### Program Overview:

**Sunday, May 5**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00AM – 5:00PM</td>
<td>Registration. Metropolitan Foyer.</td>
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</table>
| 9:00AM – noon | Canadian Institute of Health Research Catalyst Awardee workshop  
**Chair:** Cara Tannenbaum, CIHR. Metropolitan 2-3. |
|              | Optional Education Events: Advancing Science for the Health of Women: The NIH Office of Research on Women’s Health  
**Chairs:** Chyrne Hunter and Samia Noursi, ORWH.  
10am-12pm. Metropolitan 4-5. |
| 12:00PM – 1:00PM | Lunch on own OR  
**Trainee lunch** sponsored by the Libin Cardiovascular Institute of Alberta Women's Cardiovascular Health Research Initiative |
| 1:00PM – 2:45PM | Session 1: Cardiometabolic health across the lifespan in transgender individuals  
**Chairs:** Kerrie Moreau, Natalie Nokoff. Metropolitan 2-3. |
|              | Session 2: Sex differences in the impact of stress on cognitive functions across the lifespan  
**Chair:** Seema Bhatnagar. Metropolitan 4-5. |
| 2:45PM – 3:00PM | COFFEE BREAK. Metropolitan Foyer.                                                                |
| 3:00PM – 3:15PM | Welcome Remarks (Sandberg, Kautzky-Willer, Klein) Metropolitan 2-5.                             |
| 3:15PM – 5:00PM | Session 3: Elizabeth Young New Investigators Symposium  
**Chair:** DeLisa Fairweather. Metropolitan 2-5. |
| 5:00PM – 6:00PM | Art Arnold Distinguished Lecture (Eric Vilain). Metropolitan 2-5.                                |
| 6:00PM – 8:00PM | Opening Reception (West End) and Poster Session I. (Dupont Ballroom)                           |

**Monday, May 6**

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<td>9:00AM – 5:00PM</td>
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<tr>
<td>7:30AM – 9:00AM</td>
<td>Breakfast. Metropolitan Foyer. BSD board meeting. District.</td>
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<tr>
<td>9:00AM – 10:45AM</td>
<td>Session 4: Sex differences in nicotine and smoking: From brain and behavior to smoking cessation</td>
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</table>
|              | Session 5: Sex differences in immune function and disease  
**Chairs:** Jayne Danska, |
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<tr>
<td>10:45AM – 11:00AM</td>
<td><strong>COFFEE BREAK. Metropolitan Foyer.</strong></td>
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</table>
| 11:00AM – 12:45PM | **Session 6: Role of the placenta in programming sex differences in disease risk through the lifespan**  
**Chairs: Tracey Bale, Kathleen Morrison. Metropolitan 2-3.**  
**Session 7: The role of sex steroids in metabolic health and disease**  
**Chair: Annie Newell-Fugate. Metropolitan 4-5.** |                   |
| 12:45PM – 3:00PM | Optional Education event (12:45-2pm):  
**Sex and Gender Science: What is it and what’s next?**  
**Chairs: Gillian Einstein and Cara Tannenbaum**  
**NOTE: need RSVP and lunch (for people not attending, lunch on own). Metropolitan 2-3.** |                   |
| 3:00PM – 3:15PM | **COFFEE BREAK. Metropolitan Foyer.**                                                      |                   |
| 3:15PM – 5:00PM | **Session 8: Sex differences in prescription, efficacy and adverse drug reactions of commonly prescribed drugs**  
**Chair: Hester den Ruijter. Metropolitan 2-5.** |                   |
| 5:00PM – 6:00PM | **IGM Keynote Lecture** (Alexandra Kautzky-Willer). Metropolitan 2-5.                 |                   |
| 6:00PM – 8:00PM | Poster Session II (Dupont Ballroom) and snacks and cash bar (West End)                  |                   |
| 8:00PM          | Trainee Social Event (Marrocco). Site TBD                                                 |                   |
| **Tuesday, May 7** |                                                                                         |                   |
| 9:00AM – 5:00PM | **Registration. Metropolitan Foyer.**                                                     |                   |
| 7:30AM – 9:00AM | Breakfast. Metropolitan Foyer.                                                            |                   |
| 8:30AM – 9:00AM | **OSSD Business Meeting. Metropolitan 2-3.**                                              |                   |
| 9:00AM – 10:45AM | **Session 9: Sex differences in the cardiovascular consequences of type 2 diabetes**  
**Chair: Judith Regensteiner. Metropolitan 2-3.**  
**Session 10: Sex-specific behavioral strategies during learning, fear, and ambiguity**  
**Chair: Natalie Tronson. Metropolitan 4-5.** |                   |
| 10:45AM – 11:00AM | **COFFEE BREAK. Metropolitan Foyer.**                                                     |                   |
| 11:00AM – 12:45PM | **Session 11: Sex-specific regulation of energy metabolism across the lifespan**  
**Chair: Karyn Frick. Metropolitan 4-5.** |                   |
<p>|                   | <strong>Session 12: Current topics in sex differences research I</strong>                            |                   |</p>
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| 12:45PM – 3:00PM | Optional Education events:  
  **Trainee mentor lunch** (12:45-1:45pm)  
  *Chair: Jordan Marrocco.*  
  Metropolitan 2-3.  
  NOTE: need RSVP and lunch (for people not attending, lunch on own)  
  **Ally skills: how to stand up and step in** (2:00-3:00pm)  
  *Chair: Sherry Marts.*  
  Metropolitan 4-5. |
| 3:00PM – 3:15PM  | **COFFEE BREAK.** Metropolitan Foyer.                                  |
| 3:15PM – 5:00PM  | **Session 13: Sex influence-omics: A Big-Data approach**  
  *Chairs: Jordan Marrocco and Deena Walker.*  
  Metropolitan 2-5. |
| 5:00PM – 6:00PM  | **OSSD Capstone Lecture** (Joan Roughgarden).  
  Metropolitan 2-5. |
| 6:00PM – 8:00PM  | Wine Tasting and Awards Reception.  
  West End. |

**Wednesday, May 8**

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<tr>
<td>7:30AM – 8:30AM</td>
<td>Breakfast. Metropolitan Foyer.</td>
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| 8:30AM – 10:15AM | **Session 14: Sex differences in molecular phenotypes in cancer**  
  *Chair: Art Arnold.*  
  Metropolitan 2-3.  
  **Session 15: Current topics in sex differences research II**  
  *Chair: Karyn Frick.*  
  Metropolitan 4-5. |
| 10:15AM – 10:30AM| **COFFEE BREAK.** Metropolitan Foyer.                                  |
| 10:30AM – 12:15PM| **Session 16: Impact of sex on opioid action: Implications for pain management and opioid use disorder**  
  *Chair: Anne Murphy.*  
  Metropolitan 2-3.  
  **Session 17: Impact of sex on metabolic contributions to dementia**  
  *Chair: Kristen Zuloaga.*  
  Metropolitan 4-5. |
| 12:30PM – 2:30PM | **OSSD Council Meeting.** Metropolitan 2-3.                             |

**Detailed program:**

**Sunday, May 5**

9:00AM-5:00PM, Registration, Metropolitan Foyer

9:00AM-12:00PM, Parallel sessions

  **Metropolitan 2-3**  
  **Canadian Institute of Health Research Catalyst Awardee workshop**  
  *Chair: Cara Tannenbaum, CIHR and University of Montreal*
Metropolitan 4-5
Optional Education Event:
10:00AM-12:00PM: Advancing Science for the Health of Women: The NIH Office of Research on Women’s Health (ORWH)
Chairs: Chyren Hunter, PhD, and Samia Noursi, PhD, NIH Office of Research on Women’s Health

10:00-10:15 Chyren Hunter, PhD, Associate Director for Basic and Translational Research, ORWH and Samia Noursi, PhD, Associate Director for Science Policy, Planning and Analysis, ORWH
Welcome and introductions: Overview of the symposium and learning objectives

10:15-10:30 Elizabeth Spencer, RN, Deputy Director, ORWH
Overview of the NIH Office of Research on Women’s Health (ORWH)

10:30-10:45 Janine Clayton, MD, Associate Director for Women’s Health, NIH, Director, ORWH
Highlights and recent spotlights from ORWH

10:45-11:00 Chyren Hunter, PhD, Associate Director for Basic and Translational Research, ORWH
Let’s talk about sex as a biological variable: Policies and programs

11:00-11:15 Samia Noursi, PhD, Associate Director for Science Policy, Planning and Analysis, ORWH
Inclusion policy and science policy, planning and analysis at ORWH

11:15-11:30 Margaret Bevans, PhD, RN, FAAN, Associate Director for Clinical Research, ORWH
Understanding the influence of sex and gender in clinical research

11:30-11:45 Victoria Cargill, MD, MSCE, Associate Director for Interdisciplinary Research, ORWH
Research on marginalized and vulnerable women: Understudied, underrepresented, and underreported (U3) populations and interdisciplinary research

11:45-12:00 Elizabeth Spencer, RN, Deputy Director, ORWH
Discussion

12:00PM – 1:00PM, Lunch on own

1:00PM – 2:45PM, Parallel sessions
Metropolitan 2-3
Session 1: Cardiometabolic health across the lifespan in transgender individuals
Chairs: Kerrie Moreau, PhD, University of Colorado, Natalie Nokoff, MD, Children’s Hospital Colorado

1:05-1:15 Kerrie Moreau, PhD, University of Colorado Anschutz Medical Campus and Denver Veterans Affairs Medical Campus
Introduction to Symposium: Cardiometabolic health across the lifespan in transgender individuals

1:15-1:45 Natalie Nokoff, MD, University of Colorado Anschutz Medical Campus
Treatment of Transgender Youth and Impact on Cardiometabolic Health
1:45-2:15 Carl G. Streed Jr, MD, MPH, Boston University School of Medicine, Boston Medical Center, Center for Transgender Medicine and Surgery
Reproductive health in transgender individuals
2:15-2:45 Deborah Clegg, PhD, American University and Cedars-Sinai Medical Center
Sex and GENDER'S Impact on Cardiometabolic Risk

**Metropolitan 4-5**

**Session 2: Sex differences in the impact of stress on cognitive functions across the lifespan**
*Chair: Seema Bhatnagar, Children's Hospital of Philadelphia, University of Pennsylvania School of Medicine*

1:05-1:30 Kimberly Urban, PhD, Children's Hospital of Philadelphia
Social stress produces age- and sex-dependent changes in prefrontal cortical neuronal activity and morphology

1:30-1:55 Marieke Gilmartin, PhD, Marquette University
Predicting threat: sex differences in the neurobiology of temporal fear learning

1:55-2:20 Seema Bhatnagar, Children's Hospital of Philadelphia
Peptidergic influences on sex differences in cognitive functions

2:20-2:45 Ruben Gur, PhD, University of Pennsylvania School of Medicine
Sex differences in brain development affecting cognition and psychopathology: Results from the Philadelphia Neurodevelopment Cohort

2:45PM – 3:00PM, **BREAK, Metropolitan Foyer**

3:00PM – 3:15PM, **Welcome Remarks** (Kathryn Sandberg, Alexandra Kautzky-Willer, Sabra Klein), Metropolitan 2-5

3:15PM-5:00PM, **Session 3: Elizabeth Young New Investigators Symposium, Metropolitan 2-5**
*Chair: DeLisa Fairweather, PhD, and Katelyn Bruno, PhD, Mayo Clinic Jacksonville*

3:20-3:40 Brittany Osborne, PhD Student, University of Delaware
Sex differences in microglia-neural signaling and learning following early-life immune activation in the juvenile rat

3:40-4:00 Aarti Mishra, PhD Student, University of Southern California
Sex differences in metabolic aging of the brain in humanized APOE-4 knock-in rats: Implications for Alzheimer’s disease

4:00-4:20 Nithyananda Thorenoor, PhD, Postdoctoral Fellow, Pennsylvania State University College of Medicine
Differential impact of co-expressed SP-A1/SP-A2 protein on AM miRNome

4:20-4:40 Ryan Arathimos, PhD, Postdoctoral Fellow, University of Bristol
Impact of sex hormone-binding globulin (SHBG) on the human phenome: A scan of over 21,000 traits in ~300,000 participants of UK Biobank

4:40-5:00 Anna Levinsson*, PhD, Postdoctoral Fellow, Montreal Heart Institute & Université de Montréal
Pharmacogenomics call for sex-sensitive drug safety and effectiveness policy reform
*Dr. Levinsson is a 2019 NIH ORWH and OSSD Science Policy Scholar Travel Award winner
5:00PM – 6:00PM, Art Arnold Distinguished Lecture, Metropolitan 2-5
Eric Vilain, MD, PhD, Children’s National Medical Center
Hurdling over sex: Sport, science, and equity

6:00PM-8:00PM, Opening Reception (West End) and Poster Session I (Dupont Ballroom)

Monday, May 6

9:00AM to 5:00PM, Registration, Metropolitan Foyer

7:30AM-9:00AM, Breakfast, Metropolitan Foyer

9:00AM – 10:45AM, Parallel sessions

Metropolitan 2-3
Session 4: Sex differences in nicotine and smoking: From brain and behavior to smoking cessation
Chairs: Cora Lee Wetherington, PhD, National Institute on Drug Abuse, Sherry McKee, PhD, Yale School of Medicine

9:05-9:30 Kenneth A. Perkins, PhD, University of Pittsburgh School of Medicine
Sex differences in nicotine versus non-nicotine factors affecting acute smoking reinforcement and reward

9:30-9:55 Teresa R. Franklin, PhD, University of Pennsylvania Perelman School of Medicine
Influence of sex and hormones on brain and behavioral response to smoking cues, a major relapse predictor

9:55-10:20 Kelly Cosgrove, PhD, Yale School of Medicine
Imaging sex differences in the mesocortical and mesolimbic dopamine pathways of tobacco smokers

10:20-10:45 Sherry McKee, PhD, Yale School of Medicine
Considering sex differences in treatment development for smoking

Metropolitan 4-5
Session 5: Sex differences in immune function and disease
Chairs: Jayne Danska, PhD, Hospital for Sick Children, Paul Kubes, PhD, University of Calgary

9:05-9:30 Paul Kubes, PhD, University of Calgary
Sex differences in control of bacterial infections

9:30-9:55 Manu Rangachari, PhD, Quebec City University Hospital Research Centre
Male sex and Th17 T cells exacerbate disease in a mouse model of progressive multiple sclerosis

9:55-10:20 Connie Krawczyk, PhD, McGill University
Specific X chromosome proteins and inflammation

10:20-10:45 Sabra Klein, PhD, Johns Hopkins Bloomberg School of Public Health
Sex differences in vaccine-induced immunity against influenza
10:45AM – 11:00AM, BREAK, Metropolitan Foyer

11:00AM – 12:45PM, Parallel sessions

Metropolitan 2-3
Session 6: Role of the placenta in programming sex differences in disease risk through the lifespan

Chairs: Tracy Bale, PhD, University of Maryland School of Medicine, Kathleen Morrison, PhD, University of Maryland School of Medicine

11:05-11:30 Tracy Bale, PhD, University of Maryland School of Medicine
Programming prenatal female resilience: placental epigenetic mechanisms of the X

11:30-11:55 Kent Thornburg, PhD, Oregon Health & Science University School of Medicine
Sex differences in disease risk begin in the womb

11:55-12:20 Wendy Robinson, PhD, University of British Columbia and BC Children’s Hospital Research
X-chromosome inactivation, mosaicism and the placenta

12:20-12:45 Thomas Jansson, MD, PhD, University of Colorado School of Medicine
Fetal programming in maternal obesity: Sex differences and the role of placental adiponectin signaling

Metropolitan 4-5
Session 7: The role of sex steroids in metabolic health and disease

Chair: Annie Newell-Fugate, DVM, MSc, PhD, Texas A&M University

11:05-11:30 Annie Newell-Fugate, DVM, MSc, PhD, Texas A&M University
Sexually dimorphic effects of local androgens on white adipose tissue lipid metabolism

11:30-11:55 Jennifer Shuwen Lee, MD, PhD, Stanford University
Endogenous circulating sex hormones and CVD risk in older men and women with Type 2 diabetes

11:55-12:20 Farida Sohrabji, PhD, Texas A&M University
Sex and age differences in cerebrovascular disease

12:20-12:45 Franck Mauvais-Jarvis, MD, PhD, Tulane University
The role of androgens and estrogens in beta pancreatic cell function

12:45PM-2:00PM, Optional Education event, Metropolitan 2-3

Sex and Gender Science: What is it and what’s next?

Chairs: Gillian Einstein, PhD, University of Toronto, and Cara Tannenbaum, PhD, CIHR and University of Montreal

NOTE: need RSVP and lunch (for people not attending, lunch on own)

12:45-1:00 Gillian Einstein, University of Toronto
Welcome and introductory remarks

1:00-1:15 Cara Tannenbaum, PhD, Institute of Gender and Health, CIHR
Mandate of the IGH to expand the field of Sex and Gender Science

1:15-1:30 Geert de Vries, PhD, Georgia State University
What sex and gender science will contribute

1:30-1:45 Ian D Graham, PhD, University of Ottawa
Sex and gender science: A view from the lens of implementation science
1:45-2:00 Paul Kubes, PhD, University of Calgary
Perspectives from a non-sex and gender scientist

2:00PM-3:00PM, Optional Education event, Metropolitan 2-3
Society for Women’s Health Research media training, Chairs: Amy Miller, Society for Women’s Health Research, Emily Ortman, Society for Women’s Health Research

2:00PM-3:00PM, Invitation Only event, Metropolitan 4-5
SCORE CEC meeting, Chair: Art Arnold

3:00PM – 3:15PM, BREAK, Metropolitan Foyer

3:15PM-5:00PM, Session 8: Sex differences in prescription, efficacy and adverse drug reactions of commonly prescribed drugs, Metropolitan 2-5
Chairs: Hester den Ruijter, PhD, Laboratory of Experimental Cardiology UMC Utrecht, Paula Rochon, MD MPH, Women’s College Research Institute, Women’s College Hospital; Department of Medicine and Institute of Health Policy, Management & Evaluation; Univ. of Toronto
3:20-3:45 Sarah Watson, MSc, Pharm, Uppsala Monitoring Centre
Global reporting of adverse drug reactions in men and women
3:45-4:10 Sophie Bots, MSc, UMC Utrecht
Sex-specific ADR reporting in clinical trials for heart failure
4:10-4:35 Vera Regitz-Zagrosek, MD, PhD, Charite
Sex and gender in the development and use of cardiovascular drugs
4:35-5:00 Virginia Miller, PhD, Mayo Clinic
Sex hormones and adverse drug reactions

5:00PM – 6:00PM, IGM Keynote Lecture, Metropolitan 2-5
Alexandra Kautzky-Willer, MD, Medical University of Vienna
Sex and gender matter in diabesity: From pathophysiology to prevention and personalized therapy

6:00PM-8:00PM, Poster Session II (Dupont Ballroom); snacks and cash bar (West End)

8:00PM, Trainee Social Event
Chair: Jordan Marrocco, Georgetown Room

Tuesday, May 7

9:00AM to 5:00PM, Registration, Metropolitan Foyer

7:30AM-9:00AM, Breakfast, Metropolitan Foyer

8:30AM-9:00AM, OSSD Business Meeting, Metropolitan 2-3
9:00AM – 10:45AM, Parallel sessions

Metropolitan 2-3
Session 9: Sex differences in the cardiovascular consequences of type 2 diabetes
Chair: Judith Regensteiner, PhD, University of Colorado School of Medicine
9:05-9:30 Rita Kalyani, MD, Johns Hopkins University
Sex differences in racial and ethnic factors in cardiovascular disease associated with T2D
9:30-9:55 Kristen Nadeau, MD, University of Colorado School of Medicine
Cardiovascular exercise capacity in youth and adults with type 2 diabetes
9:55-10:20 C. Noel Bairey Merz, MD, Cedars-Sinai Medical Center
Sex differences in heart disease in T2D
10:20-10:45 Kerrie Moreau, PhD, University of Colorado School of Medicine
Sex hormones and cardiometabolic health in type 2 diabetes

Metropolitan 4-5
Session 10: Sex-specific behavioral strategies during learning, fear, and ambiguity
Chair: Natalie Tronson, PhD, University of Michigan
9:05-9:30 Natalie Tronson, PhD, University of Michigan
Beyond "better" or "worse": sex differences in strategies engaged during fear conditioning
9:30-9:55 Liisa Galea, PhD, University of British Columbia
Sex and hormone differences in strategy use following spatial learning
9:55-10:20 Caitlin Orsini, PhD, University of Florida
Hormonal regulation of risky decision making in male and female rats
10:20-10:45 Jeonsok Kim, PhD, University of Washington
Ethobehavioral studies of sexually dimorphic risky decision-making in rats

10:45AM – 11:00AM, BREAK, Metropolitan Foyer

11:00AM – 12:45PM, Parallel sessions

Metropolitan 2-3
Session 11: Sex-specific regulation of energy metabolism by lifestyle and environmental factors across the lifespan
Chair: Rita Strakovsky, PhD, RD, Michigan State University, Almudena Veiga-Lopez, DVM, PhD, Michigan State University
11:05-11:30 Almudena Veiga-Lopez, DVM, PhD, Michigan State University
Sex-specific effect of gestational bisphenols on fetal skeletal muscle and adipose tissue differentiation
11:30-11:55 Vasantha Padmanabhan, PhD, University of Michigan
Sexually dimorphic impact of prenatal chemical exposures on newborn metabolic outcomes
11:55-12:20 Diana C. Pacyga, PhD, Michigan State University
Associations of maternal obesity and adiposity with gestational steroid hormone levels: impact of fetal sex
12:20-12:45 Kanakadurga Singer, MD, University of Michigan
Sex differences in hematopoietic responses to dietary obesity
Session 12: Current topics in sex differences I  
Chair: Karyn Frick, PhD, University of Wisconsin-Milwaukee  
11:05-11:25 Nathan Schilaty, DC, PhD, Mayo Clinic  
Sex differences in anterior cruciate ligament injury  
11:25-11:45 Jean Hoffman-Censits, MD, Johns Hopkins University  
Sex as a factor influencing outcome of bladder cancer: understanding sex based differences and goals for improving outcomes  
11:45-12:05 Katelyn Bruno, PhD, Mayo Clinic, Florida  
Sex differences in chronic pain conditions: hypermobile Ehlers Danlos syndrome and fibromyalgia  
12:05-12:25 Holly Hunsberger, PhD, Columbia University  
Anxiety impacts cognitive decline in a sex-specific manner in Alzheimer’s disease mice  
12:25-12:45 Christine Wagner, PhD, University at Albany  
Sex differences in progesterone receptor expression in developing brain: from RNA sequencing to aggressive behavior  

12:45PM-3:00PM, Optional Education events:  
Trainee mentor lunch (12:45-1:45pm), Metropolitan 2-3  
Chair: Jordan Marrocco  
NOTE: need RSVP and lunch (for people not attending, lunch on own)  
Ally skills: how to stand up and step in (2:00-3:00pm), Metropolitan 4-5  
Chair: Sherry Marts  

3:00PM-3:15PM, BREAK, Metropolitan Foyer  

3:15PM-5:00PM, Session 13: Sex influence-omics: a big-data approach, Metropolitan 2-5  
Chairs: Jordan Marrocco, PhD, The Rockefeller University, and Deena Walker, PhD, Icahn School of Medicine at Mount Sinai  
3:20-3:45 Eldin Jašarević, PhD, University of Pennsylvania  
Big data do’s and don’ts in sex differences research  
3:45-4:10 Adriana Maggi, PhD, University of Milan  
A novel understanding of male and female metabolic features that stems from ‘omics investigational power  
4:10-4:35 Jordan Marrocco, PhD, The Rockefeller University  
Transcriptional profiling of the stressed hippocampus: does sex make a difference?  
4:35-5:00 Deena Walker, PhD, Icahn School of Medicine at Mount Sinai  
Adolescent stress reprograms the medial amygdala transcriptome and sex differences in reward  

5:00PM – 6:00PM, OSSD Capstone Lecture, Metropolitan 2-5  
Joan Roughgarden, PhD, Stanford University  
The gender binary in nature, across human cultures, and in the Bible  

6:00PM-8:00PM, Wine Tasting and Awards Reception, West End
Wednesday, May 8

9:00AM to 5:00PM, Registration, Metropolitan Foyer

7:30AM - 8:30AM, Breakfast, Metropolitan Foyer

8:30AM – 10:15AM, Parallel sessions

Metropolitan 2-3

Session 14: Sex differences in molecular phenotypes in cancer
Chair: Art Arnold, PhD, UCLA

8:35-9:00 Camila Lopes-Ramos, PhD, Dana-Farber Cancer Institute, Harvard University
Gene regulatory network analysis identifies sex-linked differences in colon cancer drug metabolism processes

9:00-9:25 Paul Boutros, PhD, UCLA Department of Human Genetics
Sex-differences in cancer driver genes and biomarkers

9:25-9:50 Joshua Rubin, MD, PhD, Washington University School of Medicine
Multiple contributors to sex differences in pediatric neural cancers

9:50-10:15 Kristin Swanson, PhD, Mayo Clinic Phoenix
Connecting sex differences in imaging of glioma with tumor biology

Metropolitan 4-5

Session 15: Current topics in sex differences II
Chair: Karyn Frick, PhD, University of Wisconsin-Milwaukee

8:35-8:55 Deepak P. Srivastava, PhD, King's College London
Estradiol regulates the synaptic proteome through a local translation mechanism in a sexually dimorphic manner

8:55-9:15 Marija Kundakovic, PhD, Fordham University
Sex-specific chromatin organization and anxiety-related phenotypes

9:15-9:35 Vesna Garovic, MD, PhD, Mayo Clinic
Sex-specific risk factors and renal disease

9:35-9:55 Karin Schenck-Gustafsson, MD, Karolinska Institutet
Palpitations in women

9:55-10:15 Meghan Rebuli, PhD, University of North Carolina at Chapel Hill
Inflammatory response to wood smoke and live attenuated influenza virus is sex-specific in the human airway

10:15AM – 10:30AM, BREAK, Metropolitan Foyer

10:30AM – 12:15PM, Parallel sessions

Metropolitan 2-3

Session 16: Impact of sex on opioid action: Implications for pain management and opioid use disorder
**Chairs: Anne Murphy, PhD, Georgia State University, and Marjorie Jenkins, MD, FDA Office of Women's Health**

**10:35-11:00 Anne Murphy, PhD, Georgia State University**
Sex differences in neural-glial signaling underlying opioid action

**11:00-11:25 Rita Valentino, PhD, NIDA**
Sex differences in the convergence of stress and opioid systems

**11:25-11:50 Jill Becker, PhD, University of Michigan**
Sex differences and the role of selective estradiol receptor subtypes in neural mechanisms of addiction

**11:50-12:15 R. Kathryn McHugh, PhD, Harvard Medical School and McLean Hospital**
Sex differences in clinical treatment of opioid use disorder

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**Metropolitan 4-5**

**Session 17: Impact of sex on metabolic contributions to dementia**

**Chair: Kristen Zuloaga, PhD, Albany Medical College**

**10:30-10:35 Kristen Zuloaga, PhD, Albany Medical College**
Introduction: Impact of sex on metabolic contributions to dementia

**10:35-11:00 Roberta Brinton, PhD, University of Arizona**
Transitions of the aging female brain: window into underlying mechanisms of late-onset Alzheimer's disease

**11:00-11:25 Lisa Robison, PhD, Albany Medical College**
Sex-dependent effects of prediabetes in mouse models of Alzheimer's disease & mixed dementia

**11:25-11:50 Kristen O'Connell, PhD, The Jackson Laboratory**
Gene X sex interactions in a novel mouse model of Alzheimer’s disease

**11:50-12:15 Advieh Ergul, MD, PhD, Medical University of South Carolina**
Vascular cognitive impairment in diabetes: lost communication within the neurovascular unit

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12:30PM – 2:30PM, OSSD Council Meeting, Metropolitan 2-3