

2025 Perinatal Biology Symposium

Perinatal Programming: Challenges and Solutions for Optimizing Long-Term Health

August 16 – 19, 2025

Viewline Resort Snowmass

Snowmass, CO

Day 1 – August 16th

- 5:00–7:45 pm Registration
5:30–6:30 pm Opening reception
6:30–6:45 pm Welcome and opening remarks: Organizing Committee
6:45–7:45 pm **2025 Keynote Address:** Teresa Davis, PhD (Professor, Pediatrics, Baylor College of Medicine)
Overview: Strategies for early nutrition in premature offspring.

Day 2 – August 17th

- 6:45–8:15 am Continental Breakfast
7:00–8:00 am **Trainee Workshop 1: EFFECTIVE SCIENTIFIC WRITING**
Chair: Paul Rozance, MD (University of Colorado School of Medicine)
Panelists: Sean Limesand, PhD (University of Arizona)
Kurt Albertine, PhD (University of Utah School of Medicine)

SESSION I – EARLY INFLUENCES ON GROWTH & REPRODUCTIVE COMPETENCE

- Chairs: Rebecca Swanson, PhD (South Dakota State University)
Ryan Ashley, PhD (New Mexico State University)
8:15–8:45 am Jay Ramadoss, PhD (Professor, Obstetrics & Gynecology, Wayne State University)
Overview: Maternal lifestyle, fetal development, and offspring outcomes
8:45–9:15 am Daniel Hardy, PhD (Professor, Physiology & Pharmacology, Western University)
Overview: Influence of maternal nutrition and chemical exposure on offspring
9:15–9:45 am **Early Career Speaker:** Upasna Sharma, PhD (Assistant Professor, Developmental Biology, University of California-Santa Cruz)
Overview: Environmental modulation of epigenetic markers in germ cells and their influence on offspring
9:45–10:15 am **Early Career Speaker:** Amy Desaulniers, PhD (Assistant Professor, Veterinary Medicine, University of Nebraska-Lincoln)
Overview: Effects of intrauterine heat stress on offspring fertility in swine
10:15–10:45 am Break

SESSION II – HEALTH CONSEQUENCES OF PLACENTAL INSUFFICIENCY

- Chair: Molly McGuckin, PhD (University of Colorado School of Medicine)
Sarah Reed, PhD (University of Connecticut)
10:45–11:15 am Emilyn Alejandro, PhD (Associate Professor, Nutrition, University of Minnesota)
Overview: Maternal obesity, placental inflammation, and β cell function
11:15–11:45 am Timothy Regnault, PhD (Professor, Physiology & Pharmacology, Western University)
Overview: Epidemiology of preterm birth and later maternal cardiovascular risk
11:45–12:15 pm Helen Jones, PhD (Associate Professor, Physiology & Aging, University of Florida)
Overview: Maternal-fetal interface in pathological pregnancies
12:15–12:30 pm **Trainee Talk**–TBD
Overview: TBD
12:30–12:45 pm **Trainee Talk**–TBD
Overview: TBD
12:45–6:00 pm **Informal Networking** / Go Enjoy the Mountains!

SESSION III – MATERNAL HEALTH/DIET & PLACENTAL FUNCTION

- Chair: Caitlin Cadaret, PhD (Colorado State University)
Kurt Albertine, PhD (University of Utah School of Medicine)
- 6:00–6:30 pm Theresa Powell, PhD (Professor, Pediatrics, University of Colorado School of Medicine)
Overview: Effects of obesity/gestational diabetes on placental function
- 6:30–7:00 pm Sathish Kumar Natarajan, PhD (Associate Professor, Nutrition & Health Sciences, University of Nebraska-Lincoln)
Overview: Protection of the placenta and fetus from Zika virus
- 7:00–7:30 pm **Early Career Speaker:** Jennifer Thompson, PhD (Assistant Professor, Physiology & Pharmacology, University of Calgary)
Overview: Maternal metabolic dysfunction and disease risk in the offspring
- 7:30–8:00 pm **Trainee Flash Talks:** TBD (x5)
Overview: 5-minute research overviews, 1-2 questions each
- 8:00–9:30 pm **POSTER SESSION I**

Day 3 – August 18th

- 6:45–8:15 am Continental Breakfast
- 7:00–8:00 am **Trainee Workshop 2: UNDERSTANDING & LEVERAGING INDIVIDUAL PERSONALITIES WITHIN THE TEAM**
Chair: Deb Hamernik, PhD (University of Nebraska-Lincoln)
Panelists: Folami Ideraabdullah (University of North Carolina School of Medicine)
Thomas Jansson, MD PhD (University of Colorado School of Medicine)

SESSION IV – ART, REPRODUCTIVE ENDOCRINOLOGY, & OFFSPRING HEALTH

- Chair: Nicole Tillquist, PhD (University of Connecticut)
Dusty Yates, PhD (University of Nebraska-Lincoln)
- 8:15–8:45 am Lisa Vrooman, PhD (Assistant Professor, Reproductive & Developmental Sciences, Oregon Health Science Center)
Overview: IVF and the placental proteome
- 8:45–9:15 am Monica Mainigi, MD (Associate Professor, Obstetrics & Gynecology, University of Pennsylvania)
Overview: ART technologies on implantation, placentation, and DNA methylation
- 9:15–9:45 am **Early Career Speaker:** Colin Conine, PhD (Assistant Professor, Pediatrics, University of Pennsylvania)
Overview: The functions of small RNAs in fertility, inheritance, and development
- 9:45–10:15 am **Early Career Speaker:** Maria Gracia Gervasi, PhD (Assistant Professor, Animal Science, University of Connecticut)
Overview: Sperm treatments to improve assisted reproductive technologies in cattle
- 10:15–10:45 am **Early Career Speaker:** Jessye Wojtusik, PhD (Lead Scientist, Reproduction, Omaha's Henry Doorly Zoo & Aquarium)
Overview: Mechanisms of assisted reproductive technologies in zoo animals
- 10:45–11:00 am Break

SESSION V – REGULATION OF IMPLANTATION & PLACENTATION

- Chair: Rachel Gibbs, PhD (North Dakota State University)
Deb Hamernik, PhD (University of Nebraska-Lincoln)
- 11:00–11:30 am Soumen Paul, PhD (Professor, Pathology & Laboratory Medicine, University of Kansas Medical Center)
Overview: Molecular mechanisms for self-renewal, differentiation, and function of trophoblast
- 11:30–12:00 pm Jane Cleal, PhD (Associate Professor, Medicine, University of Southampton)
Overview: Maternal exposures and molecular regulation of the placenta and endometrium
- 12:00–12:30 pm Mike Soares, PhD (Professor, Pathology & Laboratory Medicine, University of Kansas Medical Center)
Overview: Regulatory processes controlling the development of the hemochorial placenta
- 12:30–12:45 pm **Trainee talk**–TBD
Overview: TBD
- 12:45–1:15 pm **Trainee Flash Talks:** TBD (x5)
Overview: 5-minute research overviews, 1-2 questions each
- 1:15–6:00 pm **Free Time and Networking**

6:00–7:30 pm **Conference Dinner and Presentation of Awards**
 7:30–8:30 pm **DJP BARKER MEMORIAL LECTURE:** Laura Brown, MD (Professor, Pediatrics-Neonatology, University of Colorado School of Medicine)
Overview: Stress-induced fetal programming of metabolic health

8:30–9:45 pm **POSTER SESSION II**

Day 4 – August 19th

6:45–8:15 am Continental Breakfast

7:00–8:00 am **Trainee Workshop 3:** TIPS FOR STARTING YOUR INDEPENDENT RESEARCH LAB

Chair: Stephanie Wesolowski, PhD (University of Colorado School of Medicine)

Panelists: Allison Meyer, PhD (University of Missouri)

Rachel Gibbs, PhD (North Dakota State University)

SESSION VI – THE ROLE OF NUTRITION IN THE DEVELOPMENT OF THE NEWBORN

Chair: Amelia Tanner, PhD (University of Colorado School of Medicine)

Virginia Winn, MD, PhD (Professor, Obstetrics & Gynecology, Stanford University)

8:15–8:45 am Susan Carlson, PhD (Professor, Dietetics & Nutrition, University of Kansas School of Medicine)

Overview: The role of fatty acids in early brain development

8:45–9:15 am Paula Meier, PhD (Professor, Pediatrics, Rush University School of Medicine)

Overview: Breastfeeding and milk fortification for preterm infants in the NICU

9:15–9:45 am **Early Career Speaker:** Hannah Hollinger, PhD (Assistant Professor, Animal Science, University of Wyoming)

Overview: Development of milk and early gut microbiomes in cattle

9:45–10:00 am **Trainee talk**–TBD

Overview: TBD

10:00–10:15 am Break

SESSION VII – ENVIRONMENTAL EXPOSURE & TOXINS DURING PREGNANCY

Chair: Allison Meyer, PhD (University of Missouri)

Stephanie Wesolowski, PhD (University of Colorado School of Medicine)

10:15–10:45 am Clyde Wright, MD (Professor, Pediatrics–Neonatology, University of Colorado School of Medicine)

Overview: Effects of environmental toxin exposure on fetal development

10:45–11:15 am Carrie McCurdy, PhD (Associate Professor, Human Physiology, University of Oregon)

Overview: Effects of maternal high-fat diets on adolescent lipid metabolism in primates

11:15–11:45 am Michael Golding, PhD (Professor, Veterinary Physiology & Pharmacology, Texas A&M University)

Overview: Alcohol-induced birth defects

11:45–12:15 pm Almudena Veiga-Lopez, DVM, PhD (Associate Professor, Pathology, University of Illinois-Chicago)

Overview: Effect of endocrine disrupting chemicals on placental function and metabolic disease

12:30–1:00 pm Conference Closure–Final comments and election of the next Organizing Committee

Organizing Committee

Dusty Yates, University of Nebraska-Lincoln

Ryan Ashley, New Mexico State University

Teresa Davis, Baylor College of Medicine

Scientific Committee

Emily Su, University of Colorado School of Medicine

Stephanie Wesolowski, University of Colorado School of Medicine

Sarah Reed, University of Connecticut

Rebecca Simmons, University of Pennsylvania

Michelle Baak, University of South Dakota

Derris Devost-Burnett, Mississippi State University

Folami Ideraabdullah, University of North Carolina School of Medicine

Allison Meyer, University of Missouri

Sathish Kumar Natarajan, University of Nebraska-Lincoln

Cetewayo Rashid, University of Kentucky