

OSSD - Organization for the Study of Sex Differences

Event Schedule

Mon, May 02, 2022

10:00 AM

Registration

🕒 10:00 AM - 5:00 PM, May 2

📍 Lobby

10:30 AM

Coffee Break

🕒 10:30 AM - 11:00 AM, May 2

📍 California Ballroom Foyer

11:00 AM

Lunch on your own

🕒 11:00 AM - 1:00 PM, May 2

Education event: Translating sex and gender research findings into the curriculum and health care

🕒 11:00 AM - 12:15 PM, May 2

📍 Pacific Ballroom 1-3

Workshop

👤 Moderator



Kristen Zuloaga

Associate Professor
Albany Medical College

👤 Panelist



Sarah Temkin

Associate Director for Clinical Research
OWHR NIH



Sofia Ahmed

Professor of Medicine, Nephrologist
University of Calgary, Canada

👤 Speaker



Patricia Silveyra

Associate Professor
Indiana University School of Public Health

1:00 PM

Session 1: SABV 101 WORKSHOP

🕒 1:00 PM - 2:30 PM, May 2

📍 Pacific Ballroom 1-3

Workshop

🗣️ Speaker



Arthur Arnold
University of California, Los Angeles

3 Subsessions

● **How to Study Sex Differences in Metabolism, Diabetes and Obesity**

🕒 1:00 PM - 1:30 PM, May 2
📍 Pacific Ballroom 1-3

● **Sex differences in drug response**

🕒 1:30 PM - 2:00 PM, May 2
📍 Pacific Ballroom 1-3

● **Sex differences in addiction**

🕒 2:00 PM - 2:30 PM, May 2
📍 Pacific Ballroom 1-3

Session 2: Incorporating hormonal contraceptives in studies of women's brain health and SABV

🕒 1:00 PM - 2:30 PM, May 2
📍 Sierra Ballroom 1-2

Symposia

🗣️ Speakers



Liisa Galea
Professor
University of British Columbia



Jesse Lacasse
Concordia University

4 Subsessions

● **Hormonal contraceptive and cognition: Navigating animal-models and translation to humans**

🕒 1:00 PM - 1:20 PM, May 2
📍 Sierra Ballroom 1-2

● **Modelling the impact of hormonal contraceptives on stress and depression**

🕒 1:20 PM - 1:40 PM, May 2
📍 Sierra Ballroom 1-2

● **The brain on the Pill: The enduring impact of pubertal exposure to oral contraceptives**

🕒 1:40 PM - 2:00 PM, May 2
📍 Sierra Ballroom 1-2

● **Fundamentals of oral contraceptives: Basic physiology and common misconceptions**

🕒 2:00 PM - 2:30 PM, May 2
📍 Sierra Ballroom 1-2

2:30 PM

Coffee Break

🕒 2:30 PM - 2:45 PM, May 2
📍 California Ballroom Foyer

Networki...

3:00 PM

Session 3: Hormone system interactions in the female body across the lifespan

🕒 3:00 PM - 4:45 PM, May 2

📍 Pacific Ballroom 1-3

Symposia

🗣️ Speaker



Alex Ycaza Herrera

Assistant Professor of Research
USC Leonard Davis School of Gerontology

4 Subsessions

● **Striatal dopamine synthesis and task-switching performance differs between hormonal contraceptive users and non-users**

🕒 3:00 PM - 3:25 PM, May 2

📍 Pacific Ballroom 1-3

● **Associations between hormone therapy regimes and brain age in middle to older-aged women from the UK Biobank**

🕒 3:25 PM - 3:50 PM, May 2

📍 Pacific Ballroom 1-3

● **Interaction between pregnancy and added stress on the endocrine, immune, and neural systems that regulate reward and anhedonia behaviors**

🕒 3:50 PM - 4:15 PM, May 2

📍 Pacific Ballroom 1-3

● **Getting hormonal: How hormonal contraceptive phase affects the stress response and brain function**

🕒 4:15 PM - 4:45 PM, May 2

📍 Pacific Ballroom 1-3

4:45 PM

Welcome Remarks, Dr. Rhonda Voskuhl, OSSD President, University of California, Los Angeles

🕒 4:45 PM - 5:15 PM, May 2

📍 Pacific Ballroom 1-3

🗣️ Speaker



Rhonda Voskuhl

Professor
University of California, Los Angeles

5:15 PM

Keynote Address: Sex differences at the molecular level: Lessons from the human transcriptome

🕒 5:15 PM - 6:15 PM, May 2

📍 Pacific Ballroom 1-3

Keynote

Sex differences at the molecular level: lessons from the human transcriptome

Barbara E. Stranger¹, Meritxell Oliva², Manuel Munoz³, Sarah Kim-Hellmuth⁴, GTEx Consortium

¹Northwestern University Feinberg School of Medicine, Center for Genetic Medicine, Chicago, IL

²Abbvie Pharmaceuticals, North Chicago, IL

³Center for Genomic Regulation, Barcelona, Spain

⁴Dr. von Haunerschen Children's hospital LMU, Munich, Germany

Many complex human phenotypes exhibit sex-differentiated characteristics, however a comprehensive characterization of sex differences at the molecular level has been lacking, and the underlying mechanisms of these differences remain largely unknown. Here, we explore the role of sex on a variety of transcriptome-related phenotypes. We have generated an extensive catalog comprising sex differences in gene expression and its genetic regulation across 44 human tissues surveyed by the Genotype-Tissue Expression (GTEx) Consortium. This work demonstrates that sex strongly influences gene expression levels and cellular composition of tissue samples across the human body. The effect of sex on gene expression is widespread, with a total of 35% of all genes exhibiting sex-biased expression in at least one tissue. This suggests that many, if not most, biological processes are impacted by sex effects on the transcriptome. We expand the characterization of genetic effects on gene expression levels (expression Quantitative Trait Loci [eQTLs]), to include those with sex-differentiated effects and characterize their cellular origin, identifying 369 sex-biased eQTLs (sb-eQTLs). By integrating sb-eQTLs with genome-wide association study data, we identify dozens of gene-trait associations that are driven by genetic regulation in a single sex, including novel associations not detected with sex-agnostic approaches. Collectively, our integrative analyses provide the most comprehensive characterization of sex differences in the human transcriptome to date, with implications for complex traits. We describe additional transcriptome studies where sex-informed analyses result in new discoveries related to human disease.

🗣️ Speaker



Barbara Stranger

Associate Professor
Northwestern University Feinberg School of Medicine

6:30 PM

Opening Reception

🕒 6:30 PM - 8:30 PM, May 2

📍 Bayview Rooftop Balcony

Networki...

Tue, May 03, 2022

7:30 AM

Breakfast

🕒 7:30 AM - 8:30 AM, May 3

📍 Promenade Ballroom & Hallway outside California Ballroom

Networki...

8:00 AM

Registration Open

🕒 8:00 AM - 5:00 PM, May 3

📍 Lobby

8:30 AM

Session 4: The Y of the sex differences

🕒 8:30 AM - 10:15 AM, May 3

📍 Pacific Ballroom 1-3

Symposia

Speaker



Anna Naumova
Associate Professor
McGill University

3 Subsessions

● **Histone demethylase independent redundancy of the X and Y chromosome homologs UTX and UTY during development**

🕒 8:30 AM - 8:55 AM, May 3

📍 Pacific Ballroom 1-3

● **The Battle of the Sexes: The contrasting roles of TSPY and TSPX in human oncogenesis**

🕒 8:55 AM - 9:20 AM, May 3

📍 Pacific Ballroom 1-3

● **The Y and methylation of transposons**

🕒 9:20 AM - 9:45 AM, May 3

📍 Pacific Ballroom 1-3

Session 5: Ovarian hormones in sex-specific brain plasticity and disease:molecular, cellular, and neuroimaging insights

🕒 8:30 AM - 10:15 AM, May 3

📍 Sierra Ballroom 1-2

Symposia

Speaker



Marija Kundakovic
Assistant Professor
Fordham University

3 Subsessions

● **Estrogenic modulation of neural circuits that control energy expenditure**

🕒 8:30 AM - 8:55 AM, May 3

📍 Sierra Ballroom 1-2

● **3D genome dynamics in the mouse brain across the estrous cycle**

🕒 8:55 AM - 9:20 AM, May 3

📍 Sierra Ballroom 1-2

● **From brain to cell and back again: Understanding the potential beneficial effects of estrogens in psychosis**

🕒 9:20 AM - 9:45 AM, May 3

📍 Sierra Ballroom 1-2

10:15 AM

Coffee Break

🕒 10:15 AM - 10:30 AM, May 3

📍 California Ballroom Foyer

Networki...

10:30 AM

Session 6: Mechanisms of sex differences in respiratory disease

🕒 10:30 AM - 12:15 PM, May 3

📍 Pacific Ballroom 1-3

Symposia

Speakers



Patricia Silveyra

Associate Professor
Indiana University School of Public Health



Alicia Rizzo

Fellow in Pulmonary and Critical Care Medicine
University of Colorado

4 Subsessions

● Estrogen regulation in pulmonary arterial hypertension

🕒 10:30 AM - 10:55 AM, May 3

📍 Pacific Ballroom 1-3

● Sex as a biological variable in the preterm lung: first step towards precision medicine

🕒 10:55 AM - 11:20 AM, May 3

📍 Pacific Ballroom 1-3

● Sex differences in airway smooth muscle cell transcriptome signatures in asthma

🕒 11:20 AM - 11:45 AM, May 3

📍 Pacific Ballroom 1-3

● Sex differences in alveolar epithelial glycocalyx degradation in ARDS

🕒 11:45 AM - 12:15 PM, May 3

📍 Pacific Ballroom 1-3

Session 7: NIH ORWH Science Policy Scholar Travel Award Symposium

🕒 10:30 AM - 12:15 PM, May 3

📍 Sierra Ballroom 1-2

Symposia

Speaker



Samia Noursi

social science analyst
NIH

3 Subsessions

● About the National Institutes of Health Office of Research on Women's Health: Over 30 Years of Research for the Health of Women

🕒 10:30 AM - 11:05 AM, May 3

● Alcohol Use, Behavioral and Mental Health Help-Seeking, and Treatment Satisfaction among Sexual Minority Women: Policy Implications

🕒 11:05 AM - 11:40 AM, May 3

● The Scientific Body of Knowledge – Whose Body Does It Serve? Factoring women's health into human brain imaging

🕒 11:40 AM - 12:15 PM, May 3

12:15 PM

Lunch on your own

🕒 12:15 PM - 1:30 PM, May 3

Equity, Diversity and Inclusion Workshop Luncheon

🕒 12:15 PM - 1:30 PM, May 3

📍 Pacific Ballroom 1-3

Workshop

OSSD Equity, Diversity, and Inclusion (EDI) Lunch - 2022

The first OSSD EDI lunch will be a discussion of what EDI means and how to overcome challenges in moving EDI efforts forward. The EDI committee will also share the strategies they've been employing to improve diversity and inclusion at OSSD, as well as get feedback from participants regarding new initiatives they would like the EDI committee to focus on. Please join us for a lively discussion!

Panelists: Farrah Madison, PhD, Stephanie Correa, PhD, Arbi Nazarian, PhD, and Debra Bangasser, PhD

🗨️ Speakers



Farrah Madison

Assistant Professor
Hope College



Stephanie Correa

Assistant Professor
UCLA



Debra Bangasser

Associate Professor of Psychology & Director of the Neuroscience Program in the College of Liberal Arts
Temple University



Arbi Nazarian

Associate Professor
Western University of Health Sciences

1:45 PM

Session 8: How variable and malleable is escape from X chromosome inactivation

🕒 1:45 PM - 3:30 PM, May 3

📍 Pacific Ballroom 1-3

Symposia

🗨️ Speakers



Christine Disteche

Professor
University of Washington



Sam Peeters

Postdoctoral Fellow
University of British Columbia

4 Subsessions

● 3D features of the genome impact escape from X inactivation in different cell types

🕒 1:45 PM - 2:10 PM, May 3

📍 Pacific Ballroom 1-3

● Genomic determinants of escape from X-chromosome inactivation

🕒 2:10 PM - 2:35 PM, May 3

📍 Pacific Ballroom 1-3

● Monosomy X in isogenic human iPSC-derived trophoblast model impacts expression modules preserved in human placenta

🕒 2:35 PM - 3:00 PM, May 3

📍 Pacific Ballroom 1-3

● B cell specific XIST complex enforces X-inactivation and restrains atypical B cells

🕒 3:00 PM - 3:30 PM, May 3

📍 Pacific Ballroom 1-3

Session 9: Cognitive effects of neurodegeneration

🕒 1:45 PM - 3:30 PM, May 3

📍 Sierra Ballroom 1-2

Symposia

👤 Speakers



Rhonda Voskuhl

Professor
University of California, Los Angeles



Margaret Fahnstock

Professor
McMaster University

4 Subsessions

● **A new approach to address the unmet need for a treatment targeting cognitive deficits at menopause**

🕒 1:45 PM - 2:10 PM, May 3

📍 Sierra Ballroom 1-2

● **Effect of gonadal hormones on pathology, autoimmunity and behavior in a mouse model of Alzheimer's Disease**

🕒 2:10 PM - 2:35 PM, May 3

📍 Sierra Ballroom 1-2

● **Characterizing the combined neuroprotective effects of estrogen and cytosine in a 6-OHDA mouse model of Parkinson's Disease**

🕒 2:35 PM - 3:00 PM, May 3

📍 Sierra Ballroom 1-2

● **Sex-specific effects of high fat diet on neuropathology in a mouse model of VCID**

🕒 3:00 PM - 3:30 PM, May 3

📍 Sierra Ballroom 1-2

3:30 PM

Coffee Break

🕒 3:30 PM - 3:45 PM, May 3

📍 California Ballroom Foyer

Networki...

3:45 PM

Session 10: Sex differences in cardiovascular health

🕒 3:45 PM - 5:00 PM, May 3

📍 Pacific Ballroom 1-3

Symposia

👤 Speakers



Stephanie Faubion

Professor and Chair, Department of Medicine; Penny and Bill George Director, Mayo Clinic Center for Women's Health; Medical Director, The North American Menopause Society
Mayo Clinic



Chrisandra Shufelt

Associate Director of the Barbra Streisand Women's Heart Center
Cedars Sinai Medical Center

3 Subsessions

● **Hormones and cardiovascular risk in transgender health**

🕒 3:45 PM - 4:05 PM, May 3

📍 Pacific Ballroom 1-3

● **Sex Differences in Obesity and Diabetes**

🕒 4:05 PM - 4:25 PM, May 3

📍 Pacific Ballroom 1-3

● **Sex differences in the trajectories of cardiovascular risk in midlife**

🕒 4:25 PM - 4:45 PM, May 3

📍 Pacific Ballroom 1-3

Session 11: Mechanisms of motivation: convergent and divergent sex differences of motivated behavior

🕒 3:45 PM - 5:00 PM, May 3

📍 Sierra Ballroom 1-2

Symposia

👤 Speakers



Georgia Hodes

Virginia Polytechnic Institute and State University



Debra Bangasser

Associate Professor of Psychology & Director of the Neuroscience Program in the College of Liberal Arts
Temple University

4 Subsessions

● **Early life stress alters motivation for natural rewards in a sex-dependent manner**

🕒 3:45 PM - 4:05 PM, May 3

📍 Sierra Ballroom 1-2

● **Not feeling up to it? How sex differences in the immune response to stress impact reward motivation**

🕒 4:05 PM - 4:25 PM, May 3

📍 Sierra Ballroom 1-2

● **Leveraging single-cell profiling to identify sex-specific and drug-responsive genetic programs in brain reward circuitry**

🕒 4:25 PM - 4:45 PM, May 3

📍 Sierra Ballroom 1-2

● **Neuroinflammatory drivers of nicotine use disorder: opportunities for precision medicine**

🕒 4:45 PM - 5:00 PM, May 3

📍 Sierra Ballroom 1-2

5:00 PM

Poster Session I

🕒 5:00 PM - 7:00 PM, May 3

📍 Bayview Ballroom (Interior)

Poster Session

Poster Session I

67 Subsessions

● **1. Toward a Theory of Help-Seeking Behavior for African American women survivors of intimate partner violence**

🕒 5:00 PM - 7:00 PM, May 3

● **2. About the National Institutes of Health Office of Research on Women's Health-Over 30 Years of Research for the Health of Women**

⌚ 5:00 PM - 7:00 PM, May 3

● **3. Sex Differences in the Effect of COX-2 Inhibition on Arterial Stiffness**

⌚ 5:00 PM - 7:00 PM, May 3

● **5. The Maternal X Chromosome Impairs Cognition and Accelerates Brain Aging Through Epigenetic Modulation in Female Mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **6. Influence of Sex and Sex Hormones on a Mouse Model of Multi-Etiology Dementia**

⌚ 5:00 PM - 7:00 PM, May 3

● **7. Mechanistic Heterogeneity in Human Male and Female Neutrophil Responses to a Chemorepellent**

⌚ 5:00 PM - 7:00 PM, May 3

● **8. Characterization and Anti-Inflammatory Effects of a Novel Subtype of Regenerative Exosomes in Viral Myocarditis**

⌚ 5:00 PM - 7:00 PM, May 3

● **9. Aging Awakens Transcription of the Inactive X Chromosome (Xi) in Cells of the Female Hippocampus**

⌚ 5:00 PM - 7:00 PM, May 3

● **10. Sex Differences in the Effects of High Fat Diet on Neuroinflammation in a Mouse Model of VCID**

⌚ 5:00 PM - 7:00 PM, May 3

● **11. Adolescent social isolation disrupts sex-specific food reward and developmental dopaminergic and thyroid hormone expression profiles in the medial amygdala of adult mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **12. Brain-Gut-Microbiome Signatures Differentiate Bowel Habit Subtypes In Women With IBS**

⌚ 5:00 PM - 7:00 PM, May 3

● **13. The Effect of Targeted State Policies on Mental Health Distress among Sexual and Gender Minority Adults in the United States**

⌚ 5:00 PM - 7:00 PM, May 3

● **14. Mechanisms of Sex Differences in Changes in Cardiorespiratory Fitness with Exercise Training**

⌚ 5:00 PM - 7:00 PM, May 3

● **15. Post-menopausal impairment in brain arteriolar K⁺ channel function in a mouse model of Alzheimer's disease.**

⌚ 5:00 PM - 7:00 PM, May 3

● **16. Optogenetic Stimulation of BNST Vasopressin Neurons Increases Sex-Specific Social Approach and Communication in Mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **17. The VPAC2 Receptor Mediates Resilience to Stress in Female, but Not Male Mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **4. Serum Estradiol Levels and Cardiovascular Risk Associated with Gender-Affirming Hormone use in Transgender Women: A Systematic Review and Meta-Analysis**

⌚ 5:00 PM - 7:00 PM, May 3

● **18. Postnatal Developmental Trajectory of Sex-Biased Gene Expression in the Mouse Pituitary Gland**

⌚ 5:00 PM - 7:00 PM, May 3

● **19. A comparison of prediction equations for estimating glomerular filtration rate in transgender individuals on gender affirming hormone therapy: A protocol**

⌚ 5:00 PM - 7:00 PM, May 3

● **21. A Systems biology approach to understanding genetic heterogeneity in sex differences**

⌚ 5:00 PM - 7:00 PM, May 3

● **22. Track-by-Day: A Standardized Approach to Estrous Cycle Monitoring in Biobehavioral Research**

⌚ 5:00 PM - 7:00 PM, May 3

● **23. Sex Differences in Mitochondria during Viral Myocarditis**

⌚ 5:00 PM - 7:00 PM, May 3

● **24. Evaluating Endocrine-Immune Interactions on Social Behaviour in a Rodent Model of Maternal Immune Activation**

⌚ 5:00 PM - 7:00 PM, May 3

● **25. Sex Differences in Aging and in the Regenerative Effects of iPSC-Derived**

Immune Cells

⌚ 5:00 PM - 7:00 PM, May 3

● 26. Sex differences in neural activation related to negative cognitive bias after chronic stress exposure

⌚ 5:00 PM - 7:00 PM, May 3

● 27. Binge Ethanol in Adolescence vs Adulthood: Differences in Spatial Memory, Ethanol Sedation, and Ethanol Metabolism

⌚ 5:00 PM - 7:00 PM, May 3

● 20. Serum Testosterone and Cardiovascular Risk in Adult Transgender Men: A Systematic Review and Meta-Analysis

⌚ 5:00 PM - 7:00 PM, May 3

● 28. The Reversal of Antibiotic-Induced Socio-Sexual Behavioral Deficits via Cecal Microbiota Transplantation but Not Androgen Treatment

⌚ 5:00 PM - 7:00 PM, May 3

● 29. Construction of Copy Number Variation Map Identifies Small Regions of Overlap and Candidate Genes for Atypical Female Genital Development

⌚ 5:00 PM - 7:00 PM, May 3

● 30. Role of gonadal hormones and dutasteride treatment on the microbiota-gut-brain axis in a male and female murine model of Parkinson's disease.

⌚ 5:00 PM - 7:00 PM, May 3

● 31. Adolescent Hormonal Contraceptive Administration Impacts the Prefrontal Cortex of Female Rats.

⌚ 5:00 PM - 7:00 PM, May 3

● 32. Sex Differences in Contextual Pattern Separation and Functional Connectivity for Fear Memory.

⌚ 5:00 PM - 7:00 PM, May 3

● 33. Sex Differences in Learning-Induced Protein Degradation in the Dorsal Hippocampus of Male and Female Mice

⌚ 5:00 PM - 7:00 PM, May 3

● 34. Maternal Age and Estradiol Influence Cognition in Middle-aged Rats.

⌚ 5:00 PM - 7:00 PM, May 3

● 35. The Effects of Hormonal Contraception on Auditory Emotional Memory

⌚ 5:00 PM - 7:00 PM, May 3

● 36. Female-biased gene regulatory networks in fibrous atherosclerotic plaques point to extracellular matrix producing fibroblast-like Smooth Muscle Cells as key players

⌚ 5:00 PM - 7:00 PM, May 3

● 37. High prevalence of XCI skewing in female atherosclerotic plaques

⌚ 5:00 PM - 7:00 PM, May 3

● 38. Sex Chromosomes and Gonadal Hormones Drive Sex Differences in Hepatic Gene Expression and Response to Statins

⌚ 5:00 PM - 7:00 PM, May 3

● 39. Sexual Dimorphism in Atrial Fibrillation: Investigating the role of atrial fibrosis

⌚ 5:00 PM - 7:00 PM, May 3

● 40. The Role of Sex and the Gut Microbiome in Mouse Models of Depression

⌚ 5:00 PM - 7:00 PM, May 3

● 41. Estrogen Increases NMDA Receptor Expression in Kidney Principal Cells

⌚ 5:00 PM - 7:00 PM, May 3

● 42. Sex differences in lung inflammation in a mouse model of allergic asthma: Potential role of the microbiome

⌚ 5:00 PM - 7:00 PM, May 3

● 43. Effects of Pubertal Blockade and Testosterone on Endothelial Function in Transgender Males

⌚ 5:00 PM - 7:00 PM, May 3

● 45. Examining the effects of early-life immune activation and later-life social stress on behavioral and neural outcomes during development

⌚ 5:00 PM - 7:00 PM, May 3

● 46. The Scientific Body of Knowledge – Whose Body Does It Serve? Factoring women's health into human brain imaging

⌚ 5:00 PM - 7:00 PM, May 3

● 47. Linking gametologue expression to sex differences in gene expression and disease

⌚ 5:00 PM - 7:00 PM, May 3

● 48. Sex Differences In Brain Tumor Glutamine Metabolism Reveal Sex-Specific Vulnerabilities To Treatment

⌚ 5:00 PM - 7:00 PM, May 3

● **49. Arcuate nociceptin/orphanin FQ (N/OFQ) neurons inhibit nearby proopiomelanocortin (POMC) neurons in a sex-and energy status-dependent manner in prepronociceptin (PNOC)-cre mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **50. Improving antidepressant treatment in the postpartum by manipulating immune signalling**

⌚ 5:00 PM - 7:00 PM, May 3

● **44. Effects of Short-Term Ovarian Hormone Suppression on Blood Pressure in Postmenopausal Women**

⌚ 5:00 PM - 7:00 PM, May 3

● **51. Oral Contraceptives: Stress responses, Depression, and Motivation in Mice**

⌚ 5:00 PM - 7:00 PM, May 3

● **52. Effect of prenatal nicotine and THC on cognitive behaviors in adolescent male and female rats.**

⌚ 5:00 PM - 7:00 PM, May 3

● **53. CRF Infusion into the Medial Septum Modulates Hippocampal Cholinergic Transmission in Male and Female Rats**

⌚ 5:00 PM - 7:00 PM, May 3

● **54. Reproductive Status Shapes Working Memory Circuitry in Midlife Women**

⌚ 5:00 PM - 7:00 PM, May 3

● **55. Egr1 is a sex-specific, estrous cycle-dependent regulator of neuronal chromatin organization and behavioral plasticity**

⌚ 5:00 PM - 7:00 PM, May 3

● **56. Neural Sexual Dimorphisms and Estrous Cycling in Four Core Genotypes-like Rats**

⌚ 5:00 PM - 7:00 PM, May 3

● **57. Sex differences in alcohol dependence: a role for steroid sex hormones and related proteins**

⌚ 5:00 PM - 7:00 PM, May 3

● **58. Rapid exercise-induced stress resilience in females is independent of running distance**

⌚ 5:00 PM - 7:00 PM, May 3

● **59. Sex differences in rodent model of context-dependent reward prediction**

⌚ 5:00 PM - 7:00 PM, May 3

● **60. Impact of X Chromosome Genes on Preadipocyte and Mature Adipocyte Function**

⌚ 5:00 PM - 7:00 PM, May 3

● **61. Reproductive Senescence Alters Mitochondrial Function Post-Stroke**

⌚ 5:00 PM - 7:00 PM, May 3

● **62. Chromatin footprints in the ventral hippocampus in a double-hit model of heterotypic acute stress.**

⌚ 5:00 PM - 7:00 PM, May 3

● **63. Allelic skewing as a possible explanation for the female bias in Sjögren's syndrome**

⌚ 5:00 PM - 7:00 PM, May 3

● **64. Genetic deletion of the $\alpha 7$ nAChR reduces hippocampal granule and pyramidal cells in both sexes but specifically impairs pattern separation in males**

⌚ 5:00 PM - 7:00 PM, May 3

● **65. Sex-Specific Effects of Inhibiting Glutamatergic Cells in the Hippocampus on Stress-Induced Cognitive Bias**

⌚ 5:00 PM - 7:00 PM, May 3

● **66. Pharmacologic, but not physiological, increases in plasma fibroblast growth factor 21 (FGF21) influences sucrose and protein intake in females.**

⌚ 5:00 PM - 7:00 PM, May 3

● **67. The VPAC2 Receptor Mediates Resilience to Stress in Female, but Not Male Mice**

⌚ 5:00 PM - 7:00 PM, May 3

7:00 PM

Trainee Social Event

⌚ 7:00 PM - 9:00 PM, May 3

[Networki...](#)

Organized by:

Mary Beth Bielicki, University of Delaware
Elise Lemanski, University of Delaware

Wed, May 04, 2022

7:30 AM

Breakfast

🕒 7:30 AM - 8:30 AM, May 4

📍 Promenade Ballroom & Hallway outside California Ballroom

Networki...

8:00 AM

Registration Open

🕒 8:00 AM - 5:00 PM, May 4

📍 Pacific Ballroom 1-3

OSSD Business Meeting (open to all members)

🕒 8:00 AM - 8:30 AM, May 4

📍 Pacific Ballroom 1-3

OSSD

8:30 AM

Session 12: Specialized Centers of Research Excellence (SCORE) on Sex Differences

🕒 8:30 AM - 10:15 AM, May 4

📍 Pacific Ballroom 1-3

Symposia

NIH, ORWH Specialized Centers of Research Excellence (SCORE) on Sex Differences

Cecile D. Lahiri MD, MSc, Cesar Romero, MD, Emory University; Michelle M. Mielke, PhD, Colleen Bartman, PhD Mayo Clinic; C. Noel Bairey Merz, MD, Nethika R. Ariyasinghe, Cedars-Sinai Medical Center; Chyren Hunter PhD, ORWH. The National Institutes of Health (NIH) Office of Research on Women's Health (ORWH) supported SCORE Programs, co-sponsored by NIH Aging, Alcohol Abuse and Alcoholism, Drug Abuse, Diabetes and Digestive and Kidney Diseases and Mental Health institutes, are vital hubs for research on sex and gender that also provide pilot funding and training as part of a Career Enhancement Core (CEC). SCORE investigators provide leadership in the development of standards and policies for the consideration of sex as a biological variable (SABV) and sex differences in research. Three SCORE investigators and CEC seed grant awardees will be featured, followed by a panel discussion moderated by Chyren Hunter PhD, ORWH. Cecile D. Lahiri MD, MSc and Cesar Romero, MD of the Emory SCORE on Sex Differences will discuss the influence of biological sex on microbial-host-pathogen interactions, using HIV as a model to explore HIV-induced immune activation, chronic inflammation and estrogen insensitivity in aging women. Michelle M. Mielke, PhD and Colleen Bartman, PhD of the Mayo Clinic SCORE will describe their research examining the long-term effects of premenopausal bilateral oophorectomy on physical and cognitive function and Alzheimer's disease. C. Noel Bairey Merz, MD and Nethika R. Ariyasinghe, PhD of the Cedars-Sinai Medical Center MAE-WEST - Microvascular Aging and Eicosanoids - Women's Evaluation of Systemic aging Tenacity SCORE Program ("You are never too old to become younger!") will discuss growing evidence pointing to the potential importance of chronic inflammation and small blood vessel dysfunction as key determinants of the sex differences seen in age-related end organ disease.

🚩 Speakers



Cecile Lahiri

Associate Professor of Medicine
Emory University



Cesar Romero

Emory University



Michelle Mielke

Professor
Mayo Clinic



Colleen Bartman

Senior Research Fellow
Mayo Clinic



C. Noel Bairey Merz

Smidt Heart Institute, Cedars-Sinai Medical Center



Nethika Ariyasinghe

Postdoctoral Research Fellow
Cedars-Sinai Medical Center



Chyren Hunter

NIH

Session 13: Emerging concepts in data analysis of sex differences

🕒 8:30 AM - 10:15 AM, May 4

📍 Sierra Ballroom 1-2

Symposia

🚩 Speakers



Arjun Krishnan

Assistant Professor
Michigan State University



Joseph Ippolito

Washington University School of Medicine

3 Subsessions

● Glucose-mediated serine biosynthesis in lung cancer predicts sex-specific response to chemotherapy

🕒 8:30 AM - 8:55 AM, May 4

📍 Sierra Ballroom 1-2

● A data-driven approach to unravel sex- and age-specific gene signatures and genome-scale gene interaction networks

🕒 8:55 AM - 9:20 AM, May 4

📍 Sierra Ballroom 1-2

● Applying dense-sampling to reveal endocrine modulation of the central nervous system

🕒 9:20 AM - 9:45 AM, May 4

📍 Sierra Ballroom 1-2

10:15 AM

Coffee Break

🕒 10:15 AM - 10:30 AM, May 4

📍 California Ballroom Foyer

Networki...

10:30 AM

Session 14: Endocrine aging and novel hormone therapies: impacts on physiology and the brain

🕒 10:30 AM - 12:15 PM, May 4

📍 Pacific Ballroom 1-3

Symposia

👤 Speakers



Kristen Zuloaga

Associate Professor
Albany Medical College



Paulo Pires

Assistant Professor
University of Arizona

4 Subsessions

● **Targeting estrogen receptor beta as a treatment for alleviating memory loss and hot flashes**

🕒 10:30 AM - 10:55 AM, May 4

📍 Pacific Ballroom 1-3

● **Influence of endocrine aging on metabolism and memory: protective effects of brain-specific estrogen therapy**

🕒 10:55 AM - 11:20 AM, May 4

📍 Pacific Ballroom 1-3

● **Menopause as a modulator of sex differences in levels of tau deposition in healthy adults**

🕒 11:20 AM - 11:45 AM, May 4

📍 Pacific Ballroom 1-3

● **Post-menopausal impairment in brain arteriolar K⁺ channel function in a mouse model of Alzheimer's disease**

🕒 11:45 AM - 12:15 PM, May 4

📍 Pacific Ballroom 1-3

Session 15: Sex differences in myocarditis

🕒 10:30 AM - 12:15 PM, May 4

📍 Sierra Ballroom 1-2

Symposia

👤 Speakers



Katelyn Bruno

Assistant Professor Of Medicine
Mayo Clinic



Bettina Heidecker

Cardiologist
Charité, Universitätsmedizin Berlin

4 Subsessions

● Sex differences in myocarditis from large European cohort

🕒 10:30 AM - 10:55 AM, May 4

📍 Sierra Ballroom 1-2

● Sex differences in COVID infection and vaccine related myocarditis

🕒 10:55 AM - 11:20 AM, May 4

📍 Sierra Ballroom 1-2

● Sex differences in mitochondria during acute viral myocarditis

🕒 11:20 AM - 11:45 AM, May 4

● Sex difference in IL-17 response that promotes progression from clinical myocarditis to DCM

🕒 11:45 AM - 12:15 PM, May 4

📍 Sierra Ballroom 1-2

12:15 PM

Lunch on your own

🕒 12:15 PM - 1:30 PM, May 4

Trainee-Mentor LUNCH

🕒 12:15 PM - 1:30 PM, May 4

📍 Promenade Ballroom

Workshop

Organized by Brittany Osborne and hosted by Charly Abi Ghanem

The annual Trainee-Mentor Lunch is a roundtable event for trainees to have the unique opportunity to sit down with accomplished researchers in the field of sex differences to have candid discussions about topics such as work/life balance, time management, and promoting sex differences research.

1:45 PM

Elizabeth Young New Investigator Award Symposium

🕒 1:45 PM - 3:30 PM, May 4

📍 Pacific Ballroom 1-3

Elizabeth Young New Investigators S...

👤 Speakers



Katelyn Bruno

Assistant Professor Of Medicine
Mayo Clinic



Karen Reue

University of California, Los Angeles

4 Subsessions

● **Optogenetic stimulation of BNST vasopressin neurons increases sex-specific social approach and communication in mice**

🕒 2:10 PM - 2:30 PM, May 4

📍 Pacific Ballroom 1-3

● **Mechanistic Heterogeneity in Human Male and Female Neutrophil Responses to a Chemorepellent**

🕒 2:30 PM - 2:50 PM, May 4

📍 Pacific Ballroom 1-3

● **The Maternal X Chromosome Impairs Cognition and Accelerates Brain Aging Through Epigenetic Modulation in Female Mice**

🕒 2:50 PM - 3:10 PM, May 4

📍 Pacific Ballroom 1-3

● **Toward a Theory of Help-Seeking Behavior for African American women survivors of intimate partner violence**

🕒 3:10 PM - 3:30 PM, May 4

📍 Pacific Ballroom 1-3

3:30 PM

Coffee Break

🕒 3:30 PM - 3:45 PM, May 4

📍 Promenade Ballroom

[Networki...](#)

3:45 PM

Capstone Lecture: The prenatal sex steroid theory of autism

🕒 3:45 PM - 5:00 PM, May 4

📍 Pacific Ballroom 1-3

[Keynote](#)

Capstone Lecture

The prenatal sex steroid theory of autism

Simon Baron-Cohen, Autism Research Centre, Cambridge University

Multiple studies now show that in the general population, females on average show higher levels of empathy and males on average show a stronger drive to systemize. Empathy involves both a cognitive element (recognizing another person's mental state) and an affective element (responding to another person's mental state with an appropriate emotion). Systemizing is the drive to analyse or build systems (whether these are mechanical, mathematical, musical, natural, abstract, motoric, or collectible). Systems are anything that follows if-and-then rules. I present evidence that autistic people score below average on different measures of cognitive empathy and that they are intact and even sometimes superior on measures of systemizing. If one takes the difference (D scores) between one's scores on empathy and on systemizing then autism can be viewed as an extreme of the typical male brain. Autism is strongly genetic and is diagnosed more often in males than females. This is likely to be true even after taking into account under-diagnosis of females. One candidate biological epigenetic mechanism that might influence typical sex differences and may play a role in 'masculinizing' the autistic brain is prenatal sex steroid hormones, that shape brain development via epigenetic and apoptotic mechanisms. I summarize work from our lab showing how levels of prenatal sex steroid hormones such as testosterone and estrogen are associated with typical sex differences in empathy and systemizing and autistic traits, and are elevated in autistic people.

Books

Baron-Cohen, S, (2003) *The Essential Difference: men, women and the extreme male brain*.

Penguin/Basic Books.

Baron-Cohen, S, et al (2005) *Prenatal testosterone in mind: Studies of amniotic fluid*. MIT Press/Bradford Books.

Baron-Cohen, S, (2011) *Zero Degrees of Empathy*. Penguin/Basic Books

Baron-Cohen, S, (2020) *The Pattern Seekers*. Penguin/Basic Books.

Links: www.autismresearchcentre.com

Key Journal Articles

Baron-Cohen, S, et al (2005) Sex differences in the brain: implications for explaining autism. *Science*, 310, 819-823.

Baron-Cohen, S, et al (2011) Why are Autism Spectrum Conditions more prevalent in males? *Public Library of Science Biology*, 9, 1-10; and Supplementary Material.

Baron-Cohen, S, et al (2015) 'The "Reading the Mind in the Eyes" Test: Complete absence of typical sex difference in ~400 men and women with autism'. *PLoS ONE*.

Baron-Cohen, S, et al (2015) Elevated fetal steroidogenic activity in autism. *Molecular Psychiatry*, 1-8. and Supplementary Material.

Baron-Cohen, S, et al (2019) Foetal estrogens and autism. *Molecular Psychiatry*. 25, 2970-2978.

Greenberg, D, M, et al (2018) Testing the Empathizing-Systemizing theory of sex differences and the Extreme Male Brain theory of autism in half a million people. *PNAS*, 115, 12152-7.

Lai, et al (2013) Biological sex affects the neurobiology of autism. *Brain*, 136, 2799-2815.

Lombardo, et al (2012) Fetal testosterone influences sexually dimorphic gray matter in the human brain. *Journal of Neuroscience*. 32(2): 674-80.

Pohl, et al (2014) Uncovering steroidopathy in women with autism: a latent class analysis. *Molecular Autism*, 5, 27.

Ruta, L, et al (2011) Increased serum androstenedione in adults with Autism Spectrum Conditions. *Psychoneuroendocrinology*. 36(8), 1154-63.

Schwarz, E, et al (2010) Sex-specific serum biomarker patterns in adults with Asperger's Syndrome. *Molecular Psychiatry*. 16 (12): 1213-20.

Warrier, V, et al (2018) Genome-wide meta-analysis of cognitive empathy: heritability, and correlates with sex, neuropsychiatric conditions and cognition. *Molecular Psychiatry*, 23, 1402-1409.

Warrier, V, et al (2018) Genome-wide analyses of self-reported empathy: correlations with autism, schizophrenia, and anorexia nervosa. *Translational Psychiatry*, 8, 8-10.

🗨️ Speakers



Simon Baron-Cohen

University of Cambridge



DeLisa Fairweather

Associate Professor
Mayo Clinic

Poster Session II

🕒 5:15 PM - 7:15 PM, May 4

📍 Bayview Ballroom (Interior)

Poster Session

Poster Session II

67 Subsessions

● **100. Hormone levels, gonadal histology, body growth in Four Core Genotypes-like rats dissociating hormonal and sex chromosomal effects on sexual differentiation**

🕒 5:15 PM - 7:15 PM, May 4

● **101. Investigating the Role of Androgen Receptor in Mouse Social Behavior**

🕒 5:15 PM - 7:15 PM, May 4

● **102. Locomotor Activity and Exploratory Behavior in Mice Lacking Androgen Receptor**

🕒 5:15 PM - 7:15 PM, May 4

● **104. BPA Effects on Human Endocrine System and Reproduction**

🕒 5:15 PM - 5:15 PM, May 4

● **105. Gender Differences in Sudden Cardiac Death Prevalence and Predictors**

🕒 5:15 PM - 7:15 PM, May 4

● **106. Effects of sex and oxytocin treatment on anxiety-like behavior after cagemate separation**

🕒 5:15 PM - 7:15 PM, May 4

● **107. Resilience and its Neural Correlates in Irritable Bowel Syndrome: Influence of Sex**

🕒 5:15 PM - 7:15 PM, May 4

● **108. Less age-related hippocampal volume decline among female APOE e4 non-carriers**

🕒 5:15 PM - 7:15 PM, May 4

● **110. Genetic correlations of alcohol consumption and alcohol use disorder against sex hormones in females and males**

🕒 5:15 PM - 7:15 PM, May 4

● **111. Declining Contribution of Environmental Factors Underlies the Gradual Decrease in Mean Age at Menarche Across the 20th Century**

🕒 5:15 PM - 7:15 PM, May 4

● **112. Females at low-estrogen stages of the cycle during mild traumatic brain injury present worse TBI outcomes than females at high-estrogen levels**

🕒 5:15 PM - 7:15 PM, May 4

● **113. Progesterone-Oxytocin Interactions in Motivation for Cocaine.**

🕒 5:15 PM - 7:15 PM, May 4

● **115. Faster decline in memory amongst women with four or more children**

🕒 5:15 PM - 7:15 PM, May 4

● **116. Role of Sex-Associated DNA Methylation Changes in Irritable Bowel Syndrome Pathophysiology**

🕒 5:15 PM - 7:15 PM, May 4

● **117. Loss of ovarian function in a mouse model of Alzheimer's disease modulates forebrain metabolic profiles: Exercise produces an adaptive protective response**

🕒 5:15 PM - 7:15 PM, May 4

● **119. Cannabis Use and Emotion Dysregulation Contribute to Sex Differences in Fear Extinction**

🕒 5:15 PM - 7:15 PM, May 4

● **120. Impact of Midlife Metabolic Health on Memory Function: Role of Sex and Reproductive Aging**

🕒 5:15 PM - 7:15 PM, May 4

● **121. Sex-differences in KLF5 transcriptional regulation in glioblastoma**

🕒 5:15 PM - 7:15 PM, May 4

● **122. Sex-specific effects of arsenic exposure on the risk of influenza infections**

🕒 5:15 PM - 7:15 PM, May 4

● **123. Oral Contraceptive Use Suppresses Environmental Influences on Age at Natural Menopause**

🕒 5:15 PM - 7:15 PM, May 4

● **125. Translation of Cancer Sex Differences into Clinical Practice**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **126. Microglial Responses to High Fat Diet Vary by Brain Region and Sex**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **127. Navigation strategy tied to sex steroid hormones**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **128. Dissecting the role of hypothalamic estrogen receptor alpha in the regulation of body temperature in mice**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **131. Non-Genomic Estrogen Effects on Mitochondria in Human Bronchial Epithelium**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **132. Sex and hormonal contraceptive use contributes to differences in fear**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **133. Differential effects of nucleus accumbens deep brain stimulation on cocaine reinstatement in female and male rats.**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **134. The sex chromosomes regulate sex-biased networks throughout cardiac development.**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **135. Sex, age, and bone compartment dependent consequences of Fragile X mental retardation 1 deletion in mice.**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **136. Exploring the associations between gender-related variables and physical activity levels in women with atrial fibrillation.**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **137. Sex-Specific Impact of Excessive Daytime Sleepiness on Mortality Risk in Obstructive Sleep Apnea**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **138. The Second X Chromosome Mediates Stroke Sensitivity in The Aged**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **139. Diurnal fluctuations in testosterone tied to variation in intrinsic functional connectivity in a densely sampled male**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **140. Antagonism of astrocytic glutamate transporter 1 in the dorsal hippocampus blocks the memory-enhancing effects of 17-beta estradiol in ovariectomized mice**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **141. Sex Differences in Arterial Hemodynamics in Patients with Degenerative Thoracic Aortic Aneurysms**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **142. Characterizing sex specific changes in astrocytic mitochondria in an AAV-alpha-synuclein model of early Parkinson's disease**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **143. Sex Differences in Novel Transgenic Mice with Constitutively Upregulated Acetylcholine Receptors: Implications for Parkinson's Disease**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **144. The impact of testosterone on Coxsackievirus B3 pathogenesis**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **145. Hormonal Mechanisms May Contribute To Sex Differences In Migraine**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **146. Age-, sex-disparities in dysregulated hepatic one-carbon metabolism (OCM) in patients with nonalcoholic fatty liver disease (NAFLD)**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **147. Estrous cycle modulation of fear extinction and relapse**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **148. An International Comparison of Postoperative Pain Management in Patients Undergoing Orthopedic Surgery**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **150. Assessing the Extent to Which Mobile Health Applications Integrate Sex and Gender: A Multiple Sclerosis Example**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **151. Sex Differences Among U.S. Active Duty Service Members With Posttraumatic Stress Disorder and Comorbid Disorders**

Ⓞ 5:15 PM - 7:15 PM, May 4

● **152. X-linked histone demethylase dosage in pre-adipocytes influences sex differences in energy expenditure and cold tolerance**

Ⓞ 5:15 PM - 7:15 PM, May 4

- **153. Sex differences in the effects of GLP-1-estradiol to mitigate detrimental effects of a high-fat high-sugar diet**
 ☉ 5:15 PM - 7:15 PM, May 4
- **155. Testosterone and Aromatase levels are linked to COVID-19 disease severity**
 ☉ 5:15 PM - 7:15 PM, May 4
- **156. In Utero Response to Prenatal Infection of a Novel Rat-Adapted Zika Virus**
 ☉ 5:15 PM - 7:15 PM, May 4
- **157. Phenotypic sex and sex chromosome complement impact DNA methylation in a tissue-specific manner between mouse liver and brain**
 ☉ 5:15 PM - 7:15 PM, May 4
- **158. The Influence of the Y Chromosome on Autosomal DNA Methylation in the Mouse**
 ☉ 5:15 PM - 7:15 PM, May 4
- **160. APOEε4 genotype differentially influences hippocampal neurogenesis in middle age depending on sex**
 ☉ 5:15 PM - 7:15 PM, May 4
- **161. Sex Differences in Immune Crosstalk between Allo-immunity and Ischemia-Reperfusion Injury in Liver Transplantation**
 ☉ 5:15 PM - 7:15 PM, May 4
- **162. Gender Differences in Patients with Ventricular Arrhythmias Undergoing Catheter Ablation**
 ☉ 5:15 PM - 7:15 PM, May 4
- **163. The diagnostic potential of female-specific plaque methylation patterns in cell-free DNA**
 ☉ 5:15 PM - 7:15 PM, May 4
- **164. Effects of Exposure to Violence on Telomere Length Operate through Different Pathways in Young African American Adult Females and Males**
 ☉ 5:15 PM - 7:15 PM, May 4
- **165. In mouse models of Alzheimer's disease and mixed dementia, females are more severely affected by high fat diet than males**
 ☉ 5:15 PM - 7:15 PM, May 4
- **166. Sex Differences in Stroke Outcome Correspond to Rapid and Severe Changes in Gut Permeability in Adult Sprague-Dawley Rats**
 ☉ 5:15 PM - 7:15 PM, May 4
- **168. Exploring Sex-Differences and a Role for the 5-HT System in Early Life Stress-Induced Compulsive Ethanol Consumption in Adulthood**
 ☉ 5:15 PM - 7:15 PM, May 4
- **169. Genetic deletion of mineralocorticoid receptors in CA2 impairs the precision of behavioral circadian rhythmicity in a sex-dependent manner**
 ☉ 5:15 PM - 7:15 PM, May 4
- **170. Sex Differences in Norepinephrine and Dopamine Release in the Hippocampus During Contextual Fear Conditioning**
 ☉ 5:15 PM - 7:15 PM, May 4
- **171. Characterizing Sex Differences in Automated Home Cage Systems**
 ☉ 5:15 PM - 7:15 PM, May 4
- **172. Investigating neurogenesis dynamics in the hippocampus of males and females in an animal model of late onset sporadic Alzheimer's Disease**
 ☉ 5:15 PM - 7:15 PM, May 4
- **173. The effects of advanced maternal age on neuroplasticity in the hippocampus**
 ☉ 5:15 PM - 7:15 PM, May 4
- **174. Developmental Programming of Sex Differences in Mast Cells: Role of Androgen Receptors**
 ☉ 5:15 PM - 7:15 PM, May 4
- **175. Androgen Action Within the Vomeronasal Organ Contribute to the Sexual Differentiation of the Brain and Behaviour**
 ☉ 5:15 PM - 7:15 PM, May 4
- **176. Winning increases aggression in postpartum female rats**
 ☉ 5:15 PM - 7:15 PM, May 4
- **177. Sex differences in the effects of prior-social isolation stress on stroke severity and outcomes in middle-aged rats**
 ☉ 5:15 PM - 7:15 PM, May 4

7:30 PM

Awards Reception

🕒 7:30 PM - 11:59 PM, May 4

📍 Bayview Rooftop Balcony

Networki...

Join us for the Awards Reception with DJ and dancing!

Thu, May 05, 2022

7:30 AM

Breakfast

🕒 7:30 AM - 8:30 AM, May 5

📍 Promenade Ballroom & Hallway outside California Ballroom

Networki...

8:00 AM

Registration Open

🕒 8:00 AM - 11:00 AM, May 5

📍 Pacific Ballroom 1-3

8:30 AM

Session 16: Sex differences in stroke pathophysiology and pharmacology

🕒 8:30 AM - 10:15 AM, May 5

📍 Pacific Ballroom 1-3

Symposia

🗣️ Speakers



Fudong Liu

University of Texas Health Science Center at Houston McGovern Medical School



Ami Raval

Associate professor (research)
University of Miami

4 Subsessions

● Sex specific effects of maternal microbiome on cerebrovascular risk factors in offspring

🕒 8:30 AM - 8:55 AM, May 5

📍 Pacific Ballroom 1-3

● Sex differences in post-stroke whole body vibration therapy on the cognitive outcomes

🕒 8:55 AM - 9:20 AM, May 5

📍 Pacific Ballroom 1-3

● Sex differences in anxiety-like behavior following neonatal brain injury

🕒 9:20 AM - 9:45 AM, May 5

📍 Pacific Ballroom 1-3

● Sex differences in the efficacy of microRNA stroke therapies

🕒 9:45 AM - 10:15 AM, May 5

📍 Pacific Ballroom 1-3

Session 17: Sex differences in COVID-19-related outcomes

🕒 8:30 AM - 10:15 AM, May 5

📍 Sierra Ballroom 1-2

Symposia

🚩 Chair



Janet Wei

Assistant Professor of Cardiology and Biomedical Sciences
Cedars-Sinai Medical Center



Katelyn Bruno

Assistant Professor Of Medicine
Mayo Clinic

4 Subsessions

● **Improvement in men with severe COVID-19 with progesterone**

🕒 8:30 AM - 8:55 AM, May 5

📍 Sierra Ballroom 1-2

● **Why is post COVID syndrome, including postural orthostatic tachycardia (POTS), more common in women than men?**

🕒 8:55 AM - 9:20 AM, May 5

📍 Sierra Ballroom 1-2

● **Sex differences in mortality in COVID-19 patients administered convalescent plasma as part of the United States Convalescent Plasma Expanded Access Program**

🕒 9:20 AM - 9:45 AM, May 5

📍 Sierra Ballroom 1-2

● **Gender and the Health Care Workforce During the COVID-19 Pandemic**

🕒 9:45 AM - 10:15 AM, May 5

📍 Sierra Ballroom 1-2

10:15 AM

Coffee Break

🕒 10:15 AM - 10:30 AM, May 5

📍 California Ballroom Foyer

Networki...

10:30 AM

Session 18: Leading young investigator submissions

🕒 10:30 AM - 12:15 PM, May 5

📍 Pacific Ballroom 1-3

Symposia

🚩 Speaker



Alex DeCasien

NIMH

4 Subsessions

● **Aging awakens transcription of the inactive X chromosome (Xi) in cells of the female hippocampus**

🕒 10:30 AM - 10:55 AM, May 5

● **Cell sex and sex hormones modulate kidney glucose and glutamine metabolism in health and diabetes**

🕒 10:55 AM - 11:20 AM, May 5

📍 Pacific Ballroom 1-3

● **Linking X-Y gametologue co-expression patterns to sex differences in disease**

🕒 11:20 AM - 11:45 AM, May 5

📍 Pacific Ballroom 1-3

● **Sex and age difference effects on EV treatment of myocarditis**

🕒 11:45 AM - 12:15 PM, May 5

📍 Pacific Ballroom 1-3

Session 19: Sex-biased brain states and network activity

🕒 10:30 AM - 12:15 PM, May 5

📍 Sierra Ballroom 1-2

Symposia

Sex differences in the presentation of many neuropsychiatric disorders imply differences in neurocognitive processing and strategies that are directed by specific brain networks. Taking the example of substance use disorders, evidence suggests that females begin drug seeking later in development, progress to addiction more rapidly and are more likely to relapse compared to males. Drug use is also more likely to be driven by stress or pain relief for females in contrast to impulsivity, which is a factor for males, and is more commonly associated with co-morbid affective disorders, such as depression for females. These different characteristics of drug use suggest that there are inherent sex differences in the cognitive processes that underlie addiction, stress and pain and the brain networks that shape these processes. The identification of sex differences in brain network activity is essential for fundamental knowledge of how the brain processes and responds to drugs and external stimuli. Importantly, this knowledge has the potential to inspire novel personalized treatments of pain, stress-related diseases and substance use disorders, including those using neuromodulation. This panel brings together diverse expertise to discuss new developments in functional imaging, computational approaches for analyzing brain network activity including the application of network theory and dynamic connectivity and the mining of big data sets that are illuminating sex differences in brain network activity. Dr. Reagan Wetherhill will discuss sex differences in the engagement of attention-related networks by reward vs. punishing stimuli and how this may play a role in differences in the characteristics of smoking behavior. Dr. Vincent Calhoun will discuss the concepts of dynamic connectivity and dynamism and how sex differences in these characteristics link to differences in neurocognitive function. Emeran Mayer will discuss sex differences in network connectivity underlying different behavioral strategies related to resilience and responses to pain. The Chair has done preclinical research on sex differences in network activity in response to opioids, stress hormones and stressors using rodents and will lead a discussion that integrates these talks.

🗣️ Speaker



Rita Valentino

NIDA/NIH

3 Subsessions

● Sex Bias Signaling and Activity of the Coerulear-cortical Network

🕒 10:30 AM - 11:05 AM, May 5

● Sex differences in intrinsic brain dynamism and their neurocognitive correlates

🕒 11:05 AM - 11:40 AM, May 5

📍 Sierra Ballroom 1-2

● Sex differences in stress and pain-related brain networks

🕒 11:40 AM - 12:15 PM, May 5

📍 Sierra Ballroom 1-2

12:30 PM

OSSD Council Meeting

🕒 12:30 PM - 3:00 PM, May 5

📍 Venice/ Peninsula

OSSD