

Connors–BRI Symposium: Incorporating Sex as Biologic Variable to Advance Health

**Monday, May 24th, 2021
3:00 – 5:00PM ET || Virtual**



**BRIGHAM AND
WOMEN'S HOSPITAL**

BRIGHAM RESEARCH INSTITUTE

AGENDA

3:00PM	Welcoming Remarks	Hadine Joffe, MD, MSc Executive Director, Mary Horrigan Connors Center for Women's Health and Gender Biology Paula A. Johnson Professor of Psychiatry in the Field of Women's Health Vice Chair for Research, Department of Psychiatry Brigham and Women's Hospital / Harvard Medical School
3:05PM	Keynote Address	INTRODUCTION BY: Kathryn Rexrode, MD, MPH Chief, Division of Women's Health, Department of Medicine Associate Professor of Medicine Brigham and Women's Hospital / Harvard Medical School KEYNOTE: <i>Why Studying Sex and Gender is Square One</i> Janine Austin Clayton, MD Associate Director for Research on Women's Health Director of the Office of Research on Women's Health National Institutes of Health
3:45PM	Featured Short Talks	INTRODUCTION BY: Laura M. Holsen, MS, PhD Associate Psychologist Assistant Professor of Psychiatry Brigham and Women's Hospital / Harvard Medical School SHORT TALKS BY: <i>Sexual dimorphism in genetic associations of testosterone and sex-hormone binding globulin with coronary heart disease</i> Jie Hu, MD, PhD, Brigham and Women's Hospital <i>Network medicine approaches reveal sex differences in lung cancer gene regulation</i> Camila Lopes-Ramos, PhD, Harvard TH Chan School of Public Health <i>Plasma glycated CD59 (pGCD59) accurately predicts early gestational diabetes (GDM)</i> Michelle Toth-Castillo, BSc, Brigham and Women's Hospital
4:20PM	Lightning Talks	INTRODUCTION BY: P. Emanuela Voinescu, MD, PhD Assistant Professor of Neurology Brigham and Women's Hospital / Harvard Medical School
4:50PM	Closing Remarks	Dawn L. DeMeo, MD, MPH Associate Professor of Medicine Brigham and Women's Hospital / Harvard Medical School

KEYNOTE SPEAKER

Janine Austin Clayton, M.D.



Janine Austin Clayton, M.D., Associate Director for Research on Women's Health and Director of the Office of Research on Women's Health (ORWH) at the National Institutes of Health (NIH), is the architect of the NIH policy requiring scientists to consider sex as a biological variable across the research spectrum. This policy is part of NIH's initiative to enhance reproducibility through rigor and transparency. As co-chair of the NIH Working Group on Women in Biomedical Careers with NIH Director Dr. Francis Collins, Dr. Clayton also leads NIH's efforts to advance women in science careers.

Prior to joining the ORWH, Dr. Clayton was the Deputy Clinical Director of the National Eye Institute (NEI) for seven years. A board-certified ophthalmologist, Dr. Clayton's research interests include autoimmune ocular diseases and the role of sex and gender in health and disease. She is the author of more than 120 scientific publications, journal articles, and book chapters. Dr. Clayton, a native Washingtonian, received her undergraduate degree with honors from Johns Hopkins University and her medical degree from Howard University College of Medicine. She completed a residency in ophthalmology at the Medical College of Virginia. Dr. Clayton completed fellowship training in cornea and external disease at the Wilmer Eye Institute at Johns Hopkins Hospital and in uveitis and ocular immunology at NEI.

Dr. Clayton has received numerous awards, including the Senior Achievement Award from the Board of Trustees of the American Academy of Ophthalmology in 2008 and the European Uveitis Patient Interest Association Clinical Uveitis Research Award in 2010. She was selected as a 2010 Silver Fellow by the Association for Research in Vision and Ophthalmology. In 2015, she was awarded the American Medical Women's Association Lila A. Wallis Women's Health Award and the Wenger Award for Excellence in Public Service. Dr. Clayton was granted the Bernadine Healy Award for Visionary Leadership in Women's Health in 2016. She was also selected as an honoree for the Woman's Day Red Dress Awards and the American Medical Association's Dr. Nathan Davis Awards for Outstanding Government Service in 2017.

LIGHTNING TALKS

CARDIOVASCULAR AND REPRODUCTIVE HEALTH

Moderated by: Kathryn M. Rexrode, MD, MPH

Breakout Room: "CV and Reproductive Health"

Shadi (Khadijeh) Gholami, PhD | BWH

"Biological Sex Modifies Aldosterone's Secretion at a Cellular Level"

Wasita Parksook, MD, MSc | BWH

"Salt sensitivity of blood pressure in humans: an interaction between Lysine-specific demethylase 1 gene, sex, and age"

Naoko Sasamoto, MD, MPH | BWH

"Plasma proteomic profiles associated with endometriosis in adolescents and young adults"

Jennifer Stuart, ScD | BWH

"History of early life abuse and risk of preeclampsia"

Amélie Vromman, PhD | BWH

"Sex differences in responsiveness to Interleukin-1 β inhibition in mice with clonal hematopoiesis of indeterminate potential"

ENDOCRINE AND METABOLISM

Moderated by: Laura M. Holsen, MS, PhD

Hyeonmin Ahn, PhD | BWH

"Sex differences in the association between amygdala functional connectivity and cortisol and ghrelin following acute psychosocial stress"

Rachel Blair, MD | BWH

"Breastfeeding Associated with Lower Prevalence of Metabolic Syndrome in Women with Gestational Diabetes in the Very Early Postpartum Period"

Jessica Busler | BWH

"Resting State Activity and Insulin Resistance in Postmenopausal Women with and without Obesity"

Nida Haider, PhD | Joslin Diabetes Center

"Distinct Male and Female Protein Phosphorylation Changes Associated with Human Insulin Resistance"

P. Emanuela Voinescu, MD, PhD | BWH

"Pregnant Women with More Seizures Have Lower Allopregnanolone Concentrations"

GENETICS

Moderated by: Dawn L. DeMeo, MD, MPH

Assunta De Rienzo, PhD | BWH

"Association of RERG Expression to Female Survival Advantage in Malignant Pleural Mesothelioma"

Rebecca Harris, MD, PhD | Boston Children's Hospital

"Sex-Biased Gene Expression in Humans: Using Gender Transition to Define the Roles of Sex Hormones and Sex Chromosomes"

Kyoko Konishi, PhD | MGH

"Association Between Telomere Length and Early Midlife Memory Function: Impact of Sex, Reproductive Aging, and Cardiovascular Disease"

Joanna Lin, Current Undergraduate | MGH

"Gene-environment interaction analysis incorporating sex and other risk factors reveals novel genetic associations with COVID-19 severity"

Rachel Soemedi, PhD | Alpert Medical School, Brown University

"Contribution of sex-biased genetic variants in sex-divergent disease traits"

NEUROSCIENCE

Moderated by: Hadine Joffe, MD, MSc

Justine Cohen, PhD | MGH

"Impact of Reproductive Aging and Major Depression on Sex Differences in Resting State Activity in the Brain"

Ronald Garcia, MD, PhD | MGH

"Development of a Novel Transcutaneous Vagus Nerve Stimulation Technique for Modulation of Sex-dependent Alterations of the Stress Response Circuitry and Cardiac Autonomic Function in Major Depression"

Julia Hall, BA | BWH

"Effects of Menopause on Mesolimbic activation during Food Reward Task."

Joanna Korecka, PhD | BWH

"Microbiome from male PD patients carrying alpha-synuclein E46K mutation aggravates motor deficits in a mouse model of Parkinson's disease"

Elizabeth Shashkova, BS | BWH

"Occurrence of Seizure Worsening and Clinical Toxicity during Postpartum ASM Taper in Women with Epilepsy on Lamotrigine Monotherapy"

VIDEO SHOWCASE

*Videos are hyperlinked in the abstract titles

Yanaira Alonso-Caraballo, PhD | McLean Hospital

"Long-terms effects of in utero oxycodone exposure on male and female offspring"

Mehmet Furkan Burak, MD | BWH, HMS

"Identification of the adipo-centric sex difference in obesity-related asthma in women"

Ezgi Caliskan Guzelce, MD | BWH

"Biologic Sex differences in Aldosterone: Mechanisms secondary to altered Renin-angiotensin System activity"

Taylor Covington, BS/BA | BWH

"Role of gender in fibrodysplasia ossificans progressiva"

Taylor Covington, BS/BA | BWH

"Sex-Specific miRNA Signatures in Pulmonary Arterial Hypertension"

Sudeshna Fisch, PhD | BWH

"A gender-unbiased analysis of DAPA's mechanism of action using preclinical research models"

Yanjun Guo, MD, PhD | BWH

"Association Between Hemostatic Profile and Migraine: A Mendelian Randomization Analysis"

Carrie Mahoney, PhD | BIDMC, BWH, ROSA

"Orexins as Mediators of the Effects of Low Estradiol on Fragmented Sleep and Stress Responses"

Jhillika Patel, MHS, BA | BWH

"Sports-related Shoulder Injuries Among Female Athletes"

Anju Patel, MD | BWH

"Gender Representation on Otolaryngology-Head and Neck Surgery Journal Editorial Boards: Does it Reflect our Workforce?"

Mallika Purandare, BS | BWH

"Postpartum Depression in Women with Epilepsy"

Meenakshi Rao, MD, PhD | Boston Children's Hospital

"Androgen Regulation of Bowel Function in Mice and Humans"

Antonia Seligowski, PhD | McLean Hospital

"Effects of sex and estradiol in the link between PTSD and cardiovascular disease in women"

Livia Silva Araujo Passos, PhD | BWH

"Discovery of Prothymosin alpha (ProT1±), a novel contributor to autoimmunity and sex predisposition in rheumatic heart valve disease"

Jennifer Sneider, PhD | McLean Hospital, HMS

"Impact of Depressive Symptoms on Memory and Neurobiology in Adolescent Girls"