

# Forty-Third Annual Meeting of the Developmental Neurotoxicology Society

Held in Conjunction with the 59<sup>th</sup> Annual Meeting of the Teratology Society and 32nd Annual Education Meeting for the Organization of Teratology Information Specialists

Sheraton San Diego Hotel and Marina  
San Diego, California  
June 23–26, 2019  
(As of January 16, 2019)

## DNTS 2019 Program

### Saturday, June 22, 2019

4:00 PM–7:00 PM	Registration Open	Harbor Island Foyer
5:00 PM–6:30 PM	DNTS Council Meeting	Location TBD

### Sunday, June 23, 2019

7:00 AM–6:00 PM	Registration Open	Harbor Island Foyer
7:00 AM–8:00 AM	2020 Program Committee Meeting	Location TBD
7:30 AM–8:00 AM	Morning Coffee and Pastries (Joint with TS)	Harbor Island Foyer
8:00 AM–8:15 AM	Presidential Welcome	Harbor Island 1
8:15 AM–9:00 AM	DNTS 1: Josef Warkany Lecture Developmental Toxicity of Perfluorinated Compounds: A Voyage from Animal Studies to Engineered Cells (Joint with TS and OTIS) <i>Chairperson: Dana L. Shuey, Incyte Corporation</i> <i>Lecturer: Barbara D. Abbott</i>	Harbor Island 2
9:05 AM–12:00 PM	DNTS Symposium The Microbiome as a Modulator of Neurodevelopmental Disorders and Neurodegenerative Disease <i>Chairperson: Lori Driscoll, Colorado College, Colorado Springs, CO, USA</i>	Harbor Island 1
9:05 AM–9:15 AM	DNTS 2: The Gut-Brain Axis: A Primer <i>Lori Driscoll, Colorado College, Colorado Springs, CO, USA</i>	
9:15 AM–9:45 AM	DNTS 3: Immune and Microbiota Profiles in Children with ASD and Co-Morbid GI Symptoms <i>Destanie Rose, University of California - Davis MIND Institute, Sacramento, CA, USA</i>	

- 9:45 AM–10:15 AM **DNTS 4: Title TBA**  
*Karen-Anne McVey Neufeld, McMaster University Brain-Body Institute, Hamilton, ON Canada*
- 10:15 AM–10:45 AM **DNTS 5: Title TBA**  
*Siobhain O'Mahony, University College Cork, Cork, Ireland*
- 10:45 AM–11:00 AM Break (Harbor Island Foyer)
- 11:00 AM–11:30 AM **DNTS 6: Mitochondrial Bioenergetics and Gut Metabolites: Implications for Neurotoxicity and Disease**  
*Christopher Martyniuk, University of Florida, Gainesville, FL, USA*
- 11:30 AM–12:00 PM **DNTS 7: Microbiome Based Translational Strategy in Parkinson's Disease**  
*Anumantha Kanthasamy, Iowa State University, Ames, Iowa, USA*
- 12:00 PM–1:30 PM Lunch on Your Own**
- 1:30 PM–2:30 PM Elsevier Distinguished Lecture Harbor Island 1**  
**DNTS 8: Can Endocrine Disrupting Compounds Change Basic Brain Function/Structure Over Multiple Generations?**  
*Emilie Rissman, North Carolina State University, Raleigh, NC, USA*
- 2:35 PM–5:30 PM DNTS/TS Joint Symposium Harbor Island 2**  
**Ocean-Borne Risks to Pregnant Women and Their Babies**  
*Chairpersons: Elaine M. Faustman, University of Washington and Edward D. Levin, Duke University*
- 2:35 PM–3:10 PM **DNTS 9: Benefits and Risks of Oceans on Human Health**  
*Bradley S. Moore, Scripps Institution of Oceanography*
- 3:10 PM–3:45 PM **DNTS 10: Lessons Learned from Hurricane Maria and Impact within the Puerto Rican Children's Cohort from Water Contamination, Infection, and Stress**  
*José F. Cordero, University of Georgia*
- 3:45 PM–4:00 PM Break (Harbor Island Foyer)
- 4:00 PM–4:35 PM **DNTS 11: Domoic Acid Developmental Neurotoxicity: New Insights from Human and Animal Studies**  
*Elaine M. Faustman, University of Washington*
- 4:35 PM–5:10 PM **DNTS 12: What Do Fish Tell Us About Developmental Neurotoxic Risks of the Sea?**  
*Edward D. Levin, Duke University*
- 5:10 PM–5:30 PM Discussion

**5:35 PM–6:00 PM**                      **DNTS 13: Patricia Rodier Mid-Career Award for Research and Mentoring**                      **Harbor Island 2**  
**TBA**  
(Joint with TS)  
*Chairpersons: Nicole Churchill Kleinstreuer, NTP Interagency Center for the Evaluation of Alternative Toxicological Methods, NIEHS and Sonya K. Sobrian, Howard University College of Medicine*  
*Lecturer: TBA*

**6:00 PM–8:00 PM**                      **Welcome Reception, Poster Session 1, and Exhibits Attended**                      **Nautilus**  
(Joint with TS)

**Monday, June 24, 2019**

**7:00 AM–6:00 PM**                      **Registration Open**                      **Harbor Island Foyer**

**7:30 AM–8:00 AM**                      **Morning Coffee and Pastries**                      **Harbor Island Foyer**  
(Joint with TS)

**8:00 AM–9:00 AM**                      **DNTS 14: Keynote Lecture**                      **Harbor Island 2**  
**Environmental Influences on Child Health Outcomes (ECHO): A National Research Program (Joint with TS and OTIS)**  
*Chairperson: Christine Perdan Curran, Northern Kentucky University*  
*Speakers: Carol J. Blaisdell, Environmental Influences on Child Health Outcomes, NIH and Amy Elliott, Avera Research Institute*

**9:05 AM–12:00 PM**                      **DNTS/TS Joint Symposium**                      **Harbor Island 2**  
**Perinatal Choline Supplementation and Risk of Neurodevelopmental Disorders Symposium**  
*Chairpersons: Carl L. Keen, University of California–Davis and Helen J. K. Sable, University of Memphis*

9:05 AM–9:15 AM                      Introduction

9:15 AM–9:45 AM                      **DNTS 15: Choline and Brain Development: An Overview**  
*Steven H. Zeisel, University of North Carolina–Chapel Hill*

9:45 AM–10:15 AM                      **DNTS 16: Maternal Choline Supplementation Produces Lasting Offspring Cognitive Benefits: Insights from a Mouse Model of Down Syndrome and a Small Human Clinical Trial**  
*Barbara Strupp, Cornell University*

10:15 AM–10:30 AM                      Break (Harbor Island Foyer)

10:30 AM–11:00 AM                      **DNTS 17: Can Choline Ameliorate the Neurodevelopmental Effects of Prenatal Exposure to Alcohol?**

*Christina D. Chambers, University of California–San Diego*

- 11:00 AM–11:30 AM **DNTS 18: Perinatal Choline Supplementation Improves Social Behavior in Rodent Models of Autism**  
*Tiffany J. Mellot, Boston University School of Medicine*
- 11:30 AM–12:00 PM **DNTS 19: How Targeted Choline Supplementation Reverses the Negative Neurocognitive and Genomic Impacts of Early-Life Iron Deficiency**  
*Michael K. Georgieff, University of Minnesota*
- 12:00 PM–1:45 PM **Lunch on Your Own**
- 12:00 PM–1:45 PM **NTT Editorial Board Meeting** **Location TBD**
- 1:45 PM–4:00 PM **DNTS Symposium** **Harbor Island 1**  
**Honoring the Contributions of DNTS Member Merle Paule**  
*Chairperson: Jerry Meyer, University of Massachusetts, Amherst*
- 4:00 PM–4:15 PM Break (Harbor Island Foyer)
- 4:15 PM–5:40 PM **DNTS Platform Session 1** **Harbor Island 1**  
*Chairperson: Chip Vorhees, University of Cincinnati and Cincinnati Children's Hospital, Cincinnati, OH, USA*
- 6:00 PM–8:00 PM **Poster Session 2 and Exhibits Attended** **Nautilus**  
(Joint with TS and OTIS)
- 8:00 PM–10:00 PM **Teratology Society and MARTA** **Seabreeze**  
**Graduate Students and Postdoctoral Fellows Career Event**  
(Open to Teratology Society, DNTS, and OTIS Graduate Students and Postdoctoral Fellows)

**Tuesday, June 25, 2019**

- 7:00 AM–6:00 PM **Registration Open** **Harbor Island Foyer**
- 7:30 AM–8:00 AM **Morning Coffee and Pastries** **Harbor Island Foyer**  
(Joint with TS)
- 8:15 AM–9:00 AM **DNTS 28: Workshop** **Harbor Island 1**  
**Alternative Statistical Approaches for Controlling Litter Effects**  
*Lecturer: Christina Sobin, University of Texas, El Paso*
- 9:05 AM–12:00 PM **DNTS/TS Joint Symposium** **Harbor Island 2**  
**Establishing Scientific Confidence in Alternate Approaches**

*Chairpersons: Nicole Churchill Kleinstreuer, NTP Interagency Center for the Evaluation of Alternative Toxicological Methods, NIEHS and Jessica A. Palmer, Stemina Biomarker Discovery, Inc*

9:05 AM–9:45 AM	<b>DNTS 29: Federal Agency Activities to Identify and Implement Alternatives</b> <i>Nicole Churchill Kleinstreuer, NTP Interagency Center for the Evaluation of Alternative Toxicological Methods, NIEHS</i>	
9:45 AM–10:25 AM	<b>DNTS 30: <i>In Vitro</i> to <i>In Vivo</i> Extrapolation Using Maternal-Fetal Models</b> <i>Annie Lumen, US Food and Drug Administration</i>	
10:25 AM–10:40 AM	Break (Harbor Island Foyer)	
10:40 AM–11:20 AM	<b>DNTS 31: Developing Screening Batteries and Compound Test Sets for Developmental Neurotoxicity Screening: International Efforts</b> <i>Timothy J. Shafer, US Environmental Protection Agency</i>	
11:20 AM–12:00 PM	<b>DNTS 32: Integrated Testing Strategies for Developmental Neurotoxicity Testing</b> <i>Mamta Behl, National Toxicology Program, NIEHS</i>	
<b>12:00 PM–1:30 PM</b>	<b>Lunch on Your Own</b>	
<b>1:30 PM–4:00 PM</b>	<b>DNTS Platform Session 2</b> <i>Chairperson: TBD</i>	<b>Harbor Island 1</b>
2:55 PM–3:10 PM	Break (Harbor Island Foyer)	
<b>4:00 PM-5:00 PM</b>	<b>DNTS Business Meeting</b>	<b>Harbor Island 1</b>
<b>5:30 PM – 9:00 PM</b>	<b>DNTS Social Event</b>	<b>Meet in Hotel Lobby</b>
<b><u>Wednesday, June 26, 2019</u></b>		
<b>7:00 AM–6:00 PM</b>	<b>Registration Open</b>	<b>Harbor Island Foyer</b>
<b>7:30 AM–8:00 AM</b>	<b>Morning Coffee and Pastries</b> (Joint with TS)	<b>Harbor Island Foyer</b>
<b>8:00 AM–8:30 AM</b>	<b>DNTS 39: TBA</b> <b>Richard Butcher New Investigator Award</b> <i><u>Presenting Author, Affiliation</u></i>	<b>Harbor Island 1</b>
<b>8:30 AM–9:45 AM</b>	<b>DNTS Mini-Symposium</b> <b>#TrendingTopics in Developmental Neurotoxicology</b> <i>Chairperson: TBA</i>	<b>Harbor Island 1</b>

8:30 AM-8:35 AM	<b>Introduction</b> <i>Presenter TBD</i>	
8:35 AM – 9:10 AM	<b>DNTS 40: SlinkR and Developmental Neurotoxicity</b> <i>Robert Tanguay, Oregon State University</i>	
9:10 AM – 9:45 AM	<b>DNTS 41: TBD</b> <i>Presenting Author, Affiliation</i>	
<b>9:45 AM – 12:00 PM</b>	<b>DNTS Platform Session 3</b> <i>Chairperson: TBD</i>	<b>Harbor Island 1</b>
10:30 AM–11:00 AM	Break: Warkany Tea (Harbor Island Foyer)	

**SAVE THE DATE: DNTS 2020 Meeting, June 28–July 1, 2020**  
 Charleston Marriott  
 170 Lockwood Boulevard  
 Charleston, SC  
 (Joint with The Teratology Society)