



ORGANIZATION FOR THE
STUDY OF SEX DIFFERENCES

Founded by the Society for Women's Health Research

2015 Meeting of the Organization for the Study of Sex Differences Detailed Program

Tuesday, April 21

7:30-9:00 **Breakfast – Berg A**

9:00-12:00 **WORKSHOP: "How to study sex differences" - Berg B+C**

Chair: **Virginia Miller**, Mayo Clinic

Art Arnold, University of California, Los Angeles

Kathryn Sandberg, Georgetown University

Jill B. Becker, University of Michigan

Margaret McCarthy, University of Maryland

Gillian Einstein, University of Toronto

Cara Tannenbaum, University of Montréal

Londa Schiebinger, Stanford University

12:00-13:30 **Lunch – Berg A**

Stakeholder Forum hosted by CIHR with participation from NIH-ORWH: *Introducing Sex as a Variable in Preclinical Research: Metrics and Evaluation*. Participants: Cara Tannenbaum, Janine Clayton (**RSVP required**) – **Berg B**

13:30-15:45 **Welcome and Introduction:** Louise McCullough and Christine Disteche - **Berg B+C**

PRESIDENTIAL SYMPOSIUM

Chair: **Louise McCullough**, University of Connecticut

"Policy, Advocacy and Innovation; the Future of Sex Differences Research"

Martha Nolan, Society for Women's Health Research - *The View from Washington: Importance of Advocacy to Biomedical Research*

Londa Schiebinger, Stanford - *Gendered Innovations: How sex and gender interact*

Janine Clayton, Office of Research on Women's Health, NIH - *Sex as IS a Biological Variable*

Panel Discussion and Questions/Answers

15:45-16:00 **Late-breaking Talk - Berg B+C**

16:00-16:15 **Break**– Berg A


16:15-17:15 **KEYNOTE ADDRESS - Berg B+C**

David Page, MIT "*Sex and disease: Do males and females read their genomes differently?*"

17:30-20:00 **POSTER SESSION I - Berg Lobby / Reception – Berg A**

Wednesday, April 22

7:00-8:00 **Breakfast** – Berg A

8:00-9:00  **SPECIAL SESSION** sponsored by the Stanford Cardiovascular Institute - **Berg B+C**

Jennifer Tremmel Stanford - *Angina in the Absence of Obstructive Coronary Artery Disease: Is There Truly a Sex Difference?*

9:00-9:30 **Break** – Berg A

9:30-11:15 **SESSIONS I AND II**

SESSION I: "Sex and Vaccines"- Berg B

Co-Chairs: Mark Davis, Sabra Klein

9:30 **Sabra Klein** Johns Hopkins - *Sex differences and the effects of sex hormones on vaccine efficacy*

10:00 **Andrew Pekosz** Johns Hopkins - *Primary cell cultures as models to identify sex-specific effects on virus replication and host innate immune responses*

10:30 **Renata Engler** University of the Health Sciences - *Sex considerations in vaccine safety and efficacy*

11:00 **David Furman** Stanford - *Testosterone influences humoral immune responses to the influenza vaccine in males*

SESSION II: "Sex differences in brain networks"- Berg C

Chair: Ivanka Savic-Berglund

9:30 **Nirao Shah**, UCSF - *Modular genetic and neural control of sexually dimorphic behaviors*

10:00 **Sarah Burke**, VU University - *Sex-typical and sex-atypical white matter microstructure in*

gender dysphoric children and adolescents – a Diffusion Tensor Imaging study

10:30 **Jamie Feusner**, UCLA- *Sex differences in functional brain connectivity and relationships to obsessive-compulsive disorder symptoms*

11:00  **Elizabeth Young Award: Kristen Pleil**, University of North Carolina - *Sex-specific effects of chronic voluntary alcohol consumption on limbic neuronal function*

11:15-11:30 **Break – Berg A**

11:30-13:15 **SESSIONS III AND IV**

SESSION III: "Sex effects in early adversity"- Berg B

Co-Chairs: Julia Zehr, Tracy Bale

11:30 **David Lyons**, Stanford - *Sex differences in the neurobiology of stress inoculation*

12:00 **Tanja Jovanovic**, Emory - *Genotype and childhood trauma effects on development of sex differences in biomarkers of fear and anxiety*

12:30 **C. Neill Epperson**, University of Pennsylvania - *The role of adverse childhood experiences and lifelong social supports on cognitive aging and risk for depression at menopause*

13:00  **Elizabeth Young Award: Jessica Bolton**, Duke University - *Western Diets during Gestation and Lactation: A Novel Model for Postpartum Depression and Sex-Specific Developmental Programming?*

SESSION IV: "Sex effects in cardiovascular diseases" - Berg C

Chair: Jill Barnes

11:30 **Mansoureh Eghbali**, UCLA - *Estrogen rescues advanced heart failure in mice*

12:00 **Leslie Leinwand**, University of Colorado, Boulder - *A woman is not a small man*

12:30 **Fadi Charchar**, Federation University - *Y chromosome: Function and involvement in coronary artery disease*

13:00 **Soban Umar**, UCLA - *Genistein, a phytoestrogen for the treatment of pulmonary arterial hypertension and right ventricular failure*

13:15-14:15 **Lunch – Berg A**

Mentor/Mentee Lunch – Berg B

14:15-16:00 **SESSIONS V AND VI**

SESSION V: "Sleep and Sex"- Berg B

Chair: David Ehrmann


14:15 **Kristen Knutson**, University of Chicago - *The impact of sleep disturbances on metabolism in*

women and in men

- 14:45** **Jessica A. Mong**, University of Maryland - *Sex differences and the role of estrogen in sleep: what rodents can tell us about mechanism*
- 15:15** **Fiona C. Baker**, University of the Witwatersrand - *Menstrual cycle and menopause: Hormonal modulation of sleep*
- 15:45** **David Garbe**, University of Pennsylvania - *Sex differences in Drosophila sleep patterns*

SESSION VI: "Sex determination, intersex and transsexualism"- Berg C

Co-Chairs: Peter Koopman, Fadi Charchar

- 14:15** **Blanche Capel**, Duke University - *The battle of the sexes: Molecular pathways of male and female development*
- 14:45** **Vincent Harley**, Monash University - *A link between gender identity and genes involved in sex hormone signalling*
- 15:15** **Peter Koopman**, University of Queensland - *DSD advocacy: What can science bring to the debate?*
- 15:45**  **Elizabeth Young Award: Sahin Naqvi**, Whitehead Institute, MIT - *Survival on mammalian sex chromosomes is associated with a unique combination of transcription factor binding and microRNA-mediated repression*

16:30-18:30 **Organized walks: meet at Berg Lobby**

18:30 **Free time**

Thursday, April 23

7:30-8:30 **Breakfast - Berg A**

8:30-10:15 **SESSIONS VII AND VIII**

SESSION VII: "Epigenetic dynamics of sexual dimorphisms"- Berg B

Co-Chairs: Claudine Junien, Carolyn Brown

- 8:30** **Claudine Junien**, National Institute For Agricultural Research - *Sex-specific epigenetics in transgenerational responses to environmental impacts : facts, gaps and new approaches for prevention and treatment of diseases*
- 9:00** **David J. Waxman**, Boston University - *Mechanisms of growth hormone-regulated, sex-dependent liver gene expression revealed by genome-wide analysis of mouse liver chromatin states*
- 9:30** **Carolyn Brown**, University of British Columbia - *Sex differences in X-linked gene expression: Human genes that escape from X-chromosome inactivation*

10:00 **Xinxian Deng**, University of Washington - *Dosage-sensitive transcriptional regulation by histone demethylases encoded by mouse genes that escape X inactivation*

SESSION VIII: "Sex differences in sensory perception and cognition"- Berg C

Chair: Katherine Sandberg

8:30 **Claire Murphy**, San Diego State University/UCSD - *Sex differences in taste responses*

9:00 **Dolores Malaspina**, New York University - *Olfaction and cognition in schizophrenia cases and healthy controls: sex matters*

9:30 **Allan Reiss**, Stanford - *Sex chromosomes, brain development and cognition*

10:00 **Dena Dubal**, UCSF - *The X Chromosome Confers Advantage in Alzheimer's Disease*

10:15-10:30 **Break – Berg A**

10:30-12:15 **SESSIONS IX AND X**

SESSION IX: "Sex differences in neurocognitive aging"- Berg B

Chair: Agnès Lacreuse

10:30 **Naftali Raz**, Wayne State University - *Aging of Human Brain and Cognition: Measurable Sex differences?*

11:00 **Agnès Lacreuse**, University of Massachusetts - *Sex differences in cognitive aging : a pressing need for nonhuman primate data*

11:30 **Liisa Galea**, University of British Columbia - *Sex and age differences in the regulation of neuroplasticity and cognition by sex hormones*

12:00 **Joshua Talboom**, Arizona State University - *Sex differences in the influence of cognitive training in aged rodents*

SESSION X: "Sex and stress"- Berg C

Co-Chairs: Gretchen Neigh, Nafissa Ismail

10:30 **Gretchen Neigh**, Emory University - *Sex differences in susceptibility and resiliency: it all depends on where you look*

11:00 **Brian Trainor**, UC, Davis- *Sex differences in effects of stress on the aversive properties of kappa opioid receptor*

11:00 **Nafissa Ismail**, University of Ottawa - *The sexed and stressed pubertal brain*


12:00 **Katie Morrison**, University of Pennsylvania - *Dynamic sex differences during PFC maturation and their disruption by stress*

12:15-13:30 **Lunch – Berg A**

13:30-15:15 SESSIONS XI AND XII

SESSION XI: "Sex, Obesity, and Diabetes"- Berg B

Chair: Art Arnold

- 13:30** Karen Reue, UCLA - *Sex chromosomes and obesity*
- 14:00** Susan Fried, Boston University - *Female and male adipocytes are different: mechanisms and implications for metabolic health*
- 14:30** Franck Mauvais-Jarvis, Tulane University - *Sex differences and sex hormones in glucose homeostasis and diabetes*
- 15:00**  **Elizabeth Young Award: Sanne Peters**, University of Utrecht - *Greater excess risk of all-cause mortality and vascular events in women than in men with type 1 diabetes: a systematic review with meta-analysis*

SESSION XII: "The X chromosome in neurodevelopmental disorders"- Berg C

Chair: William Davies

- 13:30** Rebecca Knickmeyer, University of North Carolina - *The impact of X-chromosome loss on brain structure and function in infancy*
- 14:00** William Davies, Cardiff University - *Steroid sulfatase: an X chromosome-encoded modulator of attention and impulsivity phenotypes*
- 14:30** Armin Raznahan, National Institute of Mental Health - *The neuroanatomy of X-monosomy and autism spectrum disorders*
- 15:00** Donna Werling, UCSF - *Sex-differential gene expression patterns in the human brain and genetic risk for autism*

15:15-15:30 Break – Berg A

15:30-16:30 CAPSTONE ADDRESS - Berg B+C

 Sponsored by the Stanford Cardiovascular Institute

Vera Regitz-Zagrosek, "Sex and sex hormones in physiological and pathological cardiovascular stress – implications to management of human disease"

16:30-18:30 POSTER SESSION II – Berg Lobby

18:30-19:30 General OSSD membership meeting – LKSC Room 120

19:30-22:00 Banquet / Awards - Berg B+C