

Detailed Programme for the 5<sup>th</sup> Annual DOHaD Academic Meeting: May 31<sup>st</sup>-June 2<sup>nd</sup>, 2021

Monday, May 31<sup>st</sup>, 2021

Time (EST)	<b>Day 1: A Mother's Psychological Stress: Impact on the Infant Gut Microbiome and Neurodevelopment</b> <i>Moderators: Dr. Anita Kozyrskyj and Carmen Tessier</i>
10:45-11:00am	<b>Opening Remarks</b> Co-Chairs of organizing committee: Dr. Sophie Petropoulos and Dr. Marcel van Wouw (trainee) President of DOHaD Canada: Prof. Stephen Matthews
11:00-11:45am	<b>Invited Speaker: Dr. Rebecca Knickmeyer</b> Associate Professor in Pediatrics and Development, Michigan State University <b>Title:</b> <i>Gut Microbes and the Infant Brain</i>
11:45-12:00pm	<b>Trainee:</b> Tamara Bodnar <b>Title:</b> <i>Evidence for long-lasting alterations in the fecal microbiome following prenatal alcohol exposure</i>
12:00-12:15pm	<b>Trainee:</b> Marcel van de Wouw <b>Title:</b> <i>Associations Between Internalizing Behaviors and the Gut Microbiota in Preschool Children</i>
12:15-12:30pm	<b>Trainee:</b> Carmen Tessier <b>Title:</b> <i>Breastfeeding Duration and Infant C. difficile Colonization Sequentially Mediate the Impact of Prenatal Depression on Child Cognitive Scores: A Novel Pathway Exploring the Early Gut-Brain Axis</i>
12:30-1:30pm	<i>Free time</i>
1:30-2:15pm	<b>Speaker: Dr. Anita Kozyrskyj,</b> Professor of Pediatrics, University of Alberta <b>Title:</b> <i>Gut Microbiome Enterotypes in Infancy and Neurodevelopment</i>
2:15-2:30pm	<b>Trainee:</b> - Natalia Hula <b>Title:</b> <i>Placenta-Targeted Treatment During Hypoxic Pregnancies Improves Cardiac Tolerance to Ischemia/Reperfusion Insult in Adult Male and Female Rat Offspring</i>
2:30-2:45pm	<b>Trainee:</b> - Mateus Tomczyk <b>Title:</b> <i>Gestational Diabetes Exposure Altered Cardiac Mitochondrial Protein Acetylation in the Mouse Offspring</i>
2:45-3:00pm	<b>Trainee:</b> - Shelby Oke <b>Title:</b> <i>In utero exposure to D9-tetrahydrocannabinol leads to rapid postnatal catch-up growth and hepatic dysmetabolism</i>

Tuesday, June 1<sup>st</sup>, 2021

Time (EST)	<b>Day 2: Breast(milk)feeding and DOHaD: how do infant feeding practices and human milk components shape health trajectories?</b> <i>Moderators:</i> Drs. Meghan Azad and Sarah Turner
10:55-11:00am	Introduction for the day
11:00-11:45am	<b>Invited Speaker: Dr. Bridget E Young</b> Assistant Professor in Pediatrics and Public Health Sciences, University of Rochester, Golisano Children's Hospital <b>Title:</b> <i>Mechanisms of action for Bioactives in Milk - Medicine or Myth?</i>
11:45-12:00pm	<b>Trainee:</b> Jessica Ann Breznik <b>Title:</b> <i>Excess gestational weight gain alters maternal intestinal adaptations in C57BL/6J mice during lactation</i>
12:00-12:15pm	<b>Trainee:</b> Maryam Kebbe <b>Title:</b> <i>How do maternal eating behaviors influence attitudes toward infant feeding among breastfed and formula-fed infants in a low-income population?</i>
12:15-12:30pm	<b>Trainee:</b> Nicole Rodriguez <b>Title:</b> <i>Maternal depression impacts infant gut microbial composition dependent on breastfeeding status</i>
12:30-1:30pm	<i>Free Time</i>
1:30-2:15pm	<b>Speaker: Dr. Meghan Azad</b> Associate Professor of Pediatrics and Child Health, University of Manitoba <b>Title:</b> <i>Mother's Milk &amp; Baby's Bacteria: DOHaD Insights from the CHILD Cohort Study</i>
2:15-2:30pm	<b>Trainee:</b> Rhizlane El Omri <b>Title:</b> <i>Mapping of DNA methylation in rat male germ cells during gametogenesis</i>
2:30-2:45pm	<b>Trainee:</b> Meghan Bogert <b>Title:</b> <i>Examination of the Association Between Circulating Maternal Growth Factors and Hormones in Pregnancy and Early Infant Growth</i>
2:45-3:00pm	<b>Trainee:</b> Queenie Li <b>Title:</b> <i>Associations between neighborhood factors, child sleep, and language development</i>
3:00-4:00pm	Breakout rooms for Flash Talk Q&A

Wednesday, June 2<sup>nd</sup>, 2021

Time (EST)	<b>Day 3: Pregnancy during the Pandemic: Risk factors and long-term implications for child health</b> <i>Moderators:</i> Drs. Gerry Giesbrecht and Kathryn Manning
10:55-11:00am	Introduction for the day
11:00-11:45am	<b>Speakers: Dr. Gerry Giesbrecht, Dr. Lianne Tomfohr-Madsen and Dr. Catherine Lebel</b> Associate Professors at the University of Calgary in Pediatrics and Community Health Sciences, Psychology, and Radiology, respectively <i>Title: Socioecological determinants of DOHaD during the COVID-19 pandemic</i>
11:45-12:00pm	<b>Trainee:</b> Preeti Kar <b>Title:</b> Alcohol and substance use in pregnancy during the COVID-19 pandemic
12:00-12:15pm	<b>Trainee:</b> Elliot Wong <i>Title: Concentration responsive effects of remdesivir on mouse preimplantation development</i>
12:15-12:30pm	<b>Trainee:</b> Laura Rojas <b>Title:</b> Fear of COVID-19 Among Pregnant Canadian Women
12:30-1:30pm	Virtual Social Networking
1:30-2:15pm	<b>Keynote Speaker: Dr. Suzanne King</b> Professor in the Department of Psychiatry, McGill University <i>Title: Mother Nature's Disasters and Pregnant Mothers' Stress: Emerging Conclusions from 23 Years of Prenatal Maternal Stress Research</i>
2:15-2:45pm	<b>Closing remarks and trainee awards</b>

**Q&A Schedule for Flash Talks: Tuesday, June 1<sup>st</sup>, 2021 3:00-4:00pm EST**

**Breakout Room 1: COVID**

**Judges:** Drs. Stephen Renaud and Floor Spaans

Order	TIME (EST)	Presenter	Title of Flash Talk
	3:00-3:05	Enter Room	
1	3:05-3:10	Sana Amjad	The impact of coronavirus (COVID-19) pandemic on the socioeconomic well-being of Métis children in Alberta
2	3:10-3:15	Aine Brislane	Access to and Quality of Healthcare for Pregnant and Postpartum Women During the COVID-19 Pandemic
3	3:15-3:20	Meredith Lee Brockway	Developing the International Perinatal Outcomes in the COVID-19 Pandemic (iPOP) Consortium: Embracing research opportunities in a new reality
4	3:20-3:25	Danielle Cattani	Work-related Disparities between Pregnant Individuals and their Partners During the COVID-19 Pandemic
5	3:25-3:30	Justine Dol	Impact of COVID-19 restrictions on the postpartum experience of women living in Eastern Canada: A mixed methods cohort study
6	3:30-3:35	Kathryn Manning	Prenatal maternal distress during the COVID-19 pandemic and its effects on infant brain connectivity
7	3:35-3:40	Justin Okeke	Impact of the COVID-19 pandemic on mental health of women during pregnancy and post-partum
8	3:40-3:45	Elisabeth Xie	Relationship Quality Predicts Mental Health in the Pregnancy During the COVID-19 Pandemic Cohort: A Four-Wave Crosslagged Panel Analysis

**Breakout Room 2: Metabolic Health**

**Judges:** Drs. Stephen Lye and Jessica Canizo

Order	TIME (EST)	Presenter	Title of Flash Talk
	3:00-3:05	Enter Room	
1	3:05-3:10	Yanan Wang	Association between microbial metabolites and sleep in preschool aged children
2	3:10-3:15	Camille Dugas	Association between Gestational Diabetes Mellitus and Human Milk Composition
3	3:15-3:20	Sarah Rong Huang	Large-for-gestational-age, leptin, adiponectin and adiposity in infancy
4	3:20-3:25	Zuleika Leung	Oleic acid rescues autophagy changes induced by palmitic acid during mouse preimplantation development
5	3:25-3:30	Emilie Bernier	Critical appraisal of diet quality assessment tools during pregnancy: a systematic review protocol
6	3:30-3:35	Meghan Bogert	Choline intake and metabolomic signature in early and late pregnancy
7	3:35-3:40	Carlene Cihosky	Understanding the impact of life-long maternal western diet consumption on fetoplacental development
8	3:40-3:45	Grace Dionne	Fatty acid regulation of Nrf2/Keap1 pathway during mouse preimplantation embryo development
9	3:45-3:50	Zachary Easton	Characterization of BeWo trophoblast metabolic function in response to hyperglycemia culture conditions
10	3:50-3:55	Fareeha Quayyum	Barriers to Nutritional Pregnancy Preparation and Support Needs in Women and Partners: Qualitative Study based on the Theoretical Domains Framework

**Breakout Room 3: Stress and Distress**

Judges: Drs. Stephen Matthews and Timothy Regnault

Order	TIME (EST)	Presenter	Title of Flash Talk
	3:00-3:05	Enter Room	
1	3:05-3:10	Shela Hirani	Effects of Disaster and Displacement on Breastfeeding Mothers in Post-disaster Settings
2	3:10-3:15	Ritika Sharma	Epigenome wide association study in prenatally stressed newborns: FELICITY study
3	3:15-3:20	Katherine Silang	Effectiveness of eHealth Interventions to treat Depression, Anxiety and Insomnia during Pregnancy: A Systematic Review and Meta-Analysis
4	3:20-3:25	Derrick Ssewanyana	Does Prenatal vitamin intake and maternal prenatal psychological distress have impact on children's cognitive development?
5	3:25-3:30	Barbara Verstraeten	Resilience, coping styles, and cognitive appraisal moderate disaster effects on maternal posttraumatic stress: the Fort McMurray Wood Buffalo wild
6	3:30-3:35	Xinyuan Li	Disaster-related prenatal maternal stress predicts abnormalities in gray matter volume and resting-state functional connectivity in late adolescence
7	3:35-3:40	Xinyuan Li #2	Effectiveness of cognitive behavioral therapy for perinatal maternal depression, anxiety and stress: A systematic review and meta-analysis
8	3:40-3:45	Peter Zimmermann	Sex specific effects of the impact of prenatal stress on neonatal iron homeostasis

**Breakout Room 4: Various Topics**

Judges: Drs. Sandra Davidge and Maria Ospina

Order	TIME (EST)	Presenter	Title of Flash Talk
	3:00-3:05	Enter Room	
1	3:05-3:10	Katherine Kennedy	Meconium Does Not Have a Detectable Microbiota Prior to Birth
2	3:10-3:15	Yuan Yao Chen	Impact of maternal intrapartum antibiotics, birth mode and breastfeeding status on levels of Bifidobacterium in infant gut microbiota
3	3:15-3:20	Benedicte Fontaine-Bisson	Social, economic and cultural factors associated with gestational weight gain among vulnerable pregnant women: A scoping review
4	3:20-3:25	Thoko Hanjahanja-Phiri	A novel prenatal supplement versus intergenerational effects of maternal exposure to drought in early life in Malawi
5	3:25-3:30	Peter Johnson	Shedding light on sunlight exposure during pregnancy on offspring health: a scoping review
6	3:30-3:35	Amanda Rowlands	Hypothalamic-pituitary-adrenal axis activity and sleep patterns across stages of the adolescent transition in a group of Mayan girls – A preliminary analysis
7	3:35-3:40	Allyson Wood	Pyroloquinoline Quinone (PQQ) Exposure Negatively Alters Skeletal Muscle Gene Expression in Addition to Oxidative Stress/Fetal Growth Restriction Effects.
8	3:40-3:45	Elizabeth Elder	TEMPORARY INACTIVATION OF DNMT1 DNA METHYLATION MAINTENANCE CAUSES PERMANENT EPIGENETIC ERRORS IN EMBRYONIC STEM CELLS
9	3:45-3:50	Ana Costa	Chronic inflammation and the pace of reproductive maturation in adolescent Mayan girls
10	3:50-3:55	Yeneir Fernandez	National Cuban Child Cohort Study: Sixth follow-up of the cohort started in 1973