SATURDAY, JUNE 24, 2006

9:00 AM–12:00 PM  COUNCIL 1A MEETING—Executive Board Room
11:30 AM–5:00 PM  REGISTRATION—Grand Ballroom Foyer
1:00 PM–4:50 PM  EDUCATION COURSE (Separate registration required)—Salon B

Vertebrate Embryology
Organized by the Education Committee: Gloria Jahnke, Chairperson
Coursebooks provided by Charles River Laboratory Preclinical Services–CTBR
Breaks co-sponsored by Covance, DuPont Haskell Laboratory for Health and Environmental Science, and Gene Logic Laboratories

1:00 PM–1:10 PM  Welcome
Melissa S. Tassinari, President, Teratology Society

1:10 PM–1:15 PM  Introduction
Speaker: Gloria Jahnke, Sciences International, Inc.

1:15 PM–1:25 PM  Narsingh Agnish Fellowship
Speaker: Narsingh Agnish

1:25 PM–2:10 PM  Comparative Cleavage & Gastrulation
Speaker: Gary C. Schoenwolf, University of Utah

2:10 PM–2:55 PM  Brain-Neural Tube Development
Speaker: Richard H. Finnell, Institute of Biosciences and Technology

2:55 PM–3:20 PM  Break

3:20 PM–4:05 PM  Craniofacial Development
Speaker: Lori Kotch, John Hopkins University School of Medicine

4:05 PM–4:50 PM  Skeletal Development (Including Limb)
Speaker: Michael D. Collins, UCLA School of Public Health

6:30 PM–9:00 PM  COUNCIL 1B MEETING (COMMITTEE REPORTS)—Executive Board Room

SUNDAY, JUNE 25, 2006

7:30 AM–8:00 AM  EDUCATION COURSE COFFEE AND CONTINENTAL BREAKFAST—Grand Ballroom Foyer
8:00 AM–7:00 PM  REGISTRATION—Grand Ballroom Foyer
8:00 AM–11:25 AM  
**EDUCATION COURSE**  (Continued from Saturday)—Salon B

**Vertebrate Embryology**

8:00 AM–8:45 AM  
Heart Development  
*Speaker: John DeSesso, Mitretek Systems*

8:45 AM–9:30 AM  
Urogenital Development  
*Speaker: Kok-Wah Hew, Emisphere Technologies, Inc.*

9:30 AM–9:55 AM  
Break

9:55 AM–10:40 AM  
Xenopus Model  
*Speaker: Chris Wylie, Cincinnati Children’s Hospital Medical Center*

10:40 AM–11:25 AM  
Zebra Fish Model  
*Speaker: Kim Brannen, Bristol-Myers Squibb*

11:25 AM–2:00 AM  
Networking and Lunch on Own

2:00 PM–5:00 PM  
**TS/NBTS JOINT SYMPOSIUM**—Salon B

**Early Exposures: Childhood Behavior Disorders**
*Chairs: Cynthia F. Bearer, Case Western Reserve University and Jane Adams, University of Massachusetts*

2:00 PM–2:40 PM  
S1  
Autism: Parsing Heterogeneity of Causes and Features  
*Speaker: Martha Herbert, Massachusetts General Hospital*

2:40 PM–3:20 PM  
S2  
Biomarkers of Prenatal Alcohol Exposure Correlate with Poor Developmental Outcomes  
*Speaker: Cynthia F. Bearer, Case Western Reserve University*

3:20 PM–3:40 PM  
Break

3:40 PM–4:20 PM  
S3  
Low Level Lead Exposure and the Risk of Delinquency: It’s Not Just Cognition that’s Affected  
*Speaker: Herbert L. Needleman, University of Pittsburgh School of Medicine*

4:20 PM–5:00 PM  
S4  
Neuropsychological Deficits in Neonatal Dietary Manganese Exposure  
*Speaker: Francis M. Crinella, University of California—Irvine*

2:00 PM–5:00 PM  
**INTERNATIONALLY HARMONIZED UPDATES TO “TERMINOLOGY OF DEVELOPMENTAL ABNORMALITIES, VERSION 1” SYMPOSIUM**—Salon A

*Chairs: Susan Makris U.S. Environmental Protection Agency and Howard Solomon, GlaxoSmithKline*

2:00 PM–2:40 PM  
S5  
Introduction, Background, and Current Status of Terminology Update  
*Speaker: Susan Makris, U.S. Environmental Protection Agency*

2:40 PM–3:20 PM  
S6  
Terminology Revision—A European Perspective  
*Speaker: Jochen Buschmann, Fraunhofer-Institute for Toxicology and Experimental Medicine*

3:20 PM–3:40 PM  
Break

3:40 PM–4:20 PM  
S7  
A Japanese Perspective on Terminology Revision  
*Speaker: Kohei Shiota, Kyoto University Graduate School of Medicine*

4:20 PM–5:00 PM  
S8  
An Introduction to: “Terminology of Developmental Abnormalities, Version 2”  
*Speaker: Howard Solomon, GlaxoSmithKline*

5:00 PM–6:15 PM  
**WELCOME RECEPTION AND EXHIBITS OPEN**—Kiva Ballroom

*Co-sponsored by Gene Logic Laboratories and MPI Research*
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<td>JAMES G. WILSON PUBLICATION AWARD</td>
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<td>COFFEE BREAK</td>
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<td>STUDENT PLATFORM SESSION</td>
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### 9:45 AM–10:00 AM
1. **Safety of Leukotriene Receptor Antagonists in Pregnancy**
   - Bakhireva LN, Jones KL, Chambers CD. OTIS Collaborative Research Group. University of California, San Diego, La Jolla, CA, United States.

### 10:00 AM–10:15 AM
2. **Vitamin K Homeostasis May be Required for Yolk Sac Angiogenesis**
   - Weston AD, Navetta K, Brown NA, Ozolins TR.
   - 1Investigative and Developmental Toxicology, Pfizer Global Research and Development, Groton, CT, United States,
   - 2Molecular Investigative Toxicology, Pfizer Global Research and Development, Groton, CT, United States,
   - 3Division of Basic Medical Sciences, St. George’s University of London, London, United Kingdom.

### 10:15 AM–10:30 AM
3. **Molecular Characterization of Alcohol-Related Birth Defects in Two Closely Related Lineages of C57BL/6 Mice (B6N, B6J)**
   - Green ML, Singh AV, Zhang Y, Knudsen TB. University of Louisville, Louisville, KY, United States.

### 10:30 AM–10:45 AM
4. **Altered Gene Expression in Both Ectoderm and Mesoderm are Associated with a Murine Strain Difference in Retinoic Acid-Induced Forelimb Ectrodactyly in Retinoic Acid-Induced Forelimb Ectrodactyly**
   - Shimizu H, Lee GS, Collins MD.
   - 1UCLA School of Public Health, Los Angeles, CA, United States,
   - 2UCLA Molecular Toxicology Interdepartmental Program, Los Angeles, CA, United States.

### 10:45 AM–11:00 AM
5. **Mechanism Underlying Arsenic-Induced Neural Tube Defects in a Mouse Model**
   - Hill DS, Wlodarczyk BJ, Finnell RH. CEGM, Institute of Biosciences and Technology, Texas A&M University SHSC, Houston, TX, United States.
11:00 AM–11:15 AM 6  Combining Microarrays with Comparative Genomics to Elucidate Gene Regulatory Networks for Normal and Perturbed Forebrain Development
Gohlke JM, Parham FM, Portier CJ. NIEHS, Chapel Hill, NC, United States.

11:15 AM–11:30 AM 7  Immunological and Pathological Effects of *Listeria monocytogenes* Infection in Pregnant Guinea Pigs
Irvin EA1, Williams D2, Voss KA2, Smith MA1, 2University of Georgia, Athens, GA, United States, 1U.S. Department of Agriculture–ARS, Athens, GA, United States

11:30 AM–12:00 PM F. CLARKE FRASER AWARD—Salon B
Christina D. Chambers, University of California—San Diego, San Diego, CA

12:00 PM–1:00 PM PAST PRESIDENTS’ LUNCH (By invitation only)—Executive Boardroom

12:00 PM–1:00 PM LUNCH ON OWN

12:30 PM–7:30 PM POSTERS AND EXHIBITS OPEN—Kiva Ballroom
(Attended 6:00 PM–7:30 PM)

1:00 PM–3:30 PM TS/NBTS JOINT SYMPOSIUM—Salon A
Endocrine Disruption: From Animal to Human Studies
Chairs: Elaine Z. Francis, U.S. Environmental Protection Agency and Mari Golub, University of California—Davis

1:00 PM–1:30 PM S9  The “Phthalate Syndrome” In Rodents: Have We Identified the Human Analog?
Speaker: Shanna H. Swan, University of Rochester

1:30 PM–2:00 PM S10 PCBs and Auditory Function: From Animal Models to Human Infants
Speaker: Susan Schantz, University of Illinois—Urbana

2:00 PM–2:30 PM S11 Human and Animal Studies of Pubertal Development Following Perinatal Exposure to PBBs
Speaker: Michele Marcus, Emory University

2:30 PM–3:00 PM S12 Fetal Exposure to Dioxin Disrupts Progesterone Responsiveness in the Adult Murine Uterus: Implications for the Development of Endometriosis in Humans
Speakers: Kevin G. Osteen, Vanderbilt University School of Medicine

3:00 PM–3:10 PM S13 Genetic and Environmental Risk Factors for Hypospadias
Speaker: Jeanne Manson, The Children’s Hospital of Philadelphia

3:10 PM–3:30 PM Panel Discussion: Problems and Solutions in Moving from Animal to Human Studies
Discussion Leader: Jeanne Manson, The Children’s Hospital of Philadelphia

1:00 PM–2:00 PM ROBERT L. BRENT LECTURE—TERATOGEN UPDATE—Salon B
Chair and Commentator: Robert L. Brent, Alfred I. duPont Hospital for Children

*Of Mice, Men, Monkeys, and Metabolism: An Update on the Developmental Toxicity of Methanol* (Abstract S13A)
John Rogers, U.S. Environmental Protection Agency
2:00 PM–3:30 PM **TS/OTIS JOINT PLATFORM SESSION**—Salon B  
**Chairs:** Lewis B. Holmes, Massachusetts General Hospital for Children and Kenneth Lyons Jones, University of California—San Diego

2:00 PM–2:15 PM  **8 Increased Risk for Non-Syndromic Cleft Palate Among Infants Exposed to Lamotrigine During Pregnancy**  

2:15 PM–2:30 PM **9 Outcomes of Human Pregnancies with Levetiracetam Exposure**  
ten Berg K1, Van Oppen ACC1, Van Donselaar CA1, Wentges-Van Holthe JM1, Koppe WM1, Tamminga P4, Lindhout D1. 1University Medical Center Utrecht, Utrecht, Utr, Netherlands, 2National Institute for Public Health and the Environment, Bilthoven, Utr, Netherlands, 3Bethesda Hospital, Hoogeveen, Dr, Netherlands, 4Academic Medical Center, Amsterdam, NH, Netherlands.

2:30 PM–2:45 PM **10 Seasonal Conceptions in Neural Tube Defects, Schizophrenia and Hemispheric Laterality: Evidence Implicating Differential Embryonic Survival**  
Marzullo G. Per Aspera Research Foundation, New York, NY, United States.

2:45 PM–3:00 PM **11 Risk of Congenital Malformations in Pregnant Users of NSAIDs**  
Ofori B1,2, Oraichi D2, Berard A1,2. 1Faculty of Pharmacy, University of Montreal, Montreal, QC, Canada, 2Sainte Justine Hospital, Montreal, QC, Canada.

3:00 PM–3:15 PM **12 Failure of Pregnancy Prevention for Category X Medications: the Example of Leflunomide**  
Tassinari E1, Johnson D3, Chambers CD2, Jones KL2. OTIS Collaborative Research Group. 1George Washington University, Washington DC, United States, 2University of California San Diego, La Jolla, CA, United States.

3:15 PM–3:30 PM **13 Neurodevelopmental Outcome in Children of Women Treated with Anticonvulsant Monotherapy**  
Mattson SN1, Chambers CD2, Vander Velde JF1, Kao KK2, Jones KL2. 1Center for Behavioral Teratology, San Diego State University, San Diego, CA, United States, 2Department of Pediatrics, Division of Dysmorphology and Teratology, University of California, San Diego, La Jolla, CA, United States.

3:30 PM–3:45 PM **BREAK**

3:45 PM–5:45 PM **TS/OTIS JOINT ROUNDTABLE**—Catalina Ballroom  
**Communicating Teratogenic Risk Information: Case Studies in Teratogenic Risk Communication and Perception**  
**Chairs:** Janine E. Polifka, University of Washington and Christina D. Chambers, University of California—San Diego

3:45 PM–4:45 PM **S14 Risk Analysis and Risk as Feelings: Commentary on the Dance of Affect and Reason**  
**Speaker:** Paul Slovic, Decision Research Institute
4:45 PM–4:55 PM  S15  Risk Communication in the Face of Uncertainty and New Findings  
Speaker: Alice Hughes, Center for Drug Evaluation and Research, U.S. Food and Drug Administration  

4:55 PM–5:05 PM  S16  Cultural Differences in Risk Perception and Assessment  
Speaker: Lee Ann Kaskutas, University of California—Berkeley  

5:05 PM–5:15 PM  S17  Communication of Fluorochemical Research to Production Workers  
Speaker: Geary Olsen, 3M Corporate Occupational Medicine  

5:15 PM–5:45 PM  Panel Discussion: Risk Communication Challenges—Implications for Teratogen Information  

3:45 PM–5:45 PM  NATIONAL CHILDREN’S STUDY: PLANNING AND IMPLEMENTATION—Salon B  
Chair: Carole A. Kimmel, Consultant, National Children’s Study, NICHD/NIH  

3:45 PM–3:55 PM  S18  Introduction  
Speaker: Carole A. Kimmel, Consultant, National Children’s Study, NICHD/NIH  

3:55 PM–4:15 PM  S19  Update on the Study Protocol  
Speaker: Ruth A. Brenner, National Children’s Study, NICHD/NIH  

4:15 PM–4:35 PM  S20  Coordination of the National Children’s Study  
Speaker: Carla Maffeo, Westat Corporation  

4:35 PM–4:55 PM  S21  Community Engagement and Recruitment in a Vanguard Center  
Speaker: Edward B. Clark, University of Utah Health Sciences Center  

4:55 PM–5:45 PM  S22  The North Carolina Herald Pilot Study  
Speaker: Pauline Mendola, National Health and Environmental Effects Research Laboratory, ORD/U.S. EPA  

5:30 PM–7:30 PM  TS/NBTS/OTIS JOINT POSTER SESSION I AND EXHIBITS OPEN—Kiva Ballroom  
Co-sponsored by Gene Logic Laboratories and GlaxoSmithKline  
(Posters attended from 6:00 PM–7:30 PM)  

Teratology Society Posters  P1–P27  
P1–P17: Clinical Teratology and Epidemiology  
P18–P21: Public Policy  
P22–P27: Mechanisms–Animal Model  

NBTS Posters  NBTS24–NBTS33  
OTIS Posters  OTIS-P1–OTIS-P2  

7:30 PM–10:30 PM  MARTA/MTA STUDENT CAREER EVENT—Bill’s Grill
MINI COURSE BREAKFAST—Salon B

BDRA EDITORIAL BOARD MEETING—Executive Boardroom

BDRB EDITORIAL BOARD MEETING—Sabino

REGISTRATION—Grand Ballroom Foyer

SUNRISE MINI-COURSE (Separate registration required)—Salon B

Developmental Pharmacokinetics
Organized by the Education Committee: Gloria Jahnke, Chairperson
Coursebooks provided by Charles River Laboratory Preclinical Services–CTBR

7:00 AM–7:45 AM Prenatal Pharmacokinetics—Maternal & Fetal
Speaker: Edward W. Carney, The Dow Chemical Company

7:45 AM–8:30 AM Postnatal Pharmacokinetics (Postnatal Through Juvenile)
Speaker: Hugh Barton, U.S. Environmental Protection Agency

COFFEE AND CONTINENTAL BREAKFAST—Kiva Ballroom

POSTERS AND EXHIBITS OPEN—Kiva Ballroom
(Attended 11:45 AM–1:30 PM)

MARCH OF DIMES SYMPOSIUM—Salon B
New Insights in Myogenesis: Implications for Muscle Development, Birth Defects, and Regeneration (Abstract S23)
Chair: Tyra M. Leazer, Procter & Gamble Company
Sponsored by March of Dimes

8:30 AM–11:30 AM

8:30 AM–8:35 AM Introduction

8:35 AM–9:15 AM Introductions to Muscle Dystrophies: Insights from the Clinic
Speaker: Jan K. Blancato, Georgetown University Medical Center

9:15 AM–9:55 AM Asymmetry in Myogenesis
Speaker: Charles P. Ordahl, University of California—San Francisco

9:55 AM–10:10 AM BREAK

10:10 AM–10:50 AM Myogenesis Development and Molecular Control: Role of the Rho Family of Small GTPases
Speaker: Mingyao Liu, Texas A&M University

10:50 AM–11:30 AM Genetics of Muscular Dystrophy and Disease: Impact and Implications of Polymorphisms in Animals and Humans
Speaker: Eric Hoffman, Children’s Research Institute

TS/NBTS JOINT POSTER SESSION II AND EXHIBITS OPEN—Kiva Ballroom
Co-sponsored by Gene Logic Laboratories and GlaxoSmithKline
(Posters attended from 11:45 AM–1:30 PM)

Teratology Society Posters P28–P61:
P28–P38: Hazard/Risk Evaluation
P39–P53: Mechanisms
P54–P61: Methods

NBTS Posters NBTS34–NBTS38
1:30 PM–3:30 PM  PLATFORM SESSION I—Salon B
Epidemiology—Clinical Teratology
Chair: Suzan L. Carmichael, California Birth Defects Monitoring Program

1:30 PM–1:45 PM  14 Childhood Cancer and Pesticides - A Case-Control Study of Possible Gene-Environment Interactions
Solodkin OP1,2, Loffredo CA1, Shields PG1, Barr D1, Luban N1, Shad A1, Nelson D1. 1Department of Oncology, Lombardi Comprehensive Cancer Center, Georgetown University Medical Center, Washington, DC, United States, 2Department of Medicine and Center for Sex Differences, Washington, DC, United States, 3Centers for Disease Control and Prevention, Atlanta, GA, United States, 4Children’s National Medical Center, (CNMC), George Washington University, Washington, DC, United States, 5Department of Pediatrics, Georgetown University Medical Center, Washington, DC, United States.

1:45 PM–2:00 PM  15 Child Neurodevelopment Following Exposure to Venlafaxine In Utero, Unexposed Siblings as Comparison Groups: Preliminary Results
Nulman I1,2, Knittel-Keren D1,2, Valo S1,2, Sussman R1,2, Barrer A M1,2, Koren G1,2. 1University of Toronto, Toronto, ON, Canada, 2Hospital for Sick Children, Toronto, ON, Canada.

2:00 PM–2:15 PM  16 Evaluation of Clinical Presentation in Neonates Exposed to Antidepressants in Late Pregnancy
Boucher N1,2, Bairam A1,3, Beaulac-Baillargeon L1,2. 1Perinatology Research Unit, Laval University affiliated Hospitals (CHUQ), Saint-Francois d’Assise Hospital, Quebec, QC, Canada, 2Faculty of Pharmacy, Laval University, Quebec, QC, Canada, 3Faculty of Medicine, Laval University, Quebec, QC, Canada.

2:15 PM–2:30 PM  17 Pregnancy Outcome After In-Utero Exposure to Valproic Acid: A Prospective Controlled Cohort Study
Diaz-Citrin O1, Shechtman S1, Cantrell D1, Bar-Oz B1, Arnon J1, Ornoy A1,2. 1The Israeli Teratogen Information Service, Israel Ministry of Health, Jerusalem, Israel, 2The Hebrew University Hadassah Medical school, Jerusalem, Israel, 3The Department of Neonatology, Hadassah University Hospital, Mount Scopus, Jerusalem, Israel.

2:30 PM–2:45 PM  18 Long Delay Eyeblink Conditioning in Autism
Arndt TL1, Chadman KK2, Watson DJ2, Tsang V1, Rodier PM1, Stanton ME2. 1University of Rochester School of Medicine and Dentistry, Rochester, NY, United States, 2University of Delaware, Newark, DE, United States.

2:45 PM–3:00 PM  19 Maternal Thyroid Disease as a Possible Risk Factor for Craniosynostosis, National Birth Defects Prevention Study, 1997-2002
Rasmussen SA1, Yazdy M1, Honein M1, Carmichael SL1, Canfield M1. 1Centers for Disease Control and Prevention, Atlanta, GA, United States, 2California Birth Defects Monitoring Program, Berkeley, CA, United States, 3Texas Center for Birth Defects Research and Prevention, Austin, TX, United States.
3:00 PM–3:15 PM  20  Maternal Stressors and Risks of Selected Birth Defects
Carmichael SL1, Shaw GM1, Yang W1, Abrams B2. 1March of Dimes/California Birth Defects Monitoring Program, Berkeley, CA, United States, 2University of California, Berkeley, CA, United States.

3:15 PM–3:30 PM  21  Birth Prevalence Rate of Major Malformations: Establishing Prevalence Rate of Major Malformations after In-Uterine Exposure: A Challenge for Pregnancy Registries
Harel EH, Holmes LB. MassGeneral Hospital for Children, Boston, MA, United States.

1:45 PM–3:15 PM  TS/OTIS JOINT SYMPOSIUM—Catalina Ballroom
Emerging Infections: Mechanisms of Inflammation During Pregnancy
Chairs: Mary Alice Smith, University of Georgia and Dee Quinn, University of Arizona

1:45 PM–2:15 PM  S24  Molecular Mechanisms of Oral Infection Mediated Perinatal Complications
Speaker: Steven Offenbacher, University of North Carolina

2:15 PM–2:45 PM  S25  Immunopathogenesis of Malaria During Pregnancy
Speaker: Julie Moore, University of Georgia

2:45 PM–3:15 PM  S26  Listeria-Induced Stillbirths: Impact of Mechanisms of Infection on Risk Assessment
Speaker: Mary Alice Smith, University of Georgia

3:15 PM–3:30 PM  BREAK

3:30 PM–6:30 PM  TS/OTIS JOINT SYMPOSIUM—Catalina Ballroom
Emerging Infections: Viruses Beyond Rubella
Chairs: Sonja Rasmussen, Centers for Disease Control and Prevention and Dee Quinn, University of Arizona

3:30 PM–3:40 PM  S27  Introduction
Speaker: Sonja Ramassen, Centers for Disease Control & Prevention

3:40 PM–4:10 PM  S27  Is West Nile Virus a Teratogen?
Speaker: Dawn M. Wesson, Tulane Health Sciences Center

4:10 PM–4:40 PM  S28  Lymphocytic Choriomeningitis Virus (LCMV): Emerging Fetal Teratogen
Speaker: Marilyn Baird Mets, Northwestern University

4:40 PM–5:10 PM  S29  Risks and Benefits of Immunizing Pregnant Women: The Risk of Doing Nothing
Speaker: Robert L. Brent, Alfred I. duPont Hospital for Children

5:10 PM–5:40 PM  S30  Challenges to the Study, Prophylaxis and Treatment of Pregnant Women for Emerging Infection
Speaker: Denise Jamieson, Division of Reproductive Health, Center for Disease Control and Prevention

5:40 PM–6:30 PM  S30  Panel Discussion

3:30 PM–6:15 PM  PLATFORM SESSION II—Salon B
Mechanisms I
Chairs: Louise M. Winn, Queen’s University and E. Sidney Hunter, III, U.S. Environmental Protection Agency

3:30 PM–3:45 PM  22  Overexpression of c-Ha-ras Protects Against All-trans Retinoic Acid Induced Malformations
Marshall EK, Albert JR, Collins MD. University of California Los Angeles, Los Angeles, CA, United States.
3:45 PM–4:00 PM 23 Comparative Pathogenesis of Cadmium- and/or All-trans Retinoic Acid-Induced Postaxial Forelimb Ectrodactyly in the C57BL/6 Mouse

4:00 PM–4:15 PM 24 Abnormal Yolk Sac Vasculature and Decreased Nitric Oxide in Copper Deficient Mouse Embryos
Yang SJ, Lanoue L, Keen CL, Rucker RB, Uriu-Adams JY. University of California, Davis, Davis, CA, United States.

4:15 PM–4:30 PM 25 Minimal Role for Reactive Oxygen Species in Dichloroacetic Acid-Induced Dysmorphology in Mouse Whole Embryo Culture

4:30 PM–4:45 PM 26 Benzene Alters Embryonic Pim-1 Signalling and Induces Oxidative Stress in CD-1 Mice
Wan J, Winn LM. Queen’s University, Kingston, ON, Canada.

4:45 PM–5:00 PM 27 The Ontogeny of Circulating Thyroid Hormone Levels in Sprague-Dawley Rats

5:00 PM–5:15 PM 28 The Effects of Methimazole on Circulating Thyroid Hormone Levels in Sprague-Dawley Rats

5:15 PM–5:30 PM 29 Lack of Association Between Cardiovascular Malformations and Treatment with Selective Estrogen Receptor Modulators (SERMs) in Rats and Rabbits
Hancock JW, Reddy VR, Hilbish KG, Breslin WJ. Eli Lilly and Company, Greenfield, IN, United States.

5:30 PM–5:45 PM 30 Artesunate: Developmental Toxicity in Monkeys
Clark RL¹, Kumemura M², Makori N³, Nakata Y¹, Bernard F⁵, Harrell A², White TEK¹, Arima A¹. ¹GlaxoSmithKline, King of Prussia, PA, United States, ²SNBL, Kagoshima, Japan, ³SNBL-USA, Everett, WA, United States, ⁴GlaxoSmithKline, Shibuya-ku, Tokyo, Japan, ⁵GlaxoSmithKline, Ware, Hertfordshire, United Kingdom.

5:45 PM–6:00 PM 31 Mitochondrial Involvement of Artesunate Toxicity in Rat Embryonic Erythroblasts
Laffan SB¹, James AC¹, Maleeff BE¹, Pagana JM², Bushdid PB³, Clark RL¹, White TEK¹. ¹GlaxoSmithKline, Safety Assessment, King of Prussia, PA, United States, ²Drexel University, Philadelphia, PA, United States.

6:00 PM–6:15 PM 32 Dinocap Induced Cleft Palate and Otoconia Agenesis Due to a Single Isomer
Tornesi B¹, Marshall V¹, Carney EW, Billington R². ¹The Dow Chemical Company, Midland, MI, United States, ²Dow AgroSciences, Milton, United Kingdom.
7:00 AM–8:30 AM  **PUBLIC AFFAIRS COMMITTEE MEETING**—Sabino
7:00 AM–8:30 AM  **PUBLICATIONS COMMITTEE MEETING**—Executive Boardroom
7:30 AM–8:00 AM  **COFFEE AND CONTINENTAL BREAKFAST**—Grand Ballroom Foyer
8:00 AM–5:00 PM  **REGISTRATION**—Grand Ballroom Foyer
8:00 AM–9:30 AM  **PLATFORM SESSION III**—Salon B

Mechanisms II

*Chairs: Claudia Kappen, University of Nebraska Medical Center and Richard H. Finnell, Institute of Biosciences and Technology*

8:00 AM–8:15 AM  **33** Early Embryonic Development in Reduced Folate Carrier (RFC1) Knockout Mice is Characterized by Neural Tube Defects, Absence of Erythropoiesis, and Failure of Chorioallantoic Fusion

Gelineau-Van Waes J, Heller S, Maddox J, Eedy J, Askew J, Bauer L, Aleman F, Finnell RH. 1University of Nebraska Medical Center, Omaha, NE, United States, 2Institute of Biosciences and Technology, Houston, TX, United States.

8:15 AM–8:30 AM  **34** Folic Acid Prevents Conotruncal Malformations in Folbp1 Knockout Mice: Role of Folate in Cardiac Neural Crest Cell Survival and Migration

Gelineau-Van Waes J, Aleman F, Maddox J, Bauer L, Tang L, Rosenquist T, Finnell RH. 1University of Nebraska Medical Center, Omaha, NE, United States, 2Institute of Biosciences and Technology, Houston, TX, United States.

8:30 AM–8:45 AM  **35** Maternal Diabetes and Cardiac Malformations: The Role of Pax3, p53-Dependent Apoptosis, and Cardiac Neural Crest Migration

Morgan SC, Relaix F, Buckingham M, Sandell L, Tilghman S, Loeken MR. 1Joslin Diabetes Center, Boston, MA, United States, 2Pasteur Institute, Paris, France, 3Stowers-Institute, Kansas City, MO, United States, 4Princeton University, Princeton, NJ, United States.

8:45 AM–9:00 AM  **36** Altered Gene Expression Profiles in Embryos Exposed to Maternal Diabetes

Pavelinkova G, Kruger C, Salbaum JM, Kappen C. University of Nebraska Medical Center, Omaha, NE, United States.

9:00 AM–9:15 AM  **37** Orofacial Clefts Induced by Diabetes Are Not Affected by Maternal Immune Stimulation

Toops KA, Hrubec TC, Hollanay SD. 1VA-MD Regional College of Veterinary Medicine, Blacksburg, VA, United States, 2E. Via Virginia College of Osteopathic Medicine, Blacksburg, VA, United States.

9:15 AM–9:30 AM  **38** Impact of Maternal Diets and Early Environmental Exposure on Weight Maintenance and Development of the Offspring

8:00 AM–12:00 PM  **TS/NBTS JOINT SYMPOSIUM**—Salon A

**Recent Advances in Research on the Safety of Thimerosal in Vaccines**
*Chair: Thomas Burbacher, University of Washington*

- 8:00 AM–8:05 AM  **Introduction**
  *Speaker: Thomas M. Burbacher, University of Washington*

- 8:05 AM–8:35 AM  **S31 The Many Faces of Mercury**
  *Speaker: Thomas W. Clarkson, University of Rochester*

- 8:35 AM–9:05 AM  **S32 Thimerosal Kinetics in Infants Receiving Routine Vaccinations**
  *Speaker: Polly Sager, National Institute of Allergy and Infectious Diseases*

- 9:05 AM–9:30 AM  **S33 Animal Models of Thimerosal Absorption, Distribution, and Dealkylation**
  *Speaker: Thomas M. Burbacher, University of Washington*

9:30 AM–10:00 AM  **WARKANY TEA**—Grand Ballroom Foyer
*Sponsored by Amgen, Inc.*

- 10:00 AM–10:30 AM  **S34 Nanomolar Thimerosal Dysregulates Dendritic Cell Functions: Mechanisms and Ramifications**
  *Speaker: Issac N. Pessah, University of California—Davis*

- 10:30 AM–11:00 AM  **S35 Neurobehavioral Analysis of Early Postnatal Thimerosal Exposure in Mice**
  *Speaker: Robert F. Berman, University of California—Davis*

- 11:00 AM–11:30 AM  **S36 Neuroanatomical Correlates of Mercury Exposure**
  *Speaker: Jean Harry, National Institute of Environmental Health Sciences*

11:30 AM–12:00 PM  **Discussion**

10:00 AM–12:00 PM  **MARTA/MTA PEDIATRIC SYMPOSIUM**—Catalina Ballroom

**Pediatric Safety Evaluation: Regulatory, Nonclinical, and Clinical Experience**
*Chair: Kok-Wah Hew, Emisphere Technologies, Inc.*

- 10:00 AM–10:30 AM  **S40 Pediatric Safety Evaluation Guidelines: What's New**
  *Speaker: Shaun R. Maguire, GlaxoSmithKline*

- 10:30 AM–11:00 AM  **S41 Pediatric Safety Evaluation: Nonclinical Experience**
  *Speaker: Keith Robinson, Charles River Laboratories Preclinical Services–CTBR*

- 11:00 AM–11:30 AM  **S42 Translational Pediatric Research: Bridging the Gap From Preclinical to Clinical Setting**
  *Speaker: Daniel M. Jorgensen, Pfizer Global Research & Development*

- 11:30 AM–12:00 PM  **S43 Conducting Pediatric Clinical Trials: An Overview**
  *Speaker: Xilla Ussery, Pfizer Global Research & Development*

10:00 AM–12:00 PM  **RARE DISEASES SYMPOSIUM**—Salon B

**Chemically Induced Congenital Anomalies: Is Oxidative Stress a Common Pathway?**
*Chair: Peter G. Wells, University of Toronto*
*Sponsored by the Office of Rare Diseases, National Institutes of Health, DHHS*

- 10:00 AM–10:05 AM  **Introduction**
  *Speaker: Peter G. Wells, University of Toronto*

- 10:05 AM–10:40 AM  **S37 Oxidative DNA Damage and Repair in Teratogenesis**
  *Speaker: Peter G. Wells, University of Toronto*
10:40 AM–11:15 AM  S38  Oxidative Stress and Signal Transduction in Chemical Teratogenesis
Speaker: Jason Hansen, Emory School of Medicine

11:15 AM–11:50 AM  S39  Oxidative Stress in Diabetic Teratogenesis
Speaker: Mary R. Loeken, Harvard University

11:50 AM–12:00 PM  Discussion

12:00 PM–1:00 PM  EDUCATION COMMITTEE MEETING—Executive Boardroom

12:00 PM–1:00 PM  LUNCH ON OWN

1:00 PM–2:00 PM  RARE DISEASES ROUNDTABLE—Salon B
Chair: Melissa Tassinari, Pfizer, Inc.
Speaker: Jean F. Campbell, National Organization for Rare Disorders, Inc.

2:00 PM–5:00 PM  WILEY LISS SYMPOSIUM—Salon B
MicroRNAs in Development
Chairs: Barbara F. Hales, McGill University and Philip Mirkes, Texas A&M University

2:00 PM–2:10 PM  Introduction

2:10 PM–2:45 PM  S44  Introduction to MiRNA
Speaker: Lance P. Ford, Ambion, Inc.

2:45 PM–3:20 PM  S45  Computational Identification of MiRNAs and Their Target Genes
Speaker: Nikolaus Rajewsky, New York University

3:20 PM–3:35 PM  S45  Break

3:35 PM–4:10 PM  S46  MiRNAs as Regulators of C. elegans Development
Speaker: Allison Abbott, Dartmouth Medical School

4:10 PM–4:45 PM  S47  Mammalian Small RNA Biology
Speaker: Michael T. McManus, University of California—San Francisco

4:45 PM–5:00 PM  Conclusion and Discussion

5:00 PM–6:30 PM  BUSINESS MEETING AND REPORTS FROM BIRTH DEFECTS RESEARCH EDITORS—Salon B

6:30 PM–11:00 PM  RECEPTION AND BANQUET—Kiva Ballroom

THURSDAY, JUNE 29, 2006

7:00 AM–7:30 AM  COFFEE AND CONTINENTAL BREAKFAST—Grand Ballroom Foyer

7:00 AM–10:00 AM  REGISTRATION—Grand Ballroom Foyer

7:30 AM–10:30 AM  PUBLIC AFFAIRS COMMITTEE PLATFORM SESSION—Salon B
Regulatory Science
Chair: Anthony R. Scialli, Sciences International, Inc.
Co-sponsored by the ILSI Health and Environmental Sciences Institute (HESI)—Developmental and Reproductive Toxicology Technical Committee

7:30 AM–8:10 AM  S39  The Effects of Serotonin Depletion on Locomotor Development in Zebrafish
Airhart MJ, Miller B1,2, Lee D1, Wilson T2, Miller M2, Skalko RG1. 1Dept. of Anatomy and Cell Biology, East Tennessee State University, Johnson City, TN, United States, 2Dept. of Psychiatry, East Tennessee State University, Johnson City, TN, United States.
8:10 AM–8:50 AM  40  Mineralization of the Lumbar Part of the Vertebral Column in Rat Fetuses Exposed to Cyclooxygenase Inhibitors
Burdan F1,2, Rozylo-Kalinowska I, Szumilo J1, Dudka J3, Klepacz R3. 1Experimental Teratology Unit of the Human Anatomy Department; Medical University of Lublin, Lublin, Poland, 2Second Radiology Department; Medical University of Lublin, Lublin, Poland, 3Clinical Pathomorphology Department; Medical University of Lublin, Lublin, Poland.

8:50 AM–9:10 AM  Break

Naciff JM, Khambatta ZS, Thomason RG, Carr GJ, Tiesman JP, Daston GP. The Procter and Gamble, Cincinnati, OH, United States.

9:50 AM–10:30 AM  42  Gestational Exposure to Paroxetine and Cardiac Malformations in Infants: A Nested Case-Control Study
Berard A1,2, Ramos E1,2, Oraichi D2, Blais L1,3, Rey E1,2. 1University of Montreal, Montreal, QC, Canada, 2Ste-Justine Hospital, Montreal, QC, Canada, 3Sacre-Coeur Hospital, Montreal, QC, Canada.

7:30 AM–9:45 AM  PLATFORM SESSION IV—Salon A
Mechanisms III
Chairs: Marianne Barrier, Texas A&M University and Thomas B. Knudsen, University of Louisville

7:30 AM–7:45 AM  43  Risk of Limb Deficiency Defects Associated with NAT1, NAT2, GSTT1, GSTM1 and NOS3 Genetic Variants, Maternal Smoking, and Vitamin Supplement Intake
Carmichael SL1, Shaw GM2, Yang W1, Iovannisci D2, Lammer EJ. 1March of Dimes / California Birth Defects Monitoring Program, Berkeley, CA, United States, 2Children’s Hospital Research Institute, Oakland, CA, United States.

7:45 AM–8:00 AM  44  A Genomic Approach to Hyperthermia-Induced Neural Tube Defects
Barrier M, MO Q, Vannucci M, Mirkes PE. Texas A&M University, College Station, TX, United States.

8:00 AM–8:15 AM  45  Hydroxyurea (HU) Induces 4-Hydroxy-2-Nonenal (4HNE) Protein Adducts in Organogenesis Stage Mouse Embryos
Yan JY, Hales BH. McGill University, Montreal, QC, Canada.

8:15 AM–8:30 AM  46  Integrative Analysis of the Mouse Embryonic Transcriptome
Singh AV, Zhang Y, Knudsen KB, Rouchka EC, Knudsen TB. University of Louisville, Louisville, KY, United States.

8:30 AM–8:45 AM  47  MicroRNA Gene Expression During Early Postimplantation Mouse Development
Barrier M1, Dugas DY2,3, Shelton J, Ford LP, Mirkes PE. 1Texas A&M University, College Station, TX, United States, 2Ambion, Inc, Austin, TX, United States, 3Rice University, Houston, TX, United States.
### 8:45 AM–9:00 AM
**48** Teratogen-Induced Activation of p53 Signaling Pathways in Day 9 Mouse Embryos  
Hosako H, Watson EM, Mirkes PE. Texas A&M University, College Station, TX, United States.

### 9:00 AM–9:15 AM
Break

### 9:15 AM–9:30 AM
**49** Heat Shock Protein 70 (Hsp70) Protects Embryos from Teratogen-Induced Exencephaly: Analysis Using Hsp70 Null Mice  
Barrier M¹, Gil S², Faske JB¹, Watson EM¹, Mirkes PE¹.  
¹Texas A&M University, College Station, TX, United States,  
²University of Washington, Seattle, WA, United States.

### 9:30 AM–9:45 AM
**50** A System Based Approach to Identify Potential Signalling Pathways During Gonad Development from Microarray Data  
Yu X¹, Griffith WC¹, Hanspers K², Ong H¹, Faustman EM¹.  
¹Dept. of Environmental and Occupational Health Sciences, University of Washington, Seattle, WA, United States,  
²GenMAPP Development Team, Bioinformatics Research Associate, San Francisco, CA, United States.

### 7:30 AM–10:30 AM
**THYROID HORMONE AND BRAIN DEVELOPMENT: BASIC BIOLOGY, TOXICOLOGY, AND PUBLIC HEALTH SYMPOSIUM**—Catalina Ballroom  
Chairs: Jerry Heindel, National Institute of Environmental Health Sciences and R. Thomas Zoeller, University of Massachusetts  
Sponsored by the National Institute of Environmental Health Sciences

#### 7:30 AM–8:10 AM
**S48** Thyroid Hormone and Brain Development  
Speaker: Joanne Rovet, The Hospital for Sick Children

#### 8:10 AM–8:50 AM
**S49** Genetic Analysis of Thyroid Hormone Action During Brain Development  
Speaker: Frederic Flamant, Ecole Normale Superieure de Lyon

#### 8:50 AM–9:10 AM
Break

#### 9:10 AM–9:50 AM
**S50** Environmental Factors That Alter Thyroid Hormone Signaling  
Speaker: R. Thomas Zoeller, University of Massachusetts

#### 9:50 AM–10:30 AM
**S51** Thyroid Hormone and Public Health  
Speaker: James Haddow, Women and Infants Hospital of Rhode Island

### 11:00 AM–2:00 PM
**COUNCIL II MEETING**—Executive Board Room