



# Sex Differences Across the Lifespan: A Focus on Metabolism

National Conference + Poster Presentation

October 12-14, 2022

THE BROADMOOR HOTEL  
Colorado Springs, Colorado

Learn and connect to answer the next key questions in women's health research.

Presented by   **Ludeman Family Center for Women's Health Research**  
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

## Wednesday, October 12, 2022

11:30 – 12:30PM	Community Session Check-in	WEST BALLROOM
COMMUNITY SESSION EVENT		
12:30 – 2:30PM	<b>COMMUNITY SESSION LUNCH:</b> <b>Making a Difference in Women's Health: Journeys in Science</b>  CHAIR: <b>Laura Brown, MD</b> , University of Colorado School of Medicine  SPEAKERS: <i>(15-minute presentations followed by a 15-minute Q&amp;A)</i> <b>Anne Libby, PhD</b> , University of Colorado School of Medicine <i>Mentoring and Educating the Next Generation of Scientists</i> <b>Wendy Kohrt, PhD</b> , University of Colorado School of Medicine <i>MoTrPAC – Finding out Why Exercise Is Important</i> <b>Kent Thornburg, PhD</b> , Oregon Health & Science University <i>Better the future with diet: reversing the American chronic disease epidemic</i> <b>Cara Tannenbaum, MD, MSc</b> , Canadian Institutes of Health Research <i>Planning for Impact</i>  Plated lunch	WEST BALLROOM
4:00 – 6:00PM	Conference Check-in	WEST BALLROOM FOYER
6:00 – 7:00PM	COCKTAIL RECEPTION & POSTER PREVIEW <i>Hors d'oeuvres and cocktails</i>	WEST TERRACE <i>(Rain location: West Tower Lobby)</i>

### OPENING DINNER

7:00PM – 9:00PM	<b>WELCOME TO THE 2022 NATIONAL CONFERENCE</b>  <b>John Reilly, MD</b> , Dean, University of Colorado School of Medicine; Vice Chancellor, Health Affairs for the CU Anschutz Medical Campus  <b>Judy Regensteiner, PhD</b> , University of Colorado School of Medicine  <b>KEYNOTE SPEAKER:</b> <b>Sarah Temkin, MD</b> , Associate Director for Clinical Research, NIH Office of Research on Women's Health <i><b>Sex and Gender Considerations Relevant to Health of Women: Perspectives from the NIH Office of Research on Women's Health</b></i>	WEST BALLROOM FOYER
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## Thursday, October 13, 2022

7:00AM	Breakfast opens	WEST BALLROOM FOYER
7:30AM – 9:35AM	<b>Scientific Session I</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM

### To E or not to E: Metabolic Actions of Estrogens

CHAIR:	<b>Wendy M. Kohrt, PhD</b> , University of Colorado School of Medicine
SPEAKERS:	<b>T. Rajendra Kumar, PhD</b> , University of Colorado School of Medicine <i>Estrogen-Independent Actions of FSH in Extra-Gonadal Tissues</i> <b>Edward Melanson, PhD</b> , University of Colorado School of Medicine <i>Estrogen and Energy Expenditure: Stoking the Flames of Thermogenesis</i> <b>Dawn Lowe, PhD</b> , University of Minnesota Medical School <i>Disrupted Estradiol-estrogen Receptor Signaling in Skeletal Muscle: Myosin and Beyond</i> <b>Wendy Kohrt, PhD</b> , University of Colorado School of Medicine <i>Bioenergetic and Metabolic Actions of Estrogens</i>
SPEAKER Q & A PANEL	
DATA BLITZ PRESENTERS:	<b>Natalie Nokoff, MD</b> <i>Impact of testosterone and pubertal blockade on body composition and exercise capacity</i> <b>Matthew Babcock, MS, PhD</b> <i>The effects of gonadal aging on sympathetic support of resting metabolic rate</i> <b>Rebecca Scalzo, PhD</b> <i>Metabolic effects of estrogen with nutrient excess</i>
Q & A PANEL	

9:35AM — 9:55AM	Break	
9:55AM – 12:00PM	<b>Scientific Session II</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM

### Sex Differences in Cardiovascular Disease – Implications for Women and Policy

CHAIR:	<b>Linda Peterson, MD</b> , Washington University School of Medicine
SPEAKERS:	<b>Mary Norine Walsh, MD, MACC</b> , St. Vincent Heart Center <i>Sex differences in Heart Failure and Cardiac Transplantation</i> <b>Linda Peterson, MD</b> , Washington University School of Medicine <i>Sex Differences in Cardiac Rehabilitation and Intensive Cardiac Rehabilitation</i> <b>David Kao, MD</b> , University of Colorado School of Medicine <i>If men's hearts are from Mars, are women's hearts from Venus? Sex differences in causes, prognosis, and treatment goals for heart failure</i> <b>Nanette Wenger, MD</b> , Emory University School of Medicine <i>Cardiovascular Disease in Women: Epidemiology, Awareness, Access, and Delivery of Equitable Healthcare</i>
SPEAKER Q & A PANEL	
DATA BLITZ PRESENTERS:	<b>Brisa Peña Castellanos, PhD</b> <i>Understanding Mechanical Stresses in Women and Men: in vitro Modeling of Cardiac Biomechanics in Health and Disease</i> <b>Kathleen Woulfe, PhD</b> <i>Relaxed Aging: Improving Cardiac Relaxation in Female Hearts</i> <b>Layne Dylla, MD, PhD</b> <i>Impact of Biological Sex and Patient Presentations with EMS on In-hospital Care</i>
Q & A PANEL	

12:00PM – 12:45PM	Break	
12:45PM – 1:45PM	Lunch Panel (Lunch buffet)	WEST BALLROOM FOYER

### Moving into the Future: New Strategies in Women's Health Research

CHAIR AND MODERATOR:	<b>Amy Huebschmann, MD</b> , University of Colorado School of Medicine
PANELISTS:	<b>Nanette Wenger, MD</b> , Emory University School of Medicine <b>Cara Tannenbaum, MD, MSc</b> , Canadian Institutes of Health Research <b>David Kao, MD</b> , University of Colorado School of Medicine
Q & A PANEL	

1:45PM – 2:00PM	Break	
2:00PM – 4:05PM	<b>Scientific Session III</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM

### Sex Differences in Brain, Obesity and Metabolic Dysregulation across the Lifespan

CHAIRS:	<b>Jill Goldstein, PhD</b> , Harvard Medical School <b>C. Neill Epperson, MD</b> , University of Colorado School of Medicine
SPEAKERS:	<b>Taben Hale, PhD</b> , University of Arizona College of Medicine <i>Sex Differences in the Developmental Programming of Autonomic Dysregulation</i> <b>Kristina Legget, PhD, MA</b> , University of Colorado School of Medicine <i>Sex Differences in the Neuronal Mechanisms of Food Intake Behavior</i> <b>Andrea Edlow, MD, MSc</b> , Harvard Medical School <i>Maternal Obesity and Sex Differences in Fetal Brain and Placental Programming</i> <b>Laura Holsen, PhD</b> , Harvard Medical School <i>Sex Differences in Appetitive Function in the Brain: Impact of Stress, Mood and Hormones</i>
SPEAKER Q & A PANEL	
DATA BLITZ PRESENTERS:	<b>Ann Caldwell, PhD</b> <i>Rethinking Connections Between Energy Balance and the Reproductive Axis Using Evolutionarily Informed Hypotheses</i> <b>Christina Metcalf, PhD</b> <i>Depressed, Stressed, and Inflamed: Inflammatory Markers of Midlife Women with Childhood and Current Life Stress are Linked with Depression Symptoms</i> <b>Phoutdavone “Noy” Phimphasone-Brady, PhD</b> <i>Sex differences in disordered eating behaviors, adverse childhood events, and diabetes distress</i>
Q & A PANEL	

4:05PM – 5:30PM	<b>Judged Poster Session &amp; Reception</b> <i>Hors d'oeuvres and cocktails</i>	WEST BALLROOM
5:30PM – 7:30PM	Casual Dinner	POMPEIAN

## Friday, October 14, 2022

7:00AM	Breakfast opens	WEST BALLROOM FOYER
7:30AM – 8:15AM	<b>KEYNOTE ADDRESS:</b> <i><b>Impact of Timing of Food and Physical Activity on Insulin Sensitivity on Type 2 Diabetes</b></i>  INTRODUCTION OF KEYNOTE SPEAKER: <b>Judy Regensteiner, PhD</b> , University of Colorado School of Medicine  KEYNOTE SPEAKER: <b>Juleen Zierath, PhD</b> , Karolinska Institute  Q & A SESSION	WEST BALLROOM

8:15AM – 9:50AM	<b>Scientific Session IV</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM
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### Sex-omics: A Systems Approach to the Methods of Studying Sex and Gender Differences

CHAIRS:	<b>Juleen Zierath, PhD</b> , Karolinska Institute <b>Judy Regensteiner, PhD</b> , University of Colorado School of Medicine
SPEAKERS:	<b>Leslie Leinwand, PhD</b> , University of Colorado <i>A Woman is Not a Small Man: Sex Differences in the Heart in Health and Disease</i> <b>Geert De Vries, PhD</b> , Georgia State University <i>Development and function of sex differences in the brain: A whole body perspective</i> <b>Arthur Arnold, PhD</b> , University of California, Los Angeles <i>Sexual Differentiation as the Failure of Adaptive Sex-Balancing Mechanisms</i> <b>Margaret McCarthy, PhD</b> , University of Maryland School of Medicine <i>Immune Origins of Sex Differences in the Brain</i>
Q & A PANEL	

9:50AM – 10:15AM	Break	
10:15AM – 12:20PM	<b>Scientific Session V</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM

### The Placental-Fetal Connection: Programming Adult Metabolic Health

CHAIRS:	<b>Yoel Sadovsky, MD</b> , Magee-Womens Research Institute, University of Pittsburgh <b>Laura Brown, MD</b> , University of Colorado School of Medicine
SPEAKERS:	<b>Yoel Sadovsky, MD</b> , Magee-Womens Research Institute, University of Pittsburgh <i>New Insights into Placental Function in Maternal-Fetal Defense</i> <b>Laura Brown, MD</b> , University of Colorado School of Medicine <i>Muscle Matters: Fetal Influences on Lifelong Body Composition</i> <b>Kent Thornburg, PhD</b> , Oregon Health & Science University <i>Placental Sex and Fetal Heart Development</i> <b>Theresa Powell, PhD</b> , University of Colorado School of Medicine <i>Role of the placenta in building the fetal brain</i>
SPEAKER Q&A PANEL	
DATA BLITZ PRESENTERS:	<b>Ramón Lorca, PhD</b> <i>Developing a Novel Murine Model of IUGR Using Optogenetics</i> <b>Ellen Francis, PhD</b> <i>Associations of Healthy Eating During Pregnancy: Sex as a modifier of placental function and child cardiometabolic traits</i> <b>Jane Stremming, MD</b> <i>Better Together? IGF-1 and Insulin to Support Fetal Growth</i>
Q&A PANEL	

12:00 PM	Boxed lunches available	
12:20PM – 12:45PM	Boxed lunch and break	WEST BALLROOM FOYER
12:45PM – 2:50PM	<b>Scientific Session VI</b> <i>(20-minute presentations followed by a 15-minute panel discussion)</i>	WEST BALLROOM

### Female Sex as an Endocrine Disruptor in Diabetes

CHAIRS:	<b>Jane Reusch, MD</b> , University of Colorado School of Medicine <b>Kristen Nadeau, MD</b> , University of Colorado School of Medicine
SPEAKERS:	<b>Jennifer Green, MD</b> , Duke University School of Medicine <i>Sex Differences in Recent Cardiovascular Outcomes Trials</i> <b>Rachel Huxley, PhD</b> , Deakin University School of Medicine <i>Sex Differences in Vascular Health – Biology, Behavior or Bias?</i> <b>Judy Regensteiner, PhD</b> , University of Colorado School of Medicine <i>Type 2 Diabetes and Exercise: Influences of Sex and Gender</i> <b>Kristen Nadeau, MD</b> , University of Colorado School of Medicine <i>Sex Differences in Co-morbidities of Youth-onset Type 2 Diabetes</i>
SPEAKER Q&A PANEL	
DATA BLITZ PRESENTERS:	<b>Amy Keller, PhD</b> <i>Perivascular adipose tissue remodeling impairs vasoreactivity in thermoneutral-housed rats</i> <b>Rebecca Scalzo, PhD</b> <i>Metabolic effects of estrogen with nutrient excess</i> <b>Stephanie Gilley, MD, PhD</b> <i>Joint Effects of Maternal BMI and Rapid Infant Weight Gain on Childhood Body Size and Composition</i>
Q&A PANEL	

2:50PM – 3:00PM	CLOSING REMARKS <b>Judy Regensteiner, PhD</b> , University of Colorado School of Medicine	
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