

# Exploring Translational DOHaD Science: from Cells to Communities

The 8<sup>th</sup> Annual Meeting of the United States DOHaD Society

October 14-16<sup>th</sup>, 2024

Rizzo Center, Chapel Hill, NC

\*This schedule is subject to change at the discretion of the Leadership Council

## Trainee Day: Monday, October 14, 2024 (Magnolia Room)

8:00 – 8:30AM	Check-in and Buffet Breakfast (Loudermilk Hall Area)
8:30 – 8:45AM	Welcome and Schedule Overview Megan Beetch, PhD & Kyle Siemers – US DOHaD Trainee Representatives
8:45 – 9:15AM	Tips and Tricks for NIH Grants Kurt Albertine, PhD – Children’s Mercy
9:15 – 9:30AM	Break (coffee and snacks provided)
9:30 – 10:00AM	Peer Review and Publishing Kim Gaetz, PhD – NIEHS / <i>Environmental Health Perspectives</i>
10:00 – 10:30AM	Public Health and DOHaD Advocacy Sarah Verbiest, DrPH – University of North Carolina at Chapel Hill
10:30 – 12:00PM	<b>US DOHaD CONNECT</b> <b>Clinical Collaborations:</b> <ul style="list-style-type: none"><li>• Erin Madriago, MD – Oregon Health and Sciences University</li><li>• Caty Buck, MD - Yale School of Medicine</li></ul> <b>Opportunities Outside Academia:</b> <ul style="list-style-type: none"><li>• Jerry Heindel, PhD – Healthy Environment and Endocrine Disruptor Strategies (HEEDS)</li><li>• Kim Gaetz, PhD – NIEHS /<i>Environmental Health Perspectives</i></li></ul> <b>New PIs on the Block:</b> <ul style="list-style-type: none"><li>• Kaela Varberg, PhD – Children’s Mercy</li><li>• Banu Gumusoglu, PhD – University of Iowa</li></ul> <b>National Funding Avenues:</b> <ul style="list-style-type: none"><li>• Paige Cooper Byas, PhD – Burroughs Wellcome Fund</li><li>• Danny Schust, MD – Reproductive Scientist Development Program</li><li>• Kurt Albertine, PhD – Children’s Mercy</li></ul> <b>External Collaborations Among Scientists and Societies:</b> <ul style="list-style-type: none"><li>• Becky Simmons, MD – Children’s Hospital of Philadelphia</li><li>• Matt Gillman, MD SM – NIH/ECHO</li></ul> <b>Transitions and Failures:</b> <ul style="list-style-type: none"><li>• Alina Maloyan, PhD – Oregon Health and Sciences University</li><li>• Danielle Christifano, PhD – University of Kansas Medical Center</li></ul>
12:00 - 1:00PM	Group Photo (Outdoor space in Meadowmont Area) Buffet Networking Lunch (Meadowmont Area)

1:00 – 2:00PM	Professional Branding Vanessa Doriott Anderson, PhD – University of North Carolina at Chapel Hill
2:00 – 2:30PM	Poster Teasers
2:30 – 3:00PM	Burnout Busters Megan Beetch, PhD & Kyle Siemers – US DOHaD Trainee Representatives
3:00 - 3:30PM	Break (coffee and snacks provided), transition and/or change for yoga
3:30 – 4:30PM	Yoga (optional) (Magnolia AB) Morgan Britton, University of North Carolina at Chapel Hill
3:30 – 4:30PM	NIH ECHO/EPA Networking Event (optional) (Magnolia C)
4:30 – 5:30PM	Trainee Day conclusion and break

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5:30 – 9:00PM	<b>Annual Meeting Welcome Reception and Poster Session</b> Heavy Hors d'oeuvres and drinks served in the Loudermilk Hall Area All conference attendees are encouraged to attend. Meeting registration table will be open for check-in and badge pick-up.
6:00PM	Welcome and Introductory Remarks (Magnolia Room) Presented by Danielle Christifano, US DOHaD Society President <ul style="list-style-type: none"> <li>- The History and Future of DOHaD <ul style="list-style-type: none"> <li>o Jerry Heindel, PhD - HEEDS</li> </ul> </li> <li>- US DOHaD and the NIH Echo Program <ul style="list-style-type: none"> <li>o Matt Gillman, MD SM – ECHO/NIH</li> </ul> </li> <li>- Poster Session Kickoff and Introduction</li> </ul>
6:30 – 9:00PM	Poster Competition & Exhibition (Magnolia Room)  6:30 – 7:15 - Poster session A 7:15 – 8:00 - Poster session B 8:00 – 8:45 - Poster session C

## Program Day 1: Tuesday, October 15, 2024 (Magnolia Room)

6:30AM Walk and Talk Trails (Led by Megan Beetch & Kyle Siemers)  
Meet in the lobby for a 30-45 min walk through the Little Creek Trail System

7:30AM Breakfast and Check-in (Loudermilk Hall Area)  
Meeting registration table will be open for badge and program pick-up.

8:00AM **Welcome and Introduction**

- Leadership Council Introductions
- Scientific Program Overview

8:20AM **Theme 1: Early Nutrition and Developmental Outcomes**  
Session Chairs: Folami Ideraabdullah, PhD (University of North Carolina at Chapel Hill) and Sathish Kumar Natarajan, PhD (University of Nebraska Lincoln)

Keynote: Marisa Spann, PhD (Columbia University)  
8:20-9:00AM "Maternal Immune Activation as a Primary Influencer of the Developing Human Brain"

Platform: Abstract O-1  
9:00-9:20AM Fatima Gunter-Rahman, BS (Harvard-MIT Program in Health Sciences and Technology)  
"Maternal obesity and offspring neurodevelopment are associated with hypoxia response gene expression in term human placenta"

Keynote: Maureen Black, PhD (University of Maryland)  
9:20-10:00AM "Thriving Infants: A Pathway to Strong Communities"

10:00-10:30AM **Break** Coffee and snacks provided

Platform: Abstract O-2  
10:30-10:50AM Antonio Marcus de Andrade Paes, PhD (Universidade Federal do Maranhão)  
"Perigestational Excess Sugar Intake as a Risk Factor for Early-Onset MASLD in Offspring"

Keynote: John Colombo, PhD (University of Kansas Medical Center)  
10:50-11:20AM "Long-Term Effects of Early Nutrition on Neurodevelopmental Outcomes"

11:30AM **US DOHaD Business Meeting (Members Only)**  
Boxed lunches provided for all attendees

12:30PM **Theme 2: Prenatal Origins of Child Health**  
Session Chairs: Michael Cowley, PhD (North Carolina State University) and Alina Maloyan, PhD (Oregon Health and Sciences University)

Keynote: James Gern, MD (University of Wisconsin)  
12:30-1:10PM "Microbial Origins of Childhood Asthma"

Platform: Abstract O-3  
1:10-1:30PM Anne Starling, PhD (University of North Carolina)  
"Associations between Prenatal Air Pollution Exposure and Cord Blood DNA Methylation are Modified by Neighborhood Socioeconomic Deprivation."

Platform: Abstract O-4  
1:30-1:50PM Miyeko Mana, PhD (Arizona State University)  
"Developmental programming of intestinal stem cells: how maternal obesity influences cells that live forever"

Keynote: Christina Chambers, PhD (University of California San Diego)  
1:50-2:30PM "Contribution of prenatal substance exposures to health and disease across the lifespan"

Platform: Abstract O-5  
2:30-2:50PM Michael Ross, MD (The Lundquist Institute)  
"The Impact of Maternal Obesity on Breast Milk Composition"

2:50-3:20PM

Coffee Break

Coffee and snacks provided

3:20PM

**Theme 3: Developmental Impacts of Toxicant Exposures** Session Chairs:  
Session Chairs: Jessie Buckley, PhD (University of North Carolina at Chapel Hill) and Kurt Albertine, PhD (Children's Mercy)

Keynote: Rosalind Wright, MD, MPH (Mount Sinai)  
3:20-4:00PM "Multi-level determinants of child health: From constricting communities and fragile families to exposomics"

Platform: Abstract O-6  
4:00-4:20PM Xian Wu, PhD (East Carolina University)  
"Prenatal Arsenic Exposure Impairs Early Heart Development: Cardiac Organoid as a Model"

Platform: Abstract O-7  
4:20-4:40PM Dalisa Kendricks, PhD (NIEHS)  
"Long-term neurobehavioral toxicity following prenatal low-dose chlorpyrifos exposure"

Keynote: Dorothy Nakiwala, PhD (University of Colorado)  
4:40-5:20PM "Neurobehavioral and obesity-related effects of gestational exposure to mixtures of non-persistent endocrine disruptors in preschool-aged children"

5:30-6:00PM

Break

6:00-8:00PM

**Reception and Awards Ceremony**

Casual dinner and cash bar in the Loudermilk Hall Area

## Program Day 2: Wednesday, October 16, 2024 (Magnolia Room)

- 6:30AM Walk and Talk Trails (Led by Megan Beetch & Kyle Siemers)  
Meet in the lobby for a 30-45 min walk through the Little Creek Trail System
- 7:30AM Breakfast and Networking (Loudermilk Hall Area)
- 8:00AM **Welcome and Introduction**  
- 9<sup>th</sup> Annual Meeting Announcement
- 8:20AM **Theme 4: Metabolic Origins of Health**  
Session Chairs: Laetitia Meyreux, PhD (US Environmental Protection Agency) and Phu Tran, PhD (University of Minnesota)
- Keynote: Susan Sumner, PhD (University of North Carolina at Chapel Hill)  
8:20-9:00AM "Harnessing the power of untargeted metabolomics in studies of early life exposures and health outcomes"
- Platform: Abstract O-8  
9:00-9:20AM Nipun Saini, PhD (University of North Carolina at Chapel Hill)  
"Prenatal Alcohol Exposure Disrupts Maternal Hepatic and Placental Glucose Metabolism to Impair Fetal Growth and Development"
- Platform: Abstract O-9  
9:20-9:40AM Megan Beetch, PhD (University of Minnesota)  
"Placental mTOR signaling links mitochondrial function, nutrient transport, and neonatal beta-cell health in mice"
- 9:40-10:00AM **Break** **Coffee and snacks provided**
- Keynote: Cetewayo Rashid, PhD (University of Kentucky)  
10:00-10:40AM "Metabolism-Disrupting Chemicals: Legacy Exposures and Emerging Threats"
- Platform: Abstract O-10  
10:40-11:00AM Colette Miller, PhD (US Environmental Protection Agency)  
"Is fetal growth restriction a risk factor for hepatic feminization? Findings from studies of ozone exposure during gestation"
- Platform: Abstract O-11  
11:00-11:20AM Mary Elaine Graham, BA (Wake Forest University)  
"Advanced maternal age is associated with increased offspring birth weight in a nonhuman primate model"
- 11:20AM **Theme 5: Maximizing Translational Impact of DOHaD Research**  
Session Chairs: Linda Adair (University of North Carolina at Chapel Hill) and Sue Fenton (North Carolina State University)
- Keynote: Christopher Kuzawa, PhD (Northwestern University)  
11:20-12:00PM "Evolutionary insights into the challenges of translating DOHaD science into social policy"
- 12:00-1:30PM **Closing Remarks (Grab and Go Boxed lunches)**