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

Organizers
John P. Leonard, MD
Professor and Chairman (Interim)
Steven M. Lipkin MD, PhD
Professor and Vice Chairman of Research

Executive Committee
Mary E. Choi, MD
Professor of Medicine
Marshall J. Glesby, MD
Professor of Medicine
Paraskevi Giannakakou, PhD
Professor of Pharmacology in Medicine
Lisa Kern, MD
Associate Professor of Medicine
Lonny Levin, PhD
Professor of Pharmacology in Medicine
Shahin Rafii, MD
Professor of Medicine
Cary Reid, MD, PhD
Professor of Medicine
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
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

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”
under-served populations. Dr. Barker has advised the National
Development, in the Department of Medicine at MSKCC, Dr.
Barker also has a keen interest in academic mentorship. Dr.
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.

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.

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
partnership 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.

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).

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.
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 this 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.