



Developmental Neurotoxicology Society

47th Annual Meeting

JUNE 24-28, 2023

CHARLESTON MARRIOTT

CHARLESTON, SC

Saturday June 24, 2023

2:00 PM - 5:00 PM
Emerald Prefunction

Registration Open

3:00 PM - 5:00 PM
Yellow Topaz

Council Meeting

Sunday June 25, 2023

8:00 AM - 1:30 PM
Emerald Prefunction

Registration Open

8:45 AM - 9:00 AM
Emerald Three

President's Welcome

9:05 AM - 12:05 PM
Emerald Three

DNTS Symposium: Developmental Outcomes Following Neuroinflammatory Exposures

Chairpersons

Laura M. Carlson, US Environmental Protection Agency

Tim Anderson, US Environmental Protection Agency

9:05 AM - 9:35 AM

Overview of the Role of the Immune System in Brain Development and Function

Sarah Blossom

University of New Mexico

CANCELLED

9:35 AM - 10:05 AM

Pregnancy-Dependent Neuroimmune and Endocrine Effects of Endocrine Disrupting Chemical Mixtures: Implications for Maternal Health and Fetal Development

Marissa Sobolewski

University of Rochester

10:05 AM - 10:35 AM

Environmental Exposures and Neurobehavioral Disorders

Gisel Flores-Montoya

Carleton College

10:35 AM - 10:50 AM

Break

10:50 AM - 11:20 AM

The Lasting Impact of Maternal Immune Activation During Gestation and Neurodevelopment

Judy Van de Water

University of California Davis

11:20 AM - 11:50 AM

Promoting Neuroprotection vs. Neurodegeneration: Sex- and Age-Specific Neuroinflammatory Responses to Injury and Infection

Monica Carson

University of California Riverside

11:50 AM - 12:05 PM

Discussion

12:05 PM - 1:30 PM

Lunch on your own

1:30 PM - 2:30 PM

Emerald Three

DNTS Elsevier Distinguished Lecture

Climate Change, Fossil-Fuel Pollution, and Children's Health and Development

Chairperson

Patricia Janulewicz Lloyd, Boston University

Lecturer

Frederica Perera, Columbia Mailman School of Public Health

2:30 - 2:50 PM

Break

2:50 PM - 3:50 PM

Emerald Three

DNTS Strategic Planning Meeting

3:50 PM - 5:20 PM

Crystal Ballroom A

The HEALTHy Brain and Child Development Study Symposium

(Joint with BDRP)

Chairpersons

Christina D. Chambers, University of California San Diego

Ludmila Bakhireva, University of New Mexico

3:50 PM - 4:10 PM

The HEALTHy Brain and Child Development Study: Why This and Why Now?

Michelle Freund

National Institute on Drug Abuse

4:10 PM - 4:30 PM

Overview of the HBCD Study Design and Plan for Data Release

Christina D. Chambers

University of California San Diego

4:30 PM - 4:50 PM

Selection of Measures and Pilot Results for Biospecimens in the HBCD Study

Ludmila Bakhireva

University of New Mexico

4:50 PM - 5:10 PM

Selection of Measures and Pilot Results for Neuroimaging

Chris Smyser

University of Washington

5:10 PM - 5:20 PM

Discussion

5:25 PM - 5:55 PM
Crystall Ballroom A

Patricia Rodier Mid-Career Award for Researching and Mentoring Interactions Between Early Postnatal Experience, Gut Microbiota, and Adult Neurobehavior in a Rodent Model
(Joint with BDRP)

Lori Driscoll
Colorado College

6:00 PM - 7:30 PM
Crystal Ballroom D

Poster Session 1 and Exhibits Attended
(Joint with BDRP and OTIS)

E-cigarette aerosol exposure decreases GABA neuron migration in the embryonic brain

Amber Parnell, Deirdre McCarthy, Mia Trupiano, Pradeep Bhide
Florida State University, Tallahassee, USA

An apparent increase in medial frontal cortical glutamatergic neurons following loss of the dopamine D2R in a GABAergic interneuron subpopulation

Yasmeena Thabet, Gregg Stanwood
Florida State University, Tallahassee, USA

Reductions in neocortical parvalbumin expression due to iodine deficiency and ammonium perchlorate exposure

MaryAnn Hawks^{1,2}, Kiersten Bell^{1,2}, Ryne Thomas^{1,2}, Jermaine Ford³, Mary Gilbert¹
¹Center for Public Health and Environmental Assessment, Research Triangle Park, USA. ²Oak Ridge Institute for Science and Education, Oak Ridge, USA. ³National Center for Computational Toxicology, Research Triangle Park, USA

Prevalence of periventricular heterotopia within adult rats following developmental exposure to perchlorate and dietary iodine deficiency

Ryne Thomas^{1,2}, Kiersten Bell^{1,2}, Cal Riutta^{1,2}, Maryann Hawks^{1,2}, Jermaine Ford^{1,2}, Mary Gilbert^{1,2}

¹Centre for Public Health and Environmental Assessment, RTP, USA. ²Oak Ridge Institute for Student Education, Oak Ridge, USA

Targeted proteomics analysis for parvalbumin in rat brain tissue

Jermaine Ford, Mary Gilbert
US Environmental Protection Agency, Research Triangle Park, USA

7:30 PM - 9:30 PM
Yellow Topaz

Graduate Student and Postdoctoral Fellows Career Event
Hosted by Middle Atlantic Reproduction and Teratology Association (MARTA)

Monday
June 26, 2023

8:00 AM - 12:00 PM
Emerald Prefunction

Registration Open

8:00 AM - 9:00 AM
Crystal Ballroom A

Keynote Lecture
Protecting Mothers and Babies: A Time for Change
(Joint with BDRP and OTIS)

Christina Bucci-Rechtweg
Novartis Pharmaceuticals Corporation

9:05 AM - 12:00 PM
Emerald Three

DNTS Platform Session 1

Chairperson
Diana Dow-Edwards, State University of New York

9:05 AM - 9:30 AM

Prenatal Cannabis Use During the Second Trimester of Pregnancy in the YoungMoms Project

Natacha De Genna

University of Pittsburgh

9:30 AM - 9:55 AM

Examining the Relationship of Acetaminophen Use During Pregnancy with Early Language Development in Children

Megan Woodbury

University of Illinois Urbana-Champaign

9:55 AM - 10:20 AM

Associations of Prenatal Triclosan Exposure with Parent-Reported Behavioral Problems in Two- and Three-Year-Old Children

Karishma Patel

University of Illinois Urbana-Champaign

10:20 AM - 10:35 AM

Break

10:35 AM - 11:00 AM

Associations Between a Prenatal Stress Mixture and Preschoolers' Temperament: Impact of Race/Ethnicity

Francheska Merced-Nieves

Ichan School of Medicine at Mount Sinai

11:00 AM - 11:25 AM

Do Infant Behaviors Mediate the Relationship of Prenatal Cocaine Exposure (PCE) to Adult Perceptual Reasoning Deficits?

Lynn Singer

Case Western Reserve University

11:25 AM - 11:45 AM

Discussion

11:45 AM - 2:35 PM

Lunch on your own

12:00 PM - 2:00 PM

Opal One

NTT Editorial Board Working Lunch

2:35 PM - 5:30 PM

Emerald Three

DNTS Platform Session 2

Chairperson

Melissa Bailey, Emporia University

2:35 PM - 3:00 PM

Thyroid Hormone System Adverse Outcome Pathways and Developmental Neurotoxicity

Mary Gilbert

US Environmental Protection Agency

3:00 PM - 3:25 PM

Developmental Trajectories of Locomotor Effects Following Embryonic Toxicant Exposures in Zebrafish

Andrew Hawkey

Midwestern University

3:25 PM - 3:50 PM

Selective Deficits in Frontal Cortical Parvalbumin Containing GABA Neurons Following Developmental Nicotine Exposure

Mia Trupiano

Florida State University College of Medicine

3:50 PM - 4:05 PM

Break

4:05 PM - 4:30 PM

Stress-Related Adaptations Following Loss of Dopamine D1 Receptors in Cerebral Cortical Interneurons

Nella Delva

Florida State University

4:30 PM - 4:55 PM

Interaction of Latrophilin-3, an ADHD Risk Gene, and Deltamethrin in Sprague Dawley Rats on Learning and Memory

Charles Vorhees

Cincinnati Children's Hospital Medical Center

4:55 PM - 5:20 PM

A Pilot Study to Determine if Exercise Can Mitigate the Effects of Benzo[a]pyrene Developmental Neurotoxicity

Christine Curran

Northern Kentucky University

5:20 PM - 5:30 PM

Discussion

5:30 PM - 7:00 PM

Crystal Ballroom D

Poster Session 2 and Exhibits Attended

(Joint with BDRP)

Results from the IRIS systematic review of methylmercury: Developmental neurotoxicology (DNT) outcomes evaluated in the literature

Deborah Segal, Rebecca Nachman, Elizabeth Radke, Leonid Kopylev

U.S. EPA, Washington, DC, USA

Prenatal cocaine exposure and self-reported behavioral adjustments from ages 12 to 21: Environmental pathways

Meeyoung Min¹, Jeffrey Albert², Sonia Minnes², June-Yung Kim³, Sun-Kyung Kim², Gregory Powers², Lynn Singer²

¹University of Utah, Salt Lake City, USA. ²Case Western Reserve University, Cleveland, USA. ³University of North Dakota, Grand Forks, USA

Cognitive and behavioral effects of whole brain conventional or high dose rate (FLASH) proton irradiation in a neonatal Sprague Dawley rat model

Michael Williams^{1, 2}, Chiho Sugimoto², Samantha Regan¹, Emily Pitzer¹, Adam Fritz², Mathieu Sertorio¹, Anthony Mascia¹, Ralph Vatner¹, John Perentes^{1, 2}, Charles Vorhees^{1, 2}

¹University of Cincinnati, Cincinnati, USA. ²Cincinnati Children's Hospital Medical Center, Cincinnati, USA

In utero fentanyl exposure results in long-term functional deficits

Gregg Stanwood, Chioma Uchegbu, Kimberly Blankenship, Trinity Nguyen, Inayat Sood, Devon Graham

Florida State University College of Medicine, Tallahassee, USA

Rural children's health: Intersectional studies of vulnerability to environmental stressors

Alicia Hellman¹, Laurie Abbott¹, Jessica Bahorski¹, Claire Berryman², Joseph

Tuesday
June 27, 2023

8:00 AM - 12:00 PM
Emerald Prefunction

Registration Open

8:00 AM - 9:00 AM
Crystal Ballroom A

Robert L. Brent Lecture - Teratogen Update
The Effects of the Dobbs Decision on Teratology: The Effects on Research
(Joint with BDRP and OTIS)

Chairperson
Anthony M. DeLise, Novartis Pharmaceuticals Corporation

Lecturer
Anne D. Lyerly, University of North Carolina at Chapel Hill

9:05 AM - 12:00 PM
Crystal Ballroom A

Health Disparities within Communities of Color Symposium
(Joint with BDRP and OTIS)
Organized by BDRP Diversity, Equity, and Inclusion Workgroup

Chairpersons
Madeline Vera-Colon, University of California Riverside
Vinita Leedom, South Carolina Department of Health and Environmental Control

9:05 AM - 9:40 AM

What You Need to Know about Children's Health and Environmental Exposures Through the Diet
Gredia Huerta-Montañez
Northeastern University

9:40 AM - 10:15 AM

Disparities and Opportunities in Global Prevention and Care of Folate-Sensitive Spina Bifida
Vijaya Kancherla
Emory University

10:15 AM - 10:30 AM

Break

10:30 AM - 11:05 AM

Traumatic Brain Injury in Women: The Case of Sex/Gender as Social Determinants of Health
Martina Anto-Ocrah
University of Pittsburgh

11:05 AM - 11:45 AM

Medical and Developmental Effects of Prenatal and Early Childhood Lead Exposure
Michelle Myer
SC Department of Health and Environmental Control

11:45 AM - 12:00 PM

Discussion

12:00 PM - 2:00 PM

Lunch on your own

2:00 PM - 5:00 PM
Crystal Ballroom A

COVID-19 and Pregnancy: An Update and Planning for the Future Symposium
(Joint with BDRP)

Chairpersons

*Vijaya Kancherla, Emory University
Sonja A. Rasmussen, Johns Hopkins University*

2:00 PM - 2:25 PM

COVID-19 in Pregnancy: Maternal, Placental, and Fetal Complications
*Andrea Edlow
Mass General Research Institute*

2:25 PM - 2:50 PM

COVID-19 in Pregnancy: An Update from the US Centers for Disease Control and Prevention
*Suzanne Gilboa
National Center on Birth Defects and Developmental Disabilities, CDC*

2:50 PM - 3:15 PM

Findings from the ECHO Cohorts Regarding the Effects of the COVID-19 Pandemic
*Leonardo Trasande
New York University Grossman School of Medicine*

3:15 PM - 3:30 PM

Break

3:30 PM - 3:55 PM

COVID-19 in Early Pregnancy: Clinical Implications and Methodological Considerations
*Sonia Hernandez-Diaz
Harvard T.H. Chan School of Public Health*

3:55 PM - 4:20 PM

COVID-19 in Pregnancy: What Do We Know Now?
*Malavika Prabhu
Mass General Hospital*

4:20 PM - 4:45 PM

Ethics, Evidence, and Vaccination in Pregnancy: Lessons from COVID-19
*Anne Drapkin Lyerly
University of North Carolina at Chapel Hill*

4:45 PM - 5:00 PM

Discussion

6:00 PM - 8:00 PM

DNTS Social

**Wednesday
June 28, 2023**

8:00 AM - 9:00 AM
Emerald Three

Richard Butcher New Investigator Research Award
A novel role for the ADHD risk gene *latrophilin-3* in learning and memory in *Lphn3* knockout rats
*Samantha L. Regan
University of Michigan*

9:05 AM - 12:00 PM
Crystal Ballroom A

Applications of New Approach Methods in Developmental and Reproductive Toxicology Symposium
(Joint with BDRP)

Chairpersons

Amer Jamalpoor, Toxy B.V.

Jessica A. Palmer, Stemina Biomarker Discovery Inc.

9:05 AM - 9:40 AM

Establishing Confidence in NAMs for Developmental and Reproductive Toxicity

Nicole C. Kleinstreuer

NIEHS/NICEATM

9:40 AM - 10:15 AM

Practical Application of New Approach Methods (NAMs) in Developmental Toxicity Testing

Kathryn Wolton/Ramya Rajagopal

Unilever Safety and Environmental Assurance Centre

10:15 AM - 10:45 AM

Warkany Tea

10:45 AM - 11:10 AM

How to Gain Confidence for Using NAMs in the Regulatory Arena of DART Testing

Steven Van Cruchten

Antwerp University

11:10 AM - 11:30 AM

The Use of Zebrafish Alternative Animal Model to Predict Human Developmental and Reproductive Toxicity According to the ICH S5 R3 Guideline

Arantza Muriana

Biobide USA

11:30 AM - 11:50 AM

ReproTracker as an *In Vitro* Alternative to Animal Models for Developmental Toxicity Testing

Amer Jamalpoor

Toxy B.V.

12:30 PM - 2:00 PM

Emerald Three

DNTS Business Meeting

2:00 PM

DNTS Meeting Adjourn

See you next year in

Pittsburgh, PA!

