2021 Virtual Meeting of the Organization for the Study of Sex Differences
Detailed Program

Monday May 3rd

7:45a PDT / 10:45a EDT Welcome from Dr. Rhonda Voskuhl, UCLA / OSSD President and
Opening Remarks from Dr. Joel Berletch and Dr. Jaclyn Schwarz (OSSD 2021 Program Chairs)

8:00a-9:20a Session 1:
“The Role of the X Chromosome in Sex Differences in Health & Disease”
Chairs: Dr. Christine Disteche, University of Washington, Dr. Rhonda Voskuhl, UCLA

11:00a–12:20p EDT On the “Nature” of sex and gender research. Dr. Cara Tannenbaum, CIHR, CRIUGM

X chromosome mechanisms shown in immune responses relevant to health and disease. Dr. Rhonda Voskuhl, UCLA

X-inactivation escapee variation by cell and tissue type: The role in sex differences in health and disease. Dr. Christine Disteche, University of Washington

Sex Chromosome Dosage Effects on Gene Expression and Chromosome Organization in Humans. Dr. Armin Raznahan, NIMH

9:20a-9:30a PDT / 12:20p-12:30p EDT Coffee Break

9:30a-10:30a PDT

SESSIONS 2 and 3

12:30p–1:30p EDT

Session 2: HOT TOPICS in Sex Difference Research: Cells and Molecules
Chair: TBN

The Power of Natural Variation: Sex Differences and Mitochondrial Functions. Dr. Karthickeyan Chella Krishnan, UCLA

Sex-specific molecular adaptations of the blood-brain barrier promote stress resilience vs depression. Dr. Caroline Menard, Université Laval, Quebec, Canada

Sex-specific differences in extracellular vesicles and their miRNA cargo in pregnancies complicated by maternal diabetes. Dr. Karen Forbes, University of Leeds

Session 3: HOT TOPICS in Sex Difference Research: Genetics and Important Data Sets
Chair: TBN
Big data approaches to detect and understand sex/gender differences in health.
Dr. Francisco Garcia-Garcia, Prince Felipe Research Center, Spain

Early life stress increases the retrotransposon, Line1, within developing brain in a sex-dependent manner.
Dr. Amelia Cuarente, University of Wisconsin-Madison

Neonatal Nutrition and Growth - Does Sex Matter? Dr. Pradeep Alur, University of Mississippi Medical Center

---

10:30a-11:30a PDT / 1:30p-2:30p EDT  |  Coffee and Networking w/ Roundtables

11:30a-12noon PDT / 2:30p-3:00p EDT  |  DATA BLITZ 1

Highlighting Award Winners and their Data

12:00p-1:00p PDT / 3:00p-4-00p EDT

Lunch on your own OR
EDUCATION EVENT “Integrating Sex and Gender into Research: Emphasizing approach, novelty and impact” Panel Q&A

Open to All

Chairs: Dr. Sofia Ahmed, University of Calgary and Dr. Kristen Zuloaga, Albany Medical College

The Panelists:
Dr. Art Arnold, UCLA
Dr. Liisa Galea, University of British Columbia
Dr. Michelle Mielke, Mayo Clinic
Dr. Sarah Richardson, Harvard University

1:00p-2:30p PDT / 4:00p-5:30p EDT

POSTER SESSION I

---

End of Day 1
Tuesday May 4th

7:45a PDT Introduction to the Keynote Address by Dr. Rhonda Voskhul, UCLA / OSSD President

8:00a-9:00a PDT / 11:00a-12noon EDT

KEYNOTE ADDRESS from the Arthur Arnold Distinguished Lecturer

Dr. Janine Clayton, NIH, Director ORWH

The Ultimate Goal: Advancing Science to Improve the Health of Women

9:00a-9:30a PDT / 12noon-12:30p EDT  Coffee Break and Chat w/ Roundtables

9:30a-10:30a PDT  SESSIONS 4 and 5

12:30p-1:30p EDT

Session 4: “Sex-Specific Therapies and Therapeutic Outcomes across Various Diseases”
Chair: Dr. Katelyn Bruno, Mayo Clinic

Sex differences in cardio-oncology: utilizing a genetic variant as a therapeutic target for doxorubicin-induced cardiomyopathy Dr. Katelyn Bruno, Mayo Clinic

Prohibitin: A potential target for sex-based new therapeutics for metabolic and immune diseases. Dr. Suresh Mishra, University of Manitoba

Combination of aromatase inhibitor exemestane and carboplatin-based therapy for postmenopausal women with advanced non-small cell lung cancer. Dr. Patricia Young, UCLA

Sex-specific studies in Parkinson’s disease models for the repurposing of the gonadal drug Dutasteride. Amandine Isenbrandt, Laval University, Quebec

Session 5: “Cardiovascular Health Across the Lifespan in the Transgender Person”
Chair: Dr. Sofia Ahmed, Libin Cardiovascular Institute of Alberta and University of Calgary

Overview: Gender Identification and Personalized Medicine, Dr. Sofia Ahmed

Transgender Health: The lived experience, Cris Morillo, Calgary, Canada

Cardiovascular Health in Transgender People: What is the evidence and what data are we missing? Dr. Carlos Morillo, Libin Cardiovascular Institute of Alberta and University of Calgary

Gender-Affirming Hormone Therapy and Health: Personal accounts and the evidence, Dr. Castalia Francon, CT

Gender-Affirming Therapy and Care for Transgender Patients, Dr. Nathalie Saad, University of Calgary
10:30a-11:00a PDT / 1:30p-2:00p EDT

DATA BLITZ 2
Highlighting Award Winners and their Data

11:00a-12:30p PDT / 2:00p-3:30p EDT

Lunch on your own OR

A lunchtime WORKSHOP: SABV 101 – CVD, Immune Function and Stroke
Chair: Dr. Art Arnold, University of California, Los Angeles

Dr. Louise McCullough, McGovern Medical School, UT Health Science Center
Sex differences in stroke.

Dr. Jayne Danska, Hospital for Sick Children and University of Toronto
Sex differences in the immune system.

Dr. Karin Schenck-Gustafsson, Karolinska Institute
Sex and Gender differences in Cardiovascular Health and Disease: Impact on clinical care.

12:30p-2:00p PDT / 3:30p-5:00p EDT

POSTER SESSION II

2:00p PDT - / 5:00p EDT –

Evening Social Event (open to all)

End of Day 2
Wednesday May 5th

8:00a-9:00a PDT  **Special Session:** “Sex and Gender Differences in COVID-19”  
Chair:  **Dr. Sabra Klein**, Johns Hopkins University

11:00a–12:00p EDT  
**Sex differences in COVID-19 from hamsters to humans.** 
**Dr. Sabra Klein**, Johns Hopkins University

*The gendered impacts of COVID-19 and the need for a gender responsive pandemic plan.* 
**Dr. Rosemary Morgan**, Johns Hopkins University

**Dr. Eileen Scully**, Johns Hopkins University

9:00a-9:15a PDT / 12noon – 12:15p EDT  
**Coffee Break**

9:15a-10:15a PDT / 12:15p-1:15p EDT

Introduction to the Capstone lecture with Dr. Jaclyn Schwarz

**CAPSTONE LECTURE**

**Dr. Roberta Brinton**  
Director, University of Arizona Center for Innovation in Brain Science  
University of Arizona Health Sciences  
*Tipping Points for Late-Onset Neurodegenerative Disease: Sex Differences in Mid-Life Aging.*

10:15a-10:30a PDT / 1:15p-1:30p EDT  
**Coffee Break**

10:30a-11:50a PDT  **SESSIONS 6 and 7**

1:30p–2:50p EDT  
**Session 6:** “Sex and Gender Differences in E-cigarette Use and Toxicity”

Chairs:  **Drs. Meghan E. Rebuli**, University of North Carolina, Chapel Hill and  **Patricia Silveyra**, Indiana University School of Public Health

*Gender differences in perceived stress and e-cigarette use across adolescence.*  
**Dr. Jessica L. Barrington-Trimis**, USC Keck School of Medicine

*LGBT E-cigarette use and exposure to advertisements on traditional and social media.*  
**Dr. Kristen Emory**, San Diego State University

*Sex-Specific Effects of Nicotine Exposure: Differences between e-cigarette vapor inhalation and intravenous nicotine self-administration.*  
**Dr. Valeria Lallai**, University of California, Irvine
**Sex-dependent effects of E-cigarette in combination with other tobacco use on sleep quality.**
Dr. Laura Crotty Alexander, UC San Diego School of Medicine

---

**Session 7: HOT TOPICS in Sex Difference Research: Aging and Physiological Processes**

Chair: TBN

**Sex differences in the rates of cognitive decline associated with in vivo tau burden: Findings from the Harvard Aging Brain Study.** Dr. Rachel Buckley, Massachusetts General Hospital, Harvard Medical School

**Sex-Specific Role of Neuronal Insulin Signaling on Health Span and Lifespan.**
Dr. Maarouf Baghdadi, Max Planck Institute for Biology of Aging, Cologne, Germany

**Sex differences in active-phase sleep amount are partially driven by X chromosome dosage.**
Dr. India Nichols-Obande, UCLA

**Investigating the role of Y-chromosome genes in protection against pulmonary hypertension.**
Christine M. Cunningham, UCLA

---

11:50a-1:00p PDT / 2:50p-4:00p EDT

**Lunch on your own OR**

**Mentor-Mentee LUNCH**
(Open to all trainees)

Organizer: Dr. Brittany Osborne, CHOP / University of Pennsylvania

---

1:00p-2:20p PDT

**SESSIONS 8 and 9**

4:00p–5:20p EDT

**Session 8: “Estrogen and cognitive brain functions: sex, conflict and complexity”**

Chair: Dr. Tallie Z. Baram, University of California, Irvine

**Sexually dimorphic synaptic plasticity in hippocampal networks critical for spatial memory.**
Dr. Christine M. Gall, University of California, Irvine

**Low estradiol protects females from the memory-impairing effects of multiple concurrent acute stresses.** Dr. Tallie Z. Baram, University of California, Irvine

**Beneficial and adverse effects of estrogens on the hippocampus and their importance.**
Dr. Helen Scharfman, New York University

**Estrogen and Memory across the Female Lifespan.** Dr. Tracey Shors, Rutgers University

---

**Session 9: “Multifactorial Determinants and Insights into Sex Differences in the Regulation of Energy Homeostasis”**

Chair: Dr. Edward Wagner, Western University of Health Sciences
Sex Differences in, and dietary influences on, cannabinoid regulation of energy homeostasis.  
Dr. Edward J. Wagner, Western University of Health Sciences

Sex differences in progressive motor and metabolic phenotypes in the MeCP2-e1 deficient mouse model. Dr. Janine LaSalle, University of California, Davis

Sex differences in the drinking response to angiotensin II.  
Dr. Jessica Santollo, University of Kentucky

Estradiol Protects Proopiomelanocortin Neurons against Insulin Resistance.  
Dr. Jian Qiu, Oregon Health and Science University

2:20p-3:15p PDT  OSSD Membership and Business Meeting (Open to All)  
5:20p-6:15p EDT  Dr. Rhonda Voskuhl, UCLA, OSSD President

AWARDS RECEPTION

Honoring all award recipients, and announcing the Florence P. Haseltine Best Poster Award competition winners.

End of Day 3
Thursday May 6th

8:00a-9:20a PDT  SESSIONS 10 and 11
11:00a–12:20p EDT  SESSIONS 10 and 11

8:00a-9:20a PDT  Session 10: “Sex Differences in Aging – Why Women Live Longer or Does it Just Seem Longer?”

Chairs: Dr. C. Noel Bairey Merz, Cedars-Sinai Medical Center and Dr. Karin Schenck-Gustafsson, Karolinska Institute

Comparative biology of sex & longevity. Dr. Steven N. Austad, University of Alabama at Birmingham

Gender differences in cognitive aging. Dr. Michelle M. Mielke, Mayo Clinic College of Medicine

Sex differences in the mechanisms of cardiovascular aging. Dr. Michael D. Nelson, University of Texas at Arlington

Longevity: Female XX sex chromosomes increase survival and extend lifespan in aging mice. Emily Davis, University of California, San Francisco

9:20a-9:30a PDT  Coffee Break

9:30a-10:50p PDT  SESSIONS 12 and 13
12:30p–1:50p EDT  Session 11: “Overlooked no more: The modulating effect of sex on the transmission, pathogenesis, pharmacotherapy and complications of HIV/AIDS”

Chair: Dr. Gretchen Neigh, Virginia Commonwealth University

From acute HIV infection to chronic HIV disease: The role of sex hormones in HIV transmission and disease progression in women and men. Dr. Eric Hunter, Emory University


What’s sex got to do with it? Sex differences in the action and efficacy of antiretroviral therapy. Dr. Mackenzie Leigh Cottrel, UNC Chapel Hill

Sex differences in HIV-host pathogen interactions – a driving force behind the disparity in HIV-associated end-organ damage in women and men. Dr. Igho Ofotokun, Emory University

9:20a-9:30a PDT  Coffee Break

9:30a-10:50p PDT  SESSIONS 12 and 13
12:30p–1:50p EDT  Session 12: “Differences of Sex Development: A window into sex and gender development”

Chairs: Dr. Natalie Nokoff, University of Colorado Anschutz Medical Campus and Dr. Eric Vilain, GW Children’s National Medical Center

Introduction: Understanding Differences of Sex Development. Dr. Courtney Finlayson, Northwestern Feinberg School of Medicine, Lurie Children’s Hospital
Modern Genetic Approaches to DSD. Dr. Emmanuèle Délot, The George Washington University

Psychosocial outcomes in DSD and the impact of sex steroids on the brain. Dr. David Sandberg, University of Michigan

Session 13: “Sex differences in mitochondria in health and disease”
Chairs: Dr. DeLisa Fairweather, Mayo Clinic and Dr. Michael Coronado, Whitman College

Sex differences in mitochondrial function - an overview. Dr. Renee Ventura-Clapier, Université Paris-Sud, Châtenay-Malabry, France

Maternal vs. paternal inheritance of mitochondria. Dr. Paldeep Atwal, The Atwal Clinic, Jacksonville, FL

Sex differences in mitochondrial function and dynamics in cardiac muscle during exercise. Dr. Michael Coronado, Whitman College

Sex-specific stress adaptation and mitochondrial function in Drosophila. Dr. John Tower, University of Southern California

10:50a-11:00a PST  Coffee Break

11:00a-12:30p PDT  Elizabeth Young New Investigator Award Symposium

2:00-3:30p PDT

Chairs: Drs. Kathryn Lenz and Farrah Madison

New Investigators TBD

12:30p-1:30p PDT / 3:30p-4:30p EDT  Networking and Social Lunch Hour

1:30p-2:50p PDT  SESSIONS 14 and 15

4:30p-5:50p EDT  Session 14: “Neuroimmune Activity in Adolescence: Are sex differences all about puberty?”

Chair: Dr. Heather Brenhouse, Northeastern University

Is perineuronal net formation during adolescence differentially regulated by microglial activity in males and females? Kelsea Gildawie, Northeastern University

Sex differences in blood brain barrier activity during adolescence. Dr. Gretchen Neigh, Virginia Commonwealth University

Sex-specific impact of immune signaling on dopaminergic signaling during adolescence. Dr. Ashley Kopec, Albany Medical College
Probiotic consumption during puberty mitigates LPS-induced immune responses and protects against stress-induced depression- and anxiety-like behaviors in adulthood in a sex-specific manner. Dr. Nafissa Ismail, University of Ottawa

Session 15: “Sex Differences in the Neurobiology of Addictive Disorders: Clinical Implications”
Chair: Dr. Aimee McRae-Clark, Medical University of South Carolina

Targeting stress for treatment development for women with alcohol use disorders. Dr. Sherry McKee, Yale University

Stress, gender and opioid use disorders. Dr. Kathleen Brady, Medical University of South Carolina

Women and cannabis: Do sex and gender matter? Dr. Aimee McRae-Clark, Medical University of South Carolina

Sex Differences in the Incubation of Cocaine Craving: Role of Ovarian Hormones. Dr. Sunila Nair, University of Washington

End of the OSSD 2021 Virtual Meeting. See you next year at OSSD 2022!