immunity' i. e. how environmental

factors including diet and microbiota regulate the immune system. During his postdoctoral training, Dr. Arifuzzaman uncovered a complex mechanism by which inulin fiber diet-induced and microbiota-derived bile acid metabolites trigger type 2 inflammation. Currently Dr. Arifuzzaman is continuing his research on dietary fiber and microbiota-derived metabolites in the contexts of inflammatory bowel disease and colorectal cancer.



Jyoti Mathad, MD is an Assistant Professor of Medicine and Obstetrics & Gynecology in the Center for Global Health at Weill Cornell Medicine. Her primary research interests include the immune and metabolic changes of pregnancy and their impact on the pathogenesis of infectious diseases such as tuberculosis. She has been conducting NIH-

funded research in Pune, India, since 2010.



Bobak Parang, MD, PhD completed his undergraduate studies at the University of Pennsylvania, where he majored in Biology. He subsequently earned his MD and PhD from Vanderbilt University School of Medicine. He then joined the Weill Cornell Medicine Physician Scientist Training Program where he

completed his internal medicine residency and hematology / medical oncology fellowship. During his last year of fellowship, Dr. Parang served as Chief Fellow. As a member of the Weill Cornell Medicine faculty, Dr. Parang is a physician-scientist whose clinical and research interests are focused on lung cancer drug resistance and metastases.



Thalia Salinas, MD is an Instructor in Medicine at Weill Cornell Medical College and an Assistant Attending Physician at the NewYork-Presbyterian Hospital. Dr. Salinas received her M.D. from Baylor College of Medicine in Houston, Texas. She completed her residency in Internal Medicine in the Mount Sinai System and

her fellowships in Nephrology and Transplant Medicine at NewYork-Presbyterian/Weill Cornell Medical Center. Dr. Salinas is a transplant nephrologist and researcher in the Suthanthiran Laboratory, focusing on diagnostic and prognostic noninvasive biomarkers of kidney allograft rejection. She is a recipient of the Weill Cornell Medicine CTSC KL2 Career Development Award.

Keynote Speaker: Kirsten Bibbins-Domingo, PhD, MD, MAS is



the 17th Editor in Chief of the Journal of the American Medical Association (JAMA) and the JAMA Network. She is the Lee Goldman, MD Endowed Professor of Medicine and Professor of Epidemiology and Biostatistics at the University of California, San Francisco.

Dr. Bibbins-Domingo is a general internist, cardiovascular disease epidemiologist, and a national leader in prevention and interventions to address health disparities. She is a physician-scientist who has used observational studies, pragmatic trials, and simulation modeling to examine effective clinical, public health, and policy interventions aimed at prevention.

Dr. Bibbins-Domingo previously served as the inaugural Vice Dean for Population Health and Health Equity in the UCSF School of Medicine and the Chair of the Department of Epidemiology and Biostatistics at UCSF. She co-founded the UCSF Center for Vulnerable Populations at Zuckerberg San Francisco General Hospital that generates actionable research to advance health equity and reduce health disparities in the San Francisco Bay Area, California, and nationally.

Dr. Bibbins-Domingo was a member of the US Preventive Services Task Force from 2010-2017 and led the Task Force as the vice-chair and chair from 2014-2017. She is an elected member of the American Society for Clinical Investigation, the Association of American Physicians, the National Academy of Medicine, and the American Academy of Arts and Sciences.