



Thirty-fifth annual meeting of the Neurobehavioral Teratology Society  
 Held in conjunction with the 51st Annual Meeting of the Teratology Society and the  
 24th Annual Meeting of the Organization of Teratology Information Specialists Loews  
 Coronado Bay Resort, Coronado, CA June 25–June 29, 2011

**2011 Richard Butcher New Investigator Award**

Paul Eubig (nominated by Susan Schantz)

University of Illinois at Urbana-Champaign

Impaired attention in attention deficit hyperactivity disorder compared with developmental lead or PCB Exposure

**NBTS Conference Awards**

Devon Graham (nominated by Charles Vorhees)

University of Cincinnati

Long-term receptor alterations from developmental methamphetamine exposure in rats by use of selective pharmacological agonists and antagonists

Tommy Saborido (nominated by Gregg Stanwood)

Vanderbilt University

Behavioral effects of 5-HT<sub>6</sub> receptor ligands and relationship to brain dopamine systems

Karla Sanchez-Huerta (nominated by Mary Gilbert)

Jorge Escuela Nacional de Ciencias Biológicas, IPN, Mexico

Hypothyroidism selectively affects the proliferation of cells in the hilus but not the subgranular zone of the dentate gyrus of adult rats

**Behavioral Toxicology Conference Award**

Ning Zhu (nominated by Diana Dow-Edwards)

SUNY Downstate Medical Center, Brooklyn, NY

The age-specific effects of methylphenidate on the radial arm maze task in periadolescent rats

**NBTS 2011 PROGRAM**

**Saturday, June 25, 2011**

8:00 a.m.–12:00 noon Teratology Society Education Course—*Commodore Ballroom E*  
 1:00 p.m.–5:00 p.m. Teratology Society/OTIS Joint Pregnancy Registry Workshop—*Constellation A*  
 12:00 p.m.–5:00 p.m. NBTS registration—*Constellation B Foyer*  
 1:00 p.m.–2:00 p.m. NBTS Public Affairs Committee meeting—*Lenore*  
 2:00 p.m.–3:00 p.m. NBTS Publications Committee meeting—*Lenore*  
 3:00 p.m.–6:00 p.m. NBTS Council meeting—*Lenore*  
 6:30 p.m.–9:00 p.m. NBTS Strategic Planning Committee—*Market Cafe*

**Sunday, June 26, 2011**

8:00 a.m.–5:00 p.m. NBTS registration—*Constellation B Foyer*  
 7:45 a.m.–8:15 a.m. Continental breakfast—*Constellation B*  
 8:15 a.m.–8:40 a.m. **President's welcome and official opening of 2011 NBTS meeting**—*Constellation B*  
 8:45 a.m.–9:45 a.m. NBTS 1: **Josef Warkany lecture (TS/NBTS)**—*Commodore Ballroom E*  
 A Tail of Mice and Men: Embryos and Ethanol  
 Kathleen Sulik  
 University of North Carolina, Chapel Hill, NC

- 10:00 a.m.–12:20 p.m. **Session 1: Behavioral Toxicology Symposium**  
Animal genetic models of human neurological and behavioral conditions  
Chairperson: Ginger Moser  
U.S. Environmental Protection Agency, RTP, NC
- 10:00 a.m.–10:35 a.m. NBTS 2: Mouse models of genetic and environmental factors in neurodevelopmental disorders  
Sheryl Moy  
University of North Carolina, Chapel Hill, NC
- 10:35 a.m.–11:10 a.m. NBTS 3: Talk title TBA  
Miklos Toth  
Weill Cornell Medical College, Cornell University, New York, NY
- 11:10 a.m.–11:45 a.m. NBTS 4: New tools for neurobehavioral toxicologists in the genomic era  
Mari Golub  
University of California Davis, Davis, CA
- 11:45 a.m.–12:20 p.m. NBTS 5: Behavioral phenotyping of mutant mouse models of neuropsychiatric disease: What we've learned from studies of sensorimotor gating deficits in schizophrenia  
Susan Powell  
University of California San Diego, San Diego, CA
- 12:20 p.m.–1:20 p.m. **Lunch (on your own)**
- 1:20 p.m.–3:00 p.m. **Session 2: NBTS platform presentations—Constellation B**  
Chairpersons: Frank Scalzo, *Bard College*; Paul Eubig, *University of Illinois at Urbana-Champaign*
- 1:20 p.m.–1:40 p.m. NBTS 6: Bioaccumulation of 2,2',4,4'-tetrabromodiphenylether (BDE47) in perinatally exposed C57BL/6 mice  
Claire Koenig, Yanping Lin, Jozsef Lango, Bruce Hammock, Issac Pessah, Robert Berman  
Center for Children's Environmental Health, University of California, Davis, Davis, CA
- 1:40 p.m.–2:00 p.m. NBTS 7: Persisting behavioral impairment in the novel tank diving task after embryonic exposure to diazinon in zebrafish  
Edward Levin, Jerry Yes, Daniel Cerutti, Sue Donerly, Elwood Linney  
Duke University Medical Center, Durham, NC
- 2:00 p.m.–2:20 p.m. NBTS 8: Age-related differences in neurotoxicity produced by organophosphorus and n-methyl carbamate pesticides  
Ginger Moser  
U.S. Environmental Protection Agency, RTP, NC
- 2:20 p.m.–2:40 p.m. NBTS 9: Developmental bisphenol A (BPA) or ethinyl estradiol treatment at relatively low doses has no effects on early preweaning behaviors  
Sherry Ferguson, Charles Law, Jordan Abshire  
Division of Neurotoxicology, National Center for Toxicological Research, FDA, Jefferson, AR
- 2:40 p.m.–3:00 p.m. NBTS 10: AhrdCyp1a2 (–/–) mice show increased susceptibility to PCB-induced developmental neurotoxicity using tests of spatial and non-spatial learning and memory  
Christine Curran, Rikki Floyd, Andrea Mynhler, Emily Allenhofen, Celestine Kamau-Cheggeh, Amber Evans, Ashton Samuels, Sarah Kraemer, Breann Hays  
Northern Kentucky University, Highland Heights, KY
- 3:00 p.m.–3:20 p.m. **Break**
- 3:20 p.m.–5:00 p.m. **Session 3: NBTS platform presentations—Constellation B**  
Chairpersons: Ed Levin, *Duke University*; Laura Pickens, *University of Nebraska*
- 3:20 p.m.–3:40 p.m. NBTS 11: Prenatal tetrahydrocannabinol (THC) alters components of executive function into adulthood of the rat  
Diana Dow-Edwards, Ning Zhao, Suzanna Popp, Lindsay Silva  
State University of New York, Downstate Medical Center, Brooklyn, NY
- 3:40 p.m.–4:00 p.m. **NBTS Conference Award Recipient**  
NBTS 12: Long-term receptor alterations from developmental methamphetamine exposure in rats by use of selective pharmacological agonists and antagonists  
Devon Graham<sup>1,2</sup>, Robyn Amos-Kroohs<sup>1,2</sup>, Amanda Braun<sup>1,2</sup>, Curtis Grace<sup>1,2</sup>, Tori Schaefer<sup>1,2</sup>, Matthew Skelton<sup>1,2</sup>, Michael Williams<sup>1,2</sup>, Charles Vorhees<sup>1,2</sup>  
<sup>1</sup>Neurology, Cincinnati Children's Research Foundation, Cincinnati, OH; <sup>2</sup>Pediatrics, University of Cincinnati, Cincinnati, OH
- 4:00 p.m.–4:20 p.m. NBTS 13: Age-related changes in prenatal cocaine and/or nicotine induced depression and anxiety in offspring  
Sonya Sobrian<sup>1</sup>, Katherine Ressman<sup>1</sup>, Lara Marr<sup>1</sup>, Robert Holson<sup>2</sup>  
<sup>1</sup>Howard University College of Medicine, Washington, DC; <sup>2</sup>New Mexico Tech, Socorro, NM
- 4:20 p.m.–4:40 p.m. **NBTS Conference Award Recipient**  
NBTS 14: Behavioral effects of 5-HT<sub>6</sub> receptor ligands and relationship to brain dopamine systems  
Tommy Saborido, Rebecca Bluett, Daniel Bermingham, Catherine Killinger, Heather Durai, Gregg Stanwood  
Vanderbilt University School of Medicine, Nashville, TN
- 4:40 p.m.–5:00 p.m. NBTS 15: Differences in brain activation during a novel fMRI task in prenatally cocaine-exposed adolescents  
Sonia Minnes<sup>1</sup>, Jean Tkach<sup>2</sup>, Lynn Singer<sup>1</sup>, Paul Weishampel<sup>1</sup>, Jack Jesberger<sup>1</sup>, Matthew Stokes<sup>1</sup>  
<sup>1</sup>Case Western Reserve University, Cleveland, OH; <sup>2</sup>University of Cincinnati, Cincinnati, OH

- 6:00 p.m.–8:00 p.m. **TS/NBTS joint welcome reception and silent auction**  
Exhibits open—*Commodore Ballroom C*
- Monday, June 27, 2011**
- 8:00 a.m.–5:00 p.m. NBTS registration—*Constellation B Foyer*
- 7:45 a.m.–8:15 a.m. Continental breakfast—*Constellation B*
- 8:15 a.m.–9:00 a.m. **Session 4: Elsevier distinguished lecture—*Constellation B***  
Tipping the balance of neural networks: Environmental chemicals and autism risk  
Isaac Pessah  
University of California Davis, Davis, CA
- 9:00 a.m.–12:00 noon **Session 5: NBTS/OTIS/TS joint symposium—*Commodore Ballroom E***  
Attention deficit hyperactivity disorder: The role of prenatal and postnatal environment  
Chairpersons: Susan Schantz, University of Illinois at Urbana-Champaign, Urbana, IL and Asher Ornoy, Hebrew University Hadassah Medical School, Jerusalem, Israel
- 9:00 a.m.–9:15 a.m. NBTS 16: Introduction  
James McGough  
David Geffen School of Medicine, UCLA, Los Angeles, CA
- 9:15 a.m.–10:00 a.m. NBTS 17: Prenatal cigarette smoke exposure and effects on offspring attention, activity, and ADHD: An update  
Marie Cornelius  
University of Pittsburgh School of Medicine, Pittsburgh, PA
- 10:00 a.m.–10:45 a.m. NBTS 18: Attention deficit disorder (ADHD): The impact of intrauterine exposure to opiates and other substances of abuse  
Asher Ornoy  
Hebrew University Hadassah Medical School, Jerusalem, Israel
- 10:45 a.m.–11:00 a.m. **Break**
- 11:00 a.m.–11:45 a.m. NBTS 19: The role of environmental contaminants in ADHD  
Kimberley Yolton  
Cincinnati Children's Hospital Medical Center, Cincinnati, OH
- 11:45 a.m.–12:00 noon Summary and conclusions  
Susan Schantz  
University of Illinois at Urbana-Champaign, Urbana, IL
- 12:00 noon–1:40 p.m. **Annual NBTS business meeting (and buffet lunch)—*Constellation B***
- 1:40 p.m.–3:00 p.m. **Session 6: NBTS platform presentations—*Constellation B***  
Chairpersons: Kimberly Grant, *University of Washington*; Devon Graham, *Vanderbilt University*
- 1:40 p.m.–2:00 p.m. **2011 Richard Butcher New Investigator Award Recipient**  
NBTS 20: Impaired attention in attention deficit hyperactivity disorder compared with developmental lead or PCB exposure  
Paul Eubig, Andrea Aguiar, Susan Schantz  
University of Illinois at Urbana-Champaign, Urbana, IL
- 2:00 p.m.–2:20 p.m. **NBTS Conference Award Recipient**  
NBTS 21: The age-specific effects of methylphenidate on the radial arm maze task in periadolescent rats  
Ning Zhu, Diana Dow-Edwards  
SUNY Downstate Medical Center, Brooklyn, NY
- 2:20 p.m.–2:40 p.m. NBTS 22: Embryonic methylphenidate exposure in zebrafish: Short-term neurochemical effects and persisting behavioral consequences  
Edward Levin, Damiyon Sledge, Sue Donerly, Ann Petro, Jerry Yen, Stephanie Roach, Elwood Linney  
Duke University Medical Center, Durham, NC
- 2:40 p.m.–3:00 p.m. NBTS 23: Prenatal cigarette smoke exposure causes gender-specific neurobehavioral alterations reminiscent of ADHD with increased aggression  
Carrie Yochum<sup>1</sup>, Carol Hoffman<sup>2</sup>, Judith Zelikoff<sup>2</sup>, Jason Richardson<sup>1</sup>  
<sup>1</sup>Environmental and Occupational Health Sciences Institute, Piscataway NJ; <sup>2</sup>Nelson Institute of Environmental Medicine, Tuxedo, NY
- 3:00 p.m.–3:20 p.m. **Break**
- 3:20 p.m.–4:40 p.m. **Session 7: NBTS platform presentations—*Constellation B***  
Chairpersons: Mary Gilbert, *US EPA*; Aliya Frederickson, *Vanderbilt University*
- 3:20 p.m.–3:40 p.m. NBTS 24: Discrimination reversal learning in infant primates exposed to low-dose thimersol: A pilot study  
Laura Hewitson<sup>1,2</sup>, Lisa Houser<sup>2</sup>, Amanda Dettmer<sup>2</sup>, Gene Sackett<sup>3</sup>  
<sup>1</sup>JCCHD, Austin, TX; <sup>2</sup>University of Pittsburgh, Pittsburgh, PA; <sup>3</sup>Washington National Primate Research Center/University of Washington, Seattle, WA
- 3:40 p.m.–4:00 p.m. NBTS 25: Social-emotional characteristics of rhesus monkey infants as influenced by prenatal iron deficiency and MAOA genotype  
Mari Golub, Casey Hogrefe  
University of California Davis, Davis, CA

- 4:00 p.m.–4:20 p.m. NBTS 26: Avian models for neurobehavioral teratogenicity and its reversal by stem cell transplantation  
Joseph Yanai<sup>1</sup>, Adi Pinkas<sup>1</sup>, Theodore A. Slotkin<sup>2</sup>, Gadi Turgeman<sup>3</sup>  
<sup>1</sup>The Ross Laboratory for Studies in Neural Birth Defects, Department of Medical Neurobiology, IMRIC, The Hebrew University-Hadassah Medical School, Jerusalem, Israel; <sup>2</sup>Department of Pharmacology and Cancer Biology, Duke University Medical Center, Durham, NC; <sup>3</sup>Department of Molecular Biology, Ariel University Center of Samaria, Ariel, Israel
- 4:20 p.m.–4:40 p.m. NBTS 27: Hair cortisol as a novel biomarker of stress  
Jerrold Meyer, Melinda Novak  
University of Massachusetts, Amherst, MA
- 5:30 p.m.–7:30 p.m. **Joint poster session I (NBTS/TS/OTIS)**—*Commodore Ballroom C*  
(Posters set up at 11:45 a.m.; attended 5:30 p.m.–7:30 p.m.)
- 7:30 p.m.–9:30 p.m. MARTA student career event—*Cambria*
- Tuesday, June 28, 2011**
- 8:00 a.m.–5:00 p.m. NBTS registration—*Constellation B Foyer*
- 7:45 a.m.–8:15 a.m. Continental breakfast—*Constellation B*
- 8:15 a.m.–9:15 a.m. **Session 8: State of the science lecture**—*Constellation B*  
William Slikker  
U.S. Food and Drug Administration, National Center for Toxicological Research, Jefferson, AR
- 9:15 a.m.–10:00 a.m. **Session 9: Special presentation—perspectives on advocacy for children's neurological health**—*Constellation B*  
Elise Miller<sup>1</sup>, Sheila Kaplan<sup>2</sup>  
<sup>1</sup>Collaborative on Health and the Environment, Freeland, WA; <sup>2</sup>Nation Institute, New York, NY
- 10:00 a.m.–12:55 p.m. **Session 10: NBTS/TS joint symposium**—*Commodore Ballroom E*  
The thyroid and iodine: Impacts on pregnancy and child health  
Chairpersons: Gloria Jahnke, National Institutes of Environmental Health Sciences, RTP, NC and Susan Makris, U.S. Environmental Protection Agency, Washington, DC
- 10:00 a.m.–10:10 a.m. Overview of issues  
Gloria Jahnke  
National Institutes of Environmental Health Sciences, RTP, NC
- 10:10 a.m.–10:40 a.m. NBTS 28: Are we having an iodine crisis? current issues of iodine sufficiency and maternal–fetal health  
Offie Soldin  
Georgetown University Medical Center, Washington, DC
- 10:40 a.m.–11:10 a.m. NBTS 29: Thyroid function and clinical hypothyroidism from a clinician's perspective  
Alex Stagnaro-Green  
George Washington University, Washington, DC
- 11:10 a.m.–11:25 a.m. **Break**
- 11:25 a.m.–11:55 a.m. NBTS 30: Neurodevelopmental consequences of low-level thyroid hormone disruption induced by environmental contaminants  
Mary Gilbert  
U.S. Environmental Protection Agency, RTP, NC
- 11:55 a.m.–12:25 p.m. NBTS 31: Neurobehavioral effects of hypothyroidism in children from antenatal and childhood exposure  
Joann Rovet  
Sick Children's Hospital, Toronto, Ontario
- 12:25 p.m.–12:55 p.m. Discussion: Where do we go from here?  
Session speakers
- 12:55 p.m.–2:00 p.m. **Lunch (on your own)**
- 2:00 p.m.–6:00 p.m. **Session 11: Symposium**—*Constellation B*  
Gender differences and mechanisms of prenatal and adolescent effects of cocaine on brain and behavior: New developments  
Chairperson: Charles Vorhees  
Cincinnati Children's Research Foundation, Cincinnati, OH
- 2:00 p.m.–2:10 p.m. Introduction  
Charles Vorhees  
Cincinnati Children's Research Foundation, Cincinnati, OH
- 2:10 p.m.–2:40 p.m. NBTS 32: Prenatal cocaine exposure and embryonic cortical development  
Pradeep Bhide  
Harvard Medical School, Boston, MA
- 2:40 p.m.–3:10 p.m. NBTS 33: Dopaminergic regulation of brain architecture, pharmacological responsiveness, and behavior: Long-lasting neuromaladaptions following *in utero* cocaine  
Gregg Stanwood  
Vanderbilt University, Nashville, TN
- 3:10 p.m.–3:40 p.m. NBTS 34: Sex differences in the response to environmental manipulation on drug reward in adolescence following prenatal cocaine exposure in the rat  
Diana Dow-Edwards  
SUNY Downstate Medical Center, Brooklyn, NY
- 3:40 p.m.–4:00 p.m. **Break**
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4:00 p.m.–4:30 p.m.	NBTS 35: Sex differences in long-term outcomes of <i>in utero</i> cocaine in a high-risk urban cohort Emmalee Bandstra University of Miami School of Medicine, Miami, FL
4:30 p.m.–5:00 p.m.	NBTS 36: Sex differences in the effects of social isolation on the behavioral and neurochemical responses to drug reward Sari Izenwasser University of Miami, Miami, FL
5:00 p.m.–5:30 p.m.	NBTS 37: Role of individual and developmental differences in voluntary drug taking Nicole Schramm-Saptya Duke University Medical Center, Durham, NC
5:30 p.m.–6:00 p.m.	Synthesis, general discussion, and next steps Charles Vorhees Cincinnati Children's Research Foundation, Cincinnati, OH
6:30 p.m.–9:00 p.m.	<b>NBTS Social Event, Bay Terrace (light food, cash bar)</b>
<b>Wednesday, June 29, 2011</b>	
7:45 a.m.–8:15 a.m.	Continental breakfast— <i>Constellation B</i>
8:30 a.m.–12:00 p.m.	<b>Session 12: Symposium—Constellation B</b> Advances in developmental neurotoxicity risk assessment Chairperson: Susan Makris U.S. Environmental Protection Agency, National Center for Environmental Assessment, Washington, DC
8:30 a.m.–9:10 a.m.	NBTS 38: Evaluation of developmental neurotoxicity for environmental chemicals in the OECD/EPA extended one-generation reproductive toxicology study (EOGRTS) Larry Sheets Bayer CropScience, RTP, NC
9:10 a.m.–9:50 a.m.	NBTS 39: Next generation risk assessment and developmental neurotoxicity: Potential and challenges in evaluation of the thyroid toxicity pathway Kathleen Raffaele U.S. Environmental Protection Agency, Washington, DC
9:50 a.m.–10:20 a.m.	NBTS 40: The potential contribution of advanced imaging techniques to developmental neurotoxicity risk assessment Karl Jensen U.S. Environmental Protection Agency, RTP, NC
10:20 a.m.–10:50 a.m.	<b>Break</b>
10:50 a.m.–11:20 a.m.	NBTS 41: Nonclinical testing for pediatric neuropharmaceuticals: A CDER perspective Ikram Elayan U.S. Food and Drug Administration, Center for Drug Evaluation and Research, Washington, DC
11:20 a.m.–12:00 noon	NBTS 42: Preclinical Neurotoxicity Assessments of Pediatric Anesthetics: Translational approaches using a nonhuman primate model Merle Paule U.S. Food and Drug Administration, National Center for Toxicological Research, Jefferson, AR
12:00 noon	<b>NBTS 2011 formally adjourned</b>

**NBTS posters**

NBTS P1	The effects of stimulant medication on performance of an incremental repeated acquisition task in children with ADHD John Chelonis <sup>1,2</sup> , Brian Kubacak <sup>2</sup> , Seth Osborn <sup>2</sup> , Mark Edwards <sup>2</sup> , Ronald Baldwin <sup>2</sup> , Merle Paule <sup>1,2</sup> , <sup>1</sup> National Center for Toxicological Research, Jefferson, AR, <sup>2</sup> University of Arkansas for Medical Sciences-Arkansas Children's Hospital, Little Rock, AR
NBTS P2	Prenatal nicotine exposure mouse model of ADHD Jinmin Zhu <sup>1</sup> , Thomas Spencer <sup>2</sup> , Joseph Biederman <sup>2</sup> , Pradeep Bhide <sup>1</sup> , <sup>1</sup> Neuroscience Center and Department of Neurology, Massachusetts General Hospital, Boston, MA, <sup>2</sup> Pediatric Psychopharmacology, Department of Psychiatry, Massachusetts General Hospital, Boston, MA
NBTS P3	Dose-dependent effects of adolescent nicotine exposure on cognition in the adult female rat Laura Pickens <sup>1</sup> , James Rowan <sup>2</sup> , Rick Bevins <sup>3</sup> , Stephen Fountain <sup>1</sup> , <sup>1</sup> Kent State University, Kent, OH, <sup>2</sup> Wesleyan College, Macon, GA, USA, <sup>3</sup> University of Nebraska Lincoln, Lincoln, NE
NBTS P4	EPA research on health effects of biofuels: Studies with inhaled ethanol in rats Philip Bushnell, Tracey Beasley, William Boyes, Hisham El-Masri, Paul Evansky, Jermaine Ford, Mary Gilbert, David Herr, William LeFew, Sheppard Martin, Kathy McDaniel, Eva McLanahan, Denise MacMillan, Ginger Moser, Wendy Oshiro, U.S. Environmental Protection Agency, Research Triangle Park, NC
NBTS P5	latent effects of <i>in utero</i> methanol exposure on gonadal and gamete morphometrics function of adult <i>macaca fascicularis</i> Eliza Curnow <sup>1</sup> , Eric Hayes <sup>1</sup> , Kimberly Grant <sup>2,3</sup> , Noelle Liberato <sup>1,2</sup> , Thomas Burbacher <sup>1,2,3</sup> , <sup>1</sup> Washington National Primate Research Center, University of Washington, Seattle, WA, <sup>2</sup> Center on Human Development and Disability, University of Washington, Seattle, WA, <sup>3</sup> Department of Environmental and Occupational Health Sciences, School of Public Health and Community Medicine, University of Washington, Seattle, WA
NBTS P6	The effects of developmental bisphenol A exposure in mice on alternation behavior and working memory Melissa Ward, Jenna Nelms, Mellessa Miller, Abby Meyer, Cameron Watson, Guy Mittleman, Helen Sable, Department of Psychology, University of Memphis, Memphis, TN

- NBTS P7 Anxiety- and depressive-like behaviors in CD-1 mice developmentally exposed to bisphenol A  
Jenna Nelms, Melissa Ward, Abby Meyer, Mellessa Miller, Helen Sable, *Department of Psychology, University of Memphis, Memphis, TN*
- NBTS P8 Differing effects of 3 organophosphates (chlorpyrifos, diazinon and parathion) on developing zebrafish nervous system  
Jerry Yen, Sue Donerly, Ed Levin, Elwood Linney, *Duke University, Durham, NC*
- NBTS P9 Amantadine-induced structural and motor effects in developing zebrafish  
Frank Scalzo, Matthew Boisvert, Weiqing Wang, *Bard College, Annandale-on-Hudson, NY*
- NBTS P10 **NBTS Conference Award Recipient**  
Hypothyroidism selectively affects the proliferation of cells in the hilus but not the subgranular zone of the dentate gyrus of adult rats  
Karla Sanchez<sup>1</sup>, Paula Vergara<sup>2</sup>, Jose Segovia<sup>2</sup>, Jorge Pacheco<sup>1</sup>, *<sup>1</sup>Departamento de Fisiología, Escuela Nacional de Ciencias Biológicas, IPN, Mexico DF., Mexico, <sup>2</sup>Departamento de Farmacología, Centro de Investigación y de Estudios Avanzados del IPN, Mexico DF., Mexico*
- NBTS P11 Potential dopamine D1 receptor signaling through gaq: Behavioral and biochemical assessment  
Aliya Frederick<sup>1</sup>, Tommy Saborido<sup>2</sup>, Anthony Baucum<sup>3</sup>, Roger Colbran<sup>3,4</sup>, Gregg Stanwood<sup>2,4</sup>, *<sup>1</sup>Neuroscience Graduate Program, Nashville, TN, <sup>2</sup>Department of Pharmacology, Nashville, TN, <sup>3</sup>Department of Molecular Physiology and Biophysics, Nashville, TN, <sup>4</sup>Vanderbilt Kennedy Center for Research on Human Development, Nashville, TN*
- NBTS P12 Advancing early identification of birth defects and neurobehavioral disabilities: Collaborative studies at the Pacific Northwest Center for the National Children's Study  
Elaine Faustman<sup>1</sup>, Thomas Burbacher<sup>1</sup>, Shirley Beresford<sup>2</sup>, Kimberly Grant<sup>1</sup>, Wendy Stone<sup>3</sup>, Susan Astley<sup>2</sup>, Susan Spieker<sup>4</sup>, Nicole Cederblom<sup>1</sup>, Linda Shih<sup>1</sup>, Lisa Younglove<sup>1</sup>, *<sup>1</sup>Department of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, <sup>2</sup>Department of Epidemiology, University of Washington, Seattle, WA, <sup>3</sup>Department of Psychology, University of Washington, Seattle, WA, <sup>4</sup>Department of Family and Child Nursing, University of Washington, Seattle, WA*
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