



Twenty-ninth Annual Meeting of the Neurobehavioral Teratology Society  
and Twenty-fourth Annual Meeting of the Behavioral Toxicology Society  
in conjunction with the Forty-fifth Annual Meeting of the  
Teratology Society

The Trade Winds Grand Island Resort  
St. Pete Beach Florida  
June 25–28, 2005

**PROGRAM**

**Saturday, June 25, 2005**

- 9:00 a.m.–11:30 a.m.    BTS Platform Sessions
- 1:00 p.m.–8:00 p.m.    NBTS Registration  
**GRAND PALM COLONNADE—EAST SIDE**
- 1:00 p.m.–2:30 p.m.    NBTS Publications Committee Meeting  
**Snow Egret Room**
- 1:30 p.m.–2:30 p.m.    NBTS Public Affairs Committee Meeting  
**Compass Room**
- 2:30 p.m.–5:30 p.m.    NBTS Council Meeting  
**Royal Tern Room**
- 6:00 p.m.–9:00 p.m.    **NBTS/BTS Joint Symposium—Zebrafish models of neurobehavioral toxicity**  
Sponsored in part by US EPA  
Chairs—Frank Scalzo and Ed Levin  
**INDIAN KEY AND BIRD KEY ROOMS**
- 6:00 p.m.–6:25 p.m.    **NBTS 1/BTS 1. Zebrafish as a neurotoxicological and neurobehavioral model.** LINNEY, E.  
Duke University Medical Center, Durham, N.C.
- 6:25 p.m.–6:50 p.m.    **NBTS 2/BTS 2. Molecular analysis of the zebrafish visual system.** FADOOL, J. Florida State  
University, Tallahassee, FL
- 6:50 p.m.–7:20 p.m.    **NBTS 3/BTS 3. Zebrafish: A tool for studying behavioral effects and mechanistic action of  
algal toxins.** LEFEBVRE, K. National Oceanic and Atmospheric Administration, Seattle, WA.
- 7:20 p.m.–7:35 p.m.    Break

- 7:35 p.m.–8:00 p.m. **NBTS 4/BTS 4. Characterization of developmental toxicity of algal toxins after microinjection of fish embryos.** RAMSDELL, J. National Oceanic and Atmospheric Administration, Charleston, S.C.
- 8:00 p.m.–8:25 p.m. **NBTS 5/BTS 5. Neurobehavioral effects of stressors in embryonic zebrafish.** SCALZO, F.M. Bard College, Annandale-on-Hudson, N.Y.
- 8:25 p.m.–8:50 p.m. **NBTS 6/BTS 6. Zebrafish choice behavior: sensitivity to pharmacological and toxicological challenge.** LEVIN, E.D. Duke University Medical Center, Durham, N.C.
- 8:50 p.m.–9:00 p.m. Discussion

**Sunday, June 26, 2005**

- 8:30 a.m.–5:00 p.m. **NBTS Registration**  
**GRAND PALM COLONNADE—EAST SIDE**
- 9:00 a.m.–12:00 p.m. **NBTS Symposium**  
**Adolescence: Drugs and Behavior**  
Chair—Diana Dow-Edwards  
**INDIAN KEY AND BIRD KEY ROOMS**
- 9:00 a.m.–9:05 a.m. **Introduction.** DIANA DOW-EDWARDS, SUNY Downstate, New York, NY.
- 9:05 a.m.–9:40 a.m. **NBTS 7. Imaging the Ontogeny of Self-Regulatory Control.** PETERSON, B.S.\* Department of Psychiatry, Columbia University, and the New York State Psychiatric Institute, New York, N.Y.
- 9:40 a.m.–10:15 a.m. **NBTS 8. Binge alcohol exposure during adolescence produces behavioral, electro-physiological and biochemical adaptations in hippocampus.** MATTHEWS, D.B.\*, J.M. SILVERS\*, S. TOKUNAGA\* and A.L. MORROW\* Department of Psychology, University of Memphis, Memphis Tennessee and University of North Carolina, Chapel Hill, N.C.
- 10:15 a.m.–10:30 am Break
- 10:30 a.m.–11:05 a.m. **NBTS 9. Cannabinoid/psychostimulant interactions in adolescent vs adult rats** IZENWASSER, S.\* Dept. of Psychiatry and Behavioral Sciences, Univ. Miami School of Medicine, Miami, FL.
- 11:05 a.m.–11:40 a.m. **NBTS 10. Repeated exposure to low dose methylphenidate during adolescence enhances spatial working memory.** DOW-EDWARDS D., M. LENDERMAN\*, L. GRULLON\*, A. JACKSON\*, and S. STEPHENSON\* Department of Physiology/Pharmacology, SUNY Downstate, Brooklyn, N.Y.
- 11:40 a.m.–12:00 p.m. Discussion
- 12:00 p.m.–1:00 p.m. Lunch
- 1:00 p.m.–2:00 p.m. **NBTS 11/BTS 7 Charles River Distinguished Speaker**  
Assessment of cognitive function: bridging the gap from preclinical animal studies to the human condition. SNYDER, P.J., Pfizer, Groton, CT  
**TARPON/SAWYER ROOM**
- 2:00 p.m.–5:00 p.m. **Joint NBTS/BTS/TS Symposium: Cognitive Testing and Neurodevelopment**  
Chairs—Frank Scalzo and Robert Parker  
**TARPON/SAWYER ROOM**
- 2:00 p.m.–2:40 p.m. **NBTS 12. Use of identical behavioral tasks in children and laboratory animals for studying chemical effects on a variety of cognitive functions.** PAULE, M.G. Behavioral Toxicology Laboratories, Division of Neurotoxicology, FDA's National Center for Toxicological Research (NCTR), Jefferson, AR.

- 2:40 p.m.–3:20 p.m. **NBTS 13. Cognitive testing in infant monkeys: responding to biomedical and public health concerns.** GOLUB, M.S. California National Primate Research Center, Davis, CA.
- 3:20 p. m.–3:40 p.m. Break
- 3:40 p.m.–4:20 p.m. **NBTS 14. Path integration versus spatial learning: what does the Cincinnati water maze (CWM) measure?** VORHEES, C.V., C. PU\*, M. FUKUMURA\*, and M.T. WILLIAMS\*. Div. of Neurology, Cincinnati Children's Research Foundation and Univ. of Cincinnati, Cincinnati, OH.
- 4:20 p.m.–5:00 p.m. **NBTS 15. Adaptation to change as an index of cognitive function.** WEISS, B. Department of Environmental Medicine, University of Rochester School of Medicine and Dentistry, Rochester N.Y.
- 6:15 p.m.–7:45 p.m. **Welcoming Reception (TS/NBTS/OTIS) and Exhibits Open  
Jacaranda Hall**

**Monday, June 27, 2005**

- 8:00 a.m.–4:00 p.m. NBTS Registration  
**GRAND PALM COLONNADE—EAST SIDE**
- 8:10 a.m.–9:00 a.m. **The Josef Warkany Lecture (joint with Teratology Society)  
Tarpon/Sawyer Room**
- 9:00 a.m.–9:30 a.m. **The James G. Wilson Publication Award Presentation and Address (joint with Teratology Society)  
Tarpon/Sawyer Room**
- 9:30 a.m.–9:45 a.m. Break
- 9:45 a.m.–11:45 a.m. **NBTS Platform Session I  
INDIAN KEY AND BIRD KEY ROOMS**  
Chair—Susan Robinson
- 9:45 a.m.–10:05 a.m. **NBTS 16. Cigarette's impact on cognitive performance in young adults following control for pre-smoking abilities.** FRIED, P.A. and R. GRAY\*. Carleton University, Ottawa, Ontario, Canada.
- 10:05 a.m.–10:25 a.m. **NBTS 17. Perinatal Nicotine Exposure Affects Nicotine-stimulated Rubidium Efflux.** BRITTON, A.F.\*, R.E. VANN\*, and S.E. ROBINSON. Department of Pharmacology and Toxicology, Virginia Commonwealth University, Richmond, VA.
- 10:25 a.m.–10:45 a.m. **NBTS 18. Prenatal cocaine and/or nicotine alters life span in laboratory rats in a sex-dependent manner.** SOBRIAN, S.K., E. CLARK, Jr., K. RESSMAN\*, L. MARR\*, and S.T. GERALD. Department of Pharmacology, Howard University College of Medicine, Washington, D.C.
- 10:45 a.m.–11:05 a.m. **NBTS 19. Assessment of selective attention and error reactivity in *fmr1* knockout (KO) mice: A mouse model of Fragile X Syndrome (FXS).** STRUPP, B.J., J. MOON\*, A. BEAUDIN\*, S. VEROSKY\*, L.L. DRISCOLL, L.S. CRNIC, and D.A. LEVITSKY\*. Cornell Univ., Ithaca, N.Y., and Univ. Colorado Health Sci. Ctr., Denver, CO.
- Travel Award Recipient
- 11:05 a.m.–11:25 a.m. **NBTS 20. Prenatal folate deficiency in mice increases adult anxiety levels.** BERRY, K.<sup>1</sup>, S.A. FERGUSON<sup>1</sup>, D.K. HANSEN<sup>1,\*</sup>, A.C. ANTONY<sup>2,3,\*</sup>, K.S. WALL<sup>1,\*</sup>, G. WHITE<sup>1,4,\*</sup> <sup>1</sup>National Center for Toxicological Research, <sup>2</sup>Indiana University School of Medicine, <sup>3</sup>Richard L. Roudebush Veterans Affairs Medical Center, <sup>4</sup>Toxicological Pathology Associates, Jefferson, AR.

- 11:25 a.m.–11:45 a.m. **NBTS 21. Rodent strain differences in performance of operant tasks measuring time estimation and impulsivity.** FERGUSON, S.A., M.G. PAULE, A. CADA, C.M. FOGLE, and E.P. GRAY. Division of Neurotoxicology, NCTR/FDA, Jefferson, AR.
- 11:45 a.m.–1:00 p.m. Lunch
- 11:45 a.m.–7:30 p.m. Posters and Exhibits Open  
(Posters set-up 11:45 a.m.–7:30 p.m. and attended 5:30 p.m.–7:30 p.m.)  
**Jacaranda Hall**
- 1:00 p.m.–3:30 p.m. **NBTS/TS/BTS ILSI SYMPOSIUM**  
**An Evaluation and Interpretation of Neurodevelopmental Endpoints for Human Health Risk Assessment**  
Supported in part by ILSI.  
Isabel Walls (organizer) and Steve Brimijoin co-chairs  
**Tarpon/Sawyer Room**
- 1:00 p.m.–1:10 p.m. **NBTS 22. An Evaluation and Interpretation of Neurodevelopmental Endpoints for Human Health Risk Assessment—Introductory Remarks.** WALLS, I.\*<sup>1</sup> and S. BRIMIJOIN.\*<sup>2</sup> <sup>1</sup>ILSI Risk Science Institute, Washington DC; <sup>2</sup>Mayo Clinic, Rochester, MN.
- 1:10 p.m.–1:35 p.m. **NBTS 23. Application of Developmental Neurotoxicity Testing to Public Health Protection.** FENNER-CRISP, P.\*<sup>1</sup>, J. ADAMS<sup>2</sup>, J. BALBUS\*<sup>3</sup>, D. BELLINGER<sup>4</sup>, S. BRIMIJOIN<sup>5</sup>, S. MAKRIS<sup>6</sup>, T. MARRS\*<sup>7</sup>, and D. RAY\*<sup>8</sup>. <sup>1</sup>Consultant, ILSI Risk Science Institute, Charlottesville, VA; <sup>2</sup> University of Massachusetts, Boston, MA; <sup>3</sup> Environmental Defense, Washington, DC; <sup>4</sup> Harvard University, Boston, MA <sup>5</sup>Mayo Clinic, Rochester, MN; <sup>6</sup> NCEA, ORD, USEPA, Washington, DC; <sup>7</sup> UK Food Standards Agency, London, UK; <sup>8</sup> University of Nottingham, Nottingham, UK.
- 1:35 p.m.–2:00 p.m. **NBTS 24. Undertaking Positive Control Studies as Part of Developmental Neurotoxicity Testing.** CROFTON, K.M.<sup>1</sup>, J.A. FOSS<sup>2</sup>, U. HASS<sup>3</sup>, K. JENSEN<sup>1</sup>, E.D. LEVIN<sup>4</sup>, S.L. PARKER<sup>5</sup> <sup>1</sup>Neurotoxicology, NHEERL, ORD, USEPA, RTP, NC; <sup>2</sup>CR-DDS Argus Division, Horsham, PA; <sup>3</sup>Danish Institute for Food and Veterinary Research, Soborg, Denmark; <sup>4</sup>Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, NC, <sup>5</sup>OrbusMedical Technologies, Fort Lauderdale, FL
- 2:00 p.m.–2:25 p.m. **NBTS 25. Identification and Interpretation of Treatment-Related Effects in Developmental Neurotoxicity (DNT) Testing.** TYL, R.W.,<sup>1</sup> S. BRIMIJOIN\*<sup>2</sup>, A. MORETTO<sup>3</sup>, L. SHEETS<sup>4</sup>, T. SOBOTKA<sup>5</sup>, and E. MENDEZ.<sup>6</sup> <sup>1</sup>RTI, Research Triangle Park, NC., <sup>2</sup>Mayo Clinic, Rochester, MN, <sup>3</sup>University of Padua, Italy; <sup>4</sup>Bayer CropScience, Stilwell KS; <sup>5</sup>FDA CFSAN, Laurel MD; <sup>6</sup>US EPA, OPP, Arlington, VA.
- 2:25 p.m.–2:40 p.m. Break
- 2:40 p.m.–3:05 p.m. **NBTS 26. Framework for Determining Normal Variability for Endpoints Measured in a Developmental Neurotoxicity Test.** Raffaele, K.C.\*<sup>1</sup>, E. Fisher<sup>2</sup>, S. Hancock<sup>3</sup>, K.P. Hazelden<sup>4</sup>, and S.K. Sobrian<sup>5</sup>. <sup>1</sup>HED, OPP, US EPA, Washington DC, <sup>2</sup>DNDP, CDER, FDA, Rockville, MD, <sup>3</sup>Health Canada, Ottawa, Canada, <sup>4</sup>Huntingdon Life Sciences, East Millstone, NJ, USA, <sup>5</sup>Howard University College of Medicine, Washington D.C.
- 3:05 p.m.–3:30 p.m. **NBTS 27. Statistical Issues and Techniques Appropriate for Developmental Neurotoxicity (DNT) Testing.** HOLSON, R.R.<sup>1</sup>, L.L. FRESHWATER\*<sup>2</sup>, J.P. MAURISSEN<sup>3</sup>, V.C. MOSER<sup>4</sup>, and W. PHANG\*<sup>5</sup>. <sup>1</sup>New Mexico Tech, Socorro, NM; <sup>2</sup>BioSTAT Consultants, Portage, MI; <sup>3</sup>The Dow Chemical Company, Midland, MI; <sup>4</sup>NTD, NHEERL, USEPA, Research Triangle Park, N.C.; <sup>5</sup>OPP/OPPTS, USEPA, Washington, D.C.

- 3:30 p.m.–5:30 p.m. NBTS BUSINESS MEETING  
**INDIAN KEY AND BIRD KEY ROOMS**
- 5:30 p.m.–7:30 p.m. **NBTS/TS/OTIS Poster Session I and Exhibits Open**  
**Jacaranda Hall**  
Chair—Jacques Maurissen
- 7:30 p.m.–10:30 p.m. MARTA/MTA Student Career Event

**NBTS 28. Toxicity test validation, positive controls and proficiency: are chemicals necessary?** MAURISSEN, J.P.<sup>a</sup> and B.R. MARABLE<sup>b</sup>, Neurotoxicology, <sup>a</sup>The Dow Chemical Company, Midland, Michigan and <sup>b</sup>Syracuse Research Corporation, Syracuse, N.Y.

**NBTS 29. Prenatal cocaine exposure-induced changes in the expression of dopamine receptor-signaling genes in the mouse cerebral cortex.** HE, F.\*, S.I. NOVIKOVA\*, J. BAI\*, M.S. LIDOW. Dept. of Biomed. Sci., University of Maryland, Baltimore, MD.

**NBTS 30. Harmful effects of perinatal omega-3 fatty acid deficiency and excess on the neurodiagnostic auditory brainstem response (ABR): Preliminary results.** CHURCH, M.W. and K-L.C. JEN\*. Dept. Ob/Gyn and Nutrition and Food Sci., Wayne State Univ., Detroit, MI.

**NBTS 31. Intergenerational effects of chronic and intermittent cocaine exposure on maternal behavior in next generation non-lactating offspring.** MCMURRAY, M.S., A. HASLUP\*, R. MIRZA\*, T. JARRETT\*, C. WALKER\*, T. RODRIGUES\*, V. HOFLE, and J.M. JOHNS. Department of Psychiatry, University of North Carolina, Chapel Hill, N.C.

**NBTS 32. Confounding Effects of Prepulse Stimulus Intensity and Frequency Type on Prepulse Inhibition in Scopolamine Treated Rats.** ANDRUS, A.K.<sup>a,b</sup>, B.R. MARABLE<sup>c</sup>, G.L. DUNBAR<sup>b,\*</sup>, M.P. REILLY<sup>b,\*</sup>, and J.P.J. MAURISSEN<sup>a,b</sup>. <sup>a</sup>Toxicology and Environmental Research and Consulting, The Dow Chemical Company, Midland, Michigan. <sup>b</sup>Department of Psychology, Central Michigan University, Mt. Pleasant, Michigan. <sup>c</sup>Syracuse Research Corporation, Syracuse, N.Y.

**NBTS 33. Iron (Fe) deprivation and infant behavior in monkeys; prenatal vs postnatal effects during the first three months of life.** GOLUB, M.S., C.E. HOGREFE\*, S.L. GERMANN, and J.P. CAPITANIO\*. California National Primate Research Center, Davis, CA.

Travel Award Recipient

**NBTS 34. Multiple toxic effects of in utero exposure to DEHP.** MCFADDEN\*, H.G., SAHAY\*, N., and PIZZI, W.J. Northeastern Illinois University, Chicago, IL.

**NBTS 35. Cocaine exposure limited to early pregnancy in rats produces lasting impairment in selective attention: Evidence from extra-dimensional shift (EDS) tasks.** BENEDETTO, T.L.\*, S.A. BEAUDIN\*, C.F. MACTUTUS, D.A. LEVITSKY\*, R.M. BOOZE, M. STRAW-DERMAN, and STRUPP, B.J. Cornell Univ., Ithaca, NY, Univ. of S. Carolina, Columbia, S.C.

**NBTS 36. Adolescent Nicotine Exposure Produces Dose-Dependent Changes in Cocaine Sensitivity in Adult Rats.** NOLLEY, E.P.\* KELLEY, B.M., LYONS, M.D.\* WILEY, A.R.\* Department of Psychology, Bridgewater College, Bridgewater, VA.

**NBTS 37. Neuropsychological markers of ADHD risk in substance exposed and non-exposed infants.** NOLAND, J.S.; SINGER, L.T.; SHORT, E.J.\*; MINNES, S.\*; ARENDT, R.E., SIMPSON, K.S.\* Department of Psychology and Human Development, Vanderbilt Kennedy Center, Vanderbilt University, Nashville, Tennessee; Department of Pediatrics, Case Western Reserve University, Cleveland, OH.

**NBTS 38. Developmental outcome of children prenatally exposed to carbamazepine.** JANULEWICZ, P.<sup>1</sup>, ADAMS, J.<sup>1</sup>, HOLMES, L.B.<sup>2</sup>, AND DHILLON, R.\*<sup>2</sup>. <sup>1</sup>Psychology, Univ. of Massachusetts Boston, <sup>2</sup>Genetics and Teratology, Mass General Hospital, Boston, MA.

**NBTS 39. Succimer chelation normal-izes emotion regulation in lead-exposed rats: Evidence from an olfactory conditional association task.** BEAUDIN, S.A., STANGLE, D.E.<sup>1</sup>, STRAWDERMAN, M.S.<sup>1</sup>, SMITH, D.<sup>2</sup>, LEVITSKY, D.A.<sup>1</sup>, and STRUPP, B.J.<sup>1\*</sup> <sup>1</sup>Cornell University, Ithaca, NY, <sup>2</sup>University of California, Santa Cruz, CA.

**NBTS 40. Prenatal cocaine exposure up-regulates caspase-3 in noradrenergic locus coeruleus neurons.** DEY, S.\*, BOOZE, R.M., MACTUTUS, C.F., and SNOW, D.M., Univ. of Kentucky, Lexington, KY, and USC, Columbia, S.C.

**NBTS 41. Cocaine exposure throughout gestation results in decreased sensitivity to cocaine in adulthood: effects on timing behavior in rhesus monkeys.** PAULE, M.G.<sup>1,2</sup>, CHELONIS, J.J.\*<sup>1,2,3</sup>, GILLAM, M.P.\*<sup>1</sup> and GRAHAM, S.A.\*<sup>2</sup>.  
<sup>1</sup>Division of Neurotoxicology, National Center for Toxicological Research, Jefferson, Arkansas, <sup>2</sup>Dept Pediatrics, Arkansas Children's Hospital and <sup>3</sup>U. Arkansas Little Rock, Little Rock, AR.

**Tuesday, June 28, 2005**

- 8:30 a.m.–4:00 p.m. NBTS Registration  
**GRAND PALM COLONNADE—EAST SIDE**
- 8:30 a.m.–11:30 a.m. **NBTS Platform Session II**  
 Chair—Joe Tizzano  
**INDIAN KEY AND BIRD KEY ROOMS**
- 8:30 a.m.–8:50 a.m. **NBTS 42. Analysis of the behavioral and neurochemical consequences of (±)3,4-methylenedioxymethamphetamine (MDMA or “ecstasy”).** PIPER, B.J., J.B. FRAIMAN\*, C.B. OWENS\*, and J.S. MEYER. Neuroscience and Behavior Program, Department of Psychology, University of Massachusetts, Amherst, MA.
- 8:50 a.m.–9:10 a.m. **NBTS 43. Induction of the immediate-early gene Egr-1 by MDMA in neonatal rats.** MEYER, J.S.<sup>1</sup> and A. HSU\*<sup>2</sup>. <sup>1</sup>Neuroscience and Behavior Program, University of Massachusetts, Amherst, Massachusetts, and <sup>2</sup>Neuroscience and Behavior Program, Mt. Holyoke College, South Hadley, MA.
- 9:10 a.m.–9:30 a.m. **NBTS 44 . This Is Your (Child's) Brain on Drugs: *in utero* Exposure to a Cannabinoid Agonist Affects Dendritic Morphology of Hippocampal CA1 Neurons in the Young Rat.** MERVIS, R.F.<sup>1,2</sup>, BERBERI, N.<sup>3\*</sup>, BACHSTETTER, A.<sup>2\*</sup>, CASSANO T.<sup>4\*</sup>, MORGESE, M.G.<sup>4\*</sup>, GAETANI, S.<sup>5\*</sup> and V. CUOMO<sup>5\*</sup>. <sup>1</sup>Ctr for Aging and Brain Repair, Dept Neurosurgery., Univ. South Florida College of Medicine, Tampa, FL; <sup>2</sup>NeuroStructural Research Labs, Tampa, FL; <sup>3</sup>Honors College, Univ of South Florida, Tampa, Fl.; <sup>4</sup>Univ Foggia, Italy; <sup>5</sup> Univ La Sapienza Rome, Italy
- 9:30 a.m.–9:50 a.m. **NBTS 45. Metallothionein Expression and Developmental Exposure to Mercury: Effects on Learning in Mice.** LEVIN, E.D., D. EDDINS\*, A. PETRO\*, N. POLLARD\*, C. PERRAUT\* and J.H. FREEDMAN\*. Dept. of Psychiatry, Nicholas School of Environ. and Earth Sci., Duke University, Durham, N.C.
- 9:50 a.m.–10:10 a.m. BREAK
- 10:10 a.m.–10:30 a.m. **NBTS 46. Reversal of heroin neurobehavioral teratogenicity by grafting of neural progenitors.** J. YANAI<sup>1,2</sup>, T. BEN-HUR<sup>3</sup>, T.A. SLOTKIN<sup>2</sup> and S. KATZ<sup>1</sup>., <sup>1</sup>Ross Lab. for Neural Birth Defects, Dept. Anat. and Cell Biol., <sup>3</sup>Dept. Neurol, Hadassah Hebrew U.- Med. Sch., Jerusalem, Israel; <sup>2</sup>Dept. Pharmacol. and Cancer Biol. Duke Med. Ctr., N.C., USA.
- 10:30 a.m.–10:50 a.m. **NBTS 47. Alterations in stress-associated behaviors and neuromarkers in adult rats after neonatal carrageenan injection of a hindpaw.** LIDOW, M.S., ANSELONI V.C.Z\*., HE, F.\*, NOVIKOVA, S.I.\* and LIDOW, I.A.\*., Dept. of Biomed. Sci., University of Maryland, Baltimore, MD.
- 10:50 a.m.–11:10 a.m. **NBTS 48. Thyroid Hormone Insufficiency: Persistent Deficits in Brain Structure and Function.** M. E. GILBERT, Neurotoxicology Division, NHEERL, ORD, US EPA, RTP, North Carolina.
- 11:10 a.m.–11:30 a.m. **NBTS 49. Consequences of Bullying During Puberty.** NEWMAN, M.L., and Y. DELVILLE\*. Department of Psychology, University of Texas at Austin, Austin, TX.
- 11:30 a.m.–1:30 p.m. **NBTS/TS POSTER SESSION II** and Exhibits Open  
 (Posters set-up 9:00 a.m.–1:30 p.m. and attended 11:45 a.m.–1:15 p.m.)  
**Jacaranda Hall**  
 Chair—Brian Kelley

Travel Award Recipient

**NBTS 50. Effect of low-dose acrylamide exposure on preweaning behavior of Fisher 344 rats.** GAREY, J., FERGUSON, S.A. AND PAULE, M.G. Division of Neurotoxicology, National Center for Toxicological Research/FDA, Jefferson, AR.

**NBTS 51. A single administration of ketamine produces an inflammatory response in the developing rat brain.** WRIGHT, L.K.M.<sup>1\*</sup>, TWADDLE, N.<sup>2\*</sup>, BRANHAM, W.<sup>3\*</sup>, WANG, C.<sup>1\*</sup>, SCHMUED, L.C.<sup>1\*</sup>, PATTERSON, T.A.<sup>1\*</sup> and PAULE, M.G.<sup>1</sup>. Divisions of <sup>1</sup>Neurotoxicology and <sup>2</sup>Biochemical Toxicology and <sup>3</sup>Center for Functional Genomics, National Center for Toxicological Research, Jefferson, AR.

Travel Award Recipient

**NBTS 52. Neonatal hippocampal Tat injections: Effects on prepulse inhibition (PPI).** FITTING, S.\* , BOOZE, R.M., WU, G., and MACTUTUS, C.F. Beh. Neurosci. Prgm., USC, Columbia, SC.

**NBTS 53. Prenatal Cocaine Exposure: Dose-Dependent Increase in Intentional Tremor.** BROWN, L.M.\* , BOOZE, R.M., STRUPP, B.J., SNOW, D.M., and MACTUTUS, C.F., Behav. Neurosci. Prgm. USC, Columbia, SC.

NBTS 2005 New Investigator Award—Lori L. Driscoll

**NBTS 54. Early postnatal exposure to DE-71 produces lasting effects on learning in a visual discrimination task.** DUFAULT, C.,\* POLES, G.\* and DRISCOLL, L.L. Dept. of Psychology, Colorado College, Colorado Springs, CO.

**NBTS 55. Similarities in Methylphenidate Sensitivity and Reward Were Observed in Adolescent Mice and Adult Mice Exposed to Nicotine During Adolescence.** KELLEY, B.M., NOLLEY, E.P.\* BINNS, D.L.,\* CLARKE, R.,\* WADSWORTH, S.H.\* Department of Psychology, Bridgewater College, Bridgewater, Virginia.

**NBTS 56. Blood and Brain Mercury Levels in Infant Monkeys Exposed to Methylmercury or Vaccines Containing Thimerosal.** BURBACHER, T.M.<sup>a,c,d</sup>, SHEN, D.D.<sup>\*b</sup>, LIBERATO, N.A.<sup>\*a,c,d</sup>, GRANT, K.S.<sup>a,c,d</sup>, CERNICHIARI, E.<sup>\*c</sup>, and CLARKSON, T.<sup>\*c</sup>. Department of Environmental and Occupational Health Sciences,<sup>a</sup> School of Public Health and Community Medicine, Departments of Pharmacy and Pharmaceutics <sup>b</sup>, School of Pharmacy, Washington National Primate Research Center,<sup>c</sup> and Center on Human Development and Disability,<sup>d</sup> University of Washington, Seattle, WA. , Department of Environmental Medicine<sup>e</sup> , University of Rochester School of Medicine, Rochester, N.Y.

2:00 p.m.–5:00 p.m.

**NBTS Platform Session III**  
**INDIAN KEY AND BIRD KEY ROOMS**  
Chairs—Gregg Stanwood and Lynn Singer

2:00 p.m.–2:20 p.m.

**NBTS 57. Growth Trajectories of Children Prenatally Exposed to Cocaine to Age 6 Years.** H.L. KIRCHNER\*, S. MINNES\*, Y. IBRAHIM\*, E. SHORT\*, L.T. SINGER. Case Western Reserve University, Departments of Pediatrics, General Medical Sciences, and Psychology, Cleveland, OH.

2:20 p.m.–2:40 p.m.

**NBTS 58. Preweaning cocaine alters acquisition of active avoidance in the adult male Sprague-Dawley rat.** MELNICK, S.M.<sup>1</sup>, J.R. MYRIE<sup>2\*</sup> and D.L. DOW-EDWARDS, Physiology/Pharmacology, SUNY Downstate Medical Center, Brooklyn, N.Y., <sup>1</sup>SK Bio-Pharmaceuticals, Fairfield, N.J. <sup>2</sup>Memorial Sloan Kettering Cancer Center, New York, N.Y.

2:40 p.m.–3:00 p.m.

**NBTS 59. Prenatal intravenous (IV) cocaine: Cell loss in the locus coeruleus (LC).** MACTUTUS, C.F., U. HASSELROT\*, S. FITTING, S. ADAMS, D.M. SNOW, B.J. STRUPP and R.M. BOOZE, Beh. Neurosci. Prgm. USC, Columbia, SC; Anat. and Neurobiol. UKY, Lexington, KY; Dept Psych., Cornell Univ., Ithaca, NY.

3:00 p.m.–3:15 p.m.

Break

3:15 p.m.–3:35 p.m.

**NBTS 60. Correlations of brain glucose metabolic rates and behavior in adolescent rats exposed to prenatal cocaine and subsequent methylphenidate administration.** TORRES-REVERON A. and D.L. DOW-EDWARDS. Department of Physiology and Pharmacology and Program in Neural and Behavioral Science, SUNY Downstate, Brooklyn, New York.

3:35 p.m.–3:55 p.m.

**NBTS 61. In utero cocaine exposure permanently alters behaviorally relevant brain circuits.** STANWOOD, G.D., B.L. THOMPSON\*, and P. LEVITT\* Dept. Pharmacology and Vanderbilt Kennedy Center, Vanderbilt University, Nashville, TN.

- 3:55 p.m.–4:15 p.m. **NBTS 62. Self-Reported Mental Health Symptoms Of 9-Year Old Prenatally Cocaine-Exposed Children.** L.T. SINGER, S. MINNES\*, T. LINARES\*, E. SHORT\*, S. SATAYATHUM\*, H.L. KIRCHNER\*. Case Western Reserve University, Departments of Pediatrics, Psychology, and General Medical Sciences, Cleveland, OH.
- 4:15 p.m.–4:30 p.m. Discussion
- 4:30 p.m.–11:00 p.m. Free Evening—Group Social Event