# Program Agenda

*(as of 6/6/13)*

## FRIDAY, JUNE 21, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>3:00 PM–6:00 PM</td>
<td>REGISTRATION—Grand Ballroom Foyer</td>
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<tr>
<td>3:00 PM–6:00 PM</td>
<td>SPEAKER READY ROOM OPEN—Coronado Room</td>
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<tr>
<td>3:00 PM–6:00 PM</td>
<td>COUNCIL 1A MEETING—Executive Boardroom</td>
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## SATURDAY, JUNE 22, 2013

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>7:00 AM–6:00 PM</td>
<td>REGISTRATION—Grand Ballroom Foyer</td>
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<tr>
<td>7:00 AM–6:00 PM</td>
<td>SPEAKER READY ROOM OPEN—Coronado Room</td>
</tr>
<tr>
<td>7:30 AM–8:00 AM</td>
<td>EDUCATION COURSE: COFFEE AND CONTINENTAL BREAKFAST—Salon B</td>
</tr>
<tr>
<td>8:00 AM–12:45 PM</td>
<td>EDUCATION COURSE SESSION 1 <em>(Separate Registration Required)</em>—Salon B</td>
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### Principles of Teratology

*Organized by the Education Committee, Chairperson, Ali S. Faqi, MPI Research*

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00 AM–8:10 AM</td>
<td>Welcome</td>
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<td><em>Edward W. Carney, Teratology Society President</em></td>
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<tr>
<td>8:10 AM–8:40 AM</td>
<td>Narsingh Agnish Fellow Lecture</td>
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<td><em>James L. Scharlein, Consultant</em></td>
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<tr>
<td>8:40 AM–8:45 AM</td>
<td>Course Overview</td>
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<tr>
<td></td>
<td><em>Education Committee Chairperson, Ali S. Faqi, MPI Research</em></td>
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<tr>
<td>8:45 AM–9:30 AM</td>
<td>Timeline of Important Events for Embryo-Fetal Development</td>
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<td><em>John M. DeSesso, Exponent</em></td>
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<tr>
<td>9:30 AM–10:15 AM</td>
<td>Direct and Indirect Developmental Toxicity: Maternal, Placental, and Fetal Considerations [CME]</td>
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<td><em>John M. Rogers, US Environmental Protection Agency</em></td>
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<tr>
<td>10:15 AM–10:30 AM</td>
<td>Break</td>
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<tr>
<td>10:30 AM–11:15 AM</td>
<td>Teratogenic Mechanisms, Pathways, and Processes [CME]</td>
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<td><em>Thomas B. Knudsen, US Environmental Protection Agency</em></td>
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<tr>
<td>11:15 AM–12:00 Noon</td>
<td>Contemporary Practices in Core Development Toxicity Assessments [CME]</td>
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<td></td>
<td><em>Ali S. Faqi, MPI Research</em></td>
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<tr>
<td>12:00 Noon–12:45 PM</td>
<td>Detecting Signals of Concern in the Human Population [CME]</td>
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<td><em>Christina D. Chambers, University of California San Diego</em></td>
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</table>
12:45 PM–1:45 PM  LUNCH ON YOUR OWN

1:45 PM–5:30 PM  EDUCATION COURSE SESSION 2 (Separate Registration Required)—Salon B

Advanced Technologies in Prenatal and Postnatal Screening and Diagnosis from Basic Science to Clinical Applications

Organized by the Education Committee, Chairperson, Ali S. Faqi, MPI Research

1:45 PM–1:50 PM  Course Overview
Education Committee Chairperson, Ali S. Faqi, MPI Research

1:50 PM–2:35 PM  Physics and Chemistry of Imaging: A Novice's Guide  **CME**
Michael A. Schellpfeffer, Medical College of Wisconsin

2:35 PM–3:20 PM  Designer Babies: Are We There Yet in IVF and Genetics?  **CME**
Elizabeth E. Puscheck, Wayne State University

3:20 PM–3:35 PM  Break

3:35 PM–4:20 PM  Science and Application of Metabolic Disease Screening/Evaluation of Maternal Thyroid Function during Pregnancy and Screening for Congenital Hypothyroidism  **CME**
Sarah G. Obican, Columbia University

4:20 PM–5:05 PM  Biomarkers for Preeclampsia  **CME**
Sarosh Rana, Beth Israel Deaconess Medical Center

5:05 PM–5:30 PM  Discussion

5:30 PM–6:30 PM  CONSTITUTION AND BYLAWS COMMITTEE MEETING—Santa Rita

6:00 PM–8:00 PM  STUDENT/POSTDOCTORAL FELLOW MIXER—Bill's Grill

6:30 PM–9:30 PM  COUNCIL 1B MEETING AND COMMITTEE REPORTS/LEADERSHIP TRAINING—Executive Boardroom

SUNDAY, JUNE 23, 2013

7:00 AM–8:00 AM  DINE WITH A TERATOLOGY AMBASSADOR (Advanced Signup Required)

7:00 AM–8:00 AM  SCIENCE COMMITTEE MEETING—Executive Boardroom

7:00 AM–8:00 AM  STUDENT AFFAIRS COMMITTEE MEETING—Santa Rita

7:00 AM–6:00 PM  REGISTRATION—Grand Ballroom Foyer

7:00 AM–6:00 PM  SPEAKER READY ROOM OPEN—Coronado Room

8:30 AM–8:45 AM  PRESIDENT'S WELCOME—Salon B
Edward W. Carney, The Dow Chemical Company

8:45 AM–9:30 AM  TS/OTIS JOINT JOSEF WARKANY LECTURE—Salon B
A Random Walk through Teratology (I1)  **CME**
Chairperson: Edward W. Carney, The Dow Chemical Company
Lecturer: Robert J. Kavlock, US Environmental Protection Agency
9:30 AM–12:00 Noon

STUDENT/POSTDOCTORAL FELLOW PLATFORM SESSION 1—Salon B

Organized by the Student Affairs Committee
Chairpersons: Jeff Charlap, WIL Research and Stephen B. Harris, Stephen B. Harris Group

Presenting author is underlined.

9:30 AM–9:45 AM
Introduction
Student Affairs Committee Chairperson, Jeff Charlap, WIL Research

9:45 AM–10:00 AM
1 A Neurodevelopmental Human In Vitro 3-D Model for the Assessment of Gene/Environment Interactions
Pamies D1, Bressler J1,2, Makri G3, Smirnova L1, O’Driscoll C, Harris G1, Song H1, Hartung T1, Hogberg HT1. 1Center for Alternatives to Animal Testing, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, 2Hugo Moser Institute at the Kennedy Krieger, Johns Hopkins University, Bloomberg School of Public Health, Baltimore, MD, United States, 3Institute for Cell Engineering, Department of Neurology, Johns Hopkins University, School of Medicine, Baltimore, MD, United States.

10:00 AM–10:15 AM
2 Dynamic Testicular Coculture Captures Key Processes of Male Reproductive Development Including Testosterone Production and Early Meiosis

10:15 AM–10:30 AM
3 Hydroxyurea Exposure during Mouse Organogenesis Perturbs the Embryonic Redox Potential
Schlisser AE, Hales BF. McGill University, Montreal, QC, Canada.

10:30 AM–10:45 AM
4 Evaluation of a Redox-Sensitive Predictive Model of Mouse Embryonic Stem Cell Differentiation Using Multiple Differentiation Markers and Windows of Development
Chandler KJ1, Hansen JM2, Knudsen TB1, Hunter ES1. 1US Environmental Protection Agency, Research Triangle Park, NC, United States, 2Emory University School of Medicine, Atlanta, GA, United States.

10:45 AM–11:00 AM
Break

11:00 AM–11:15 AM
5 Increased Nuclear Sphingoid Base-1-Phosphates and HDAC Inhibition after Fumonisn and FTY720-Treatment: The Link between Epigenomic Modifications and Neural Tube Defects?
Gardner NM1, Sachs AJ1, Riley RT1, Maddox JR1, Gelineau-van Waes J1. 1Department of Pharmacology, Creighton University School of Medicine, Omaha, NE, United States, 2USDA-ARS, Toxicology and Mycotoxin Research Unit, R.B. Russell Research Center, Athens, GA, United States.

11:15 AM–11:30 AM
6 Correlative and Predictive Values of First-Trimester Urinary Phenol and Phthalate Concentrations from Two Boston-Based Prospective Birth Cohorts
LaRocca JL1,3, Binder AM2, Carwile JL2, Calafat AM1, Michels KB2. 1Harvard University Center for the Environment, Cambridge, MA, United States, 2Department of Epidemiology, Harvard School of Public Health, Boston, MA, United States, 3Obstetrics and Gynecology Epidemiology Center, Department of Obstetrics and Gynecology, Brigham and Women’s Hospital, Boston, MA, United States, ‘National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA, United States.

11:30 AM–11:45 AM
7 Invasion of Listeria monocytogenes Strains in a Human Trophoblast Cell Line (BeWo)
Wadhwa Desai R, Amosu M, Smith MA. University of Georgia, Athens, GA, United States.

11:45 AM–12:00 Noon
8 Epigenetic Regulation of MicroRNAs in Fetal Neural Stem Cells: Uncovering Novel Mechanisms of Ethanol Teratology
Balaraman S, Doan R, Dinot S, Miranda R. Texas A&M Health Science Center, College of Medicine, Department of Neuroscience and Experimental Therapeutics, Bryan, TX, United States.
12:00 Noon–1:00 PM  LUNCH ON YOUR OWN

12:00 Noon–1:00 PM  2014 PROGRAM COMMITTEE MEETING—Executive Boardroom

12:00 Noon–1:00 PM  F. CLARKE FRASER AND SERVICE AWARDS COMMITTEE MEETING—Santa Rita

1:00 PM–1:30 PM  F. CLARKE FRASER NEW INVESTIGATOR AWARD—Salon B
Diabetic Embryopathy: Unique Models for Revealing the Mechanism Underlying Structural Birth Defects (L2) (CME)
Chairperson: Ludmila Bakhireva, University of New Mexico
Lecturer: Peixin Yang, University of Maryland

1:30 PM–2:00 PM  JAMES G. WILSON PUBLICATION AWARD—Salon B
Bone Morphogenetic Proteins Regulate Hinge Point Formation during Neural Tube Closure by Dynamic Modulation of Apicobasal Polarity
Chairperson: L. David Wise, Merck Research Laboratories
Lecturer: Seema Agarwala, University of Texas

2:00 PM–3:00 PM  TS/NBTS JOINT ELSEVIER DISTINGUISHED LECTURER—Salon A
Placental Serotonin, Developmental Programming, and the Fetal Brain (L3) (CME)
Chairperson: Charles V. Vorhees, Cincinnati Children’s Research Foundation
Lecturer: Pat Levitt, Southern California University

3:00 PM–6:30 PM  TS/NBTS JOINT SYMPOSUM—Salon A
Prenatal Origins of Neuropsychiatric Disorders
Chairperson: Charles V. Vorhees, Cincinnati Children’s Research Foundation

3:00 PM–3:45 PM  S1 Prenatal Infection in Schizophrenia and Other Neuropsychiatric Disorders (CME)
Alan S. Brown, New York Psychiatric Institute and Columbia University

3:45 PM–4:30 PM  S2 Using Animal Models to Study Effects of Prenatal Infection on Brain Development and Behavior Relevant to Psychiatric Disorders (CME)
Patricia Boksa, McGill University

4:30 PM–5:00 PM  Break

5:00 PM–5:45 PM  S3 Prenatal Human Influenza Viral Infection and Brain Disorder in Mouse: Relevance for Genesis of Schizophrenia (CME)
S. Hossein Fatemi, University of Minnesota

5:45 PM–6:30 PM  S4 Imaging Early Childhood Brain Development: Implications for Schizophrenia (CME)
John H. Gilmore, University of North Carolina, Chapel Hill

3:00 PM–6:30 PM  ADVERSE OUTCOME PATHWAYS (AOPS) IN PREDICTIVE TOXICOLOGY SYMPOSUM—Salon B
Organized in conjunction with the Scientific Liaison Coalition
Chairpersons: Thomas B. Knudsen and Nisha S. Sipes, US Environmental Protection Agency

3:00 PM–3:45 PM  S5 Adverse Outcome Pathways and Their Unifying Role in Developmental Toxicology (CME)
Kevin Crofton, US Environmental Protection Agency

3:45 PM–4:30 PM  S6 Key Events within AOPs Relevant to Developmental and Reproductive Toxicity
George P. Daston, The Procter & Gamble Company
SUNDAY

4:30 PM–5:00 PM  Break

5:00 PM–5:45 PM  S7 Adverse Outcome Pathways in Computational Toxicology  
Nicole C. Kleinstreuer, US Environmental Protection Agency

5:45 PM–6:30 PM  S8 Application of Adverse Outcome Pathway Approaches to Improve Reproductive and Developmental Toxicity Safety  
Edward W. Carney, The Dow Chemical Company

6:30 PM–8:30 PM  TS/NBTS WELCOME RECEPTION AND EXHIBITS OPEN—Kiva Ballroom

8:30 PM–9:30 PM  MEMBERSHIP COMMITTEE MEETING—Santa Rita

MONDAY, JUNE 24, 2013

7:00 AM–8:00 AM  BDBR EDITORIAL BOARD MEETING—Executive Boardroom

7:00 AM–8:00 AM  DINE WITH A TERATOLOGY AMBASSADOR (Advanced Signup Required)

7:00 AM–8:00 AM  FINANCE COMMITTEE MEETING—Santa Rita

7:00 AM–6:00 PM  REGISTRATION—Grand Ballroom Foyer

7:00 AM–6:00 PM  SPEAKER READY ROOM OPEN—Coronado Room

8:00 AM–8:30 AM  THALIDOMIDE ARCHIVE—Salon B

8:30 AM–9:00 AM  TS/OTIS JOINT ROBERT L. BRENT LECTURE: TERATOGEN UPDATE—Salon B
Noninvasive Prenatal Diagnosis (NIPD) Using Cell-Free Fetal DNA (L7)  
Chairperson: Edward W. Carney, The Dow Chemical Company
Lecturer: Joe Leigh Simpson, March of Dimes Foundation

9:00 AM–12:00 noon  PLATFORM SESSION 2—Catalina Ballroom
Molecular and Cellular Mechanisms of Abnormal Development
Chairpersons: Carolyn Kapron, Trent University and Louise M. Winn, Queen’s University
Presenting author is underlined.

9:00 AM–9:15 AM  Introduction

9:15 AM–9:30 AM  9 Evaluation of Signaling Pathway Perturbation Using a Kinase Inhibitor Chemical Library in Mouse Embryonic Stem Cells ACDC Assay  

9:30 AM–9:45 AM  10 Inhibition of Glutathione Biosynthesis Alters Compartmental Redox Status and the Thiol Proteome in Organogenesis-Stage Rat Conceptuses  
Hansen JM', Harris C', Gomez RR', Schuster DZ', Sant KE', Pohl J', Reed M'. 1Emory University, Atlanta, GA, United States, 2University of Michigan, Ann Arbor, MI, United States, 3Center for Disease Control and Prevention, Atlanta, GA, United States.

9:45 AM–10:00 AM  11 Valproic Acid Causes p53 Hyperacetylation and Inhibits Activation of the Autophagy Inhibitor mTOR in Murine Limb Buds  
Paradies FH'. Hales BF. McGill University, Montreal, QC, Canada.

10:00 AM–10:15 AM  Break

10:15 AM–10:30 AM  12 A Proposed Mechanism for Thalidomide-Induced Limb Malformations  
Scott WJ. Children’s Hospital Research Foundation, Cincinnati, OH, United States.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:30 AM–10:45 AM</td>
<td>A Comparative Assessment of Maternal Reproductive Parameters, Fetal Viability, and Hypertension with Surgical and Nonsurgical Models of Preeclampsia in the Sprague-Dawley Rat. Toth JD, Coder PS, Gleason TR, Edwards TR, Moehle RM, Loris SM, Reho JF. WIL Research Laboratories, Ashland, OH, United States, University of Maryland, Baltimore, Department of Medicine, Division of Cardiology, Baltimore, MD, United States.</td>
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<tr>
<td>10:45 AM–11:00 AM</td>
<td>In Utero Caffeine Exposure Alters DNA Methylation Patterns and Gene Expression in Hearts. Fang X, Rivkees SA, Wendler CC. University of Florida, Gainesville, FL, United States.</td>
</tr>
<tr>
<td>11:00 AM–11:15 AM</td>
<td>The Splotch Allele Increases Sensitivity to NTDs Produced by High Doses of Arsenite and Cadmium Individually but Not to NTDs Caused by Lower Doses of Both in Combination: Implications for Mechanisms of Action. Machado AF, Haynh FK, Chung YE. Environmental and Occupational Health, California State University, Northridge, Northridge, CA, United States.</td>
</tr>
<tr>
<td>11:30 AM–11:45 AM</td>
<td>Decreased Reproduction in Mice from Tap Water Exposure in a Facility Using QAC Disinfectants. Hrubec TC, Sugrue JE. Via College of Osteopathic Medicine, Blacksburg, VA, United States, VA-MD Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, VA, United States.</td>
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<td>11:45 AM–12:00 noon</td>
<td>Discussion</td>
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9:00 AM–12:30 PM TS/OTIS JOINT ILSI HESI SYMPOSIUM—Salon B
Communication of Risk for Medication Use in Pregnancy and Lactation
Chairpersons: Christina D. Chambers, University of California, San Diego, Jane Stewart, AstraZeneca Pharmaceuticals, and Melissa S. Tassinari, US Food and Drug Administration

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<tr>
<th>Time</th>
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<tr>
<td>9:00 AM–9:05 AM</td>
<td>Introduction. Melissa S. Tassinari, US Food and Drug Administration</td>
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<td>9:50 AM–10:00 AM</td>
<td>Questions for Speakers</td>
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<tr>
<td>10:00 AM–10:15 AM</td>
<td>Break</td>
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Where Do the Data Come From?

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<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>10:15 AM–10:30 AM</td>
<td>Maximizing the Value of the Nonclinical Data for Evaluation of Risk in Pregnancy and Lactation. Susan Bielmeier Laffan, GlaxoSmithKline Pharmaceuticals</td>
</tr>
<tr>
<td>10:45 AM–11:00 AM</td>
<td>Electronic Health Records and Beyond: Exploring Innovative New Data Sources. Sara H. Riordan, Lifetech</td>
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</tbody>
</table>
11:00 AM–11:10 AM   Questions for Speakers

**Communication of Reproductive Risk**

11:10 AM–11:25 AM   S15  Using Animal and Human Data to Communicate Risk: Perspectives of a Clinician
Lisa L. Mathis, Amgen

11:25 AM–11:40 AM   S16  Putting the Risk in Context: Communicating the Impact of the Underlying Disease Condition and Pharmacotherapy during Pregnancy
Katherine L. Wisner, Northwestern University

11:40 AM–11:55 AM   S17  How Is Risk Perceived amongst Patients?
Sarah G. Obican, Columbia University

11:55 AM–12:05 PM   Questions for Speakers

12:05 PM–12:30 PM   Panel Discussion

12:30 PM–1:30 PM   LUNCH ON YOUR OWN

12:30 PM–1:30 PM   PAST PRESIDENTS’ AND HONOREES’ LUNCHEON (By Invitation Only)—Santa Rita

1:30 PM–3:45 PM   PLATFORM SESSION 3—Catalina Ballroom

Hazard Assessment, Risk Characterization, and Risk Management of Pre- and Postnatal Impacts on Development
Chairpersons: Linda G. Roberts, Chevron Energy Technology Company and Jason Stanko, National Institute of Environmental Health Sciences

Presenting author is underlined.

1:30 PM–1:45 PM   Introduction

1:45 PM–2:00 PM   18  Time Course for Onset and Recovery of Effects of a Novel Male Reproductive Toxicant: Implications for Apical Preclinical Study Designs
Stewart J. AstraZeneca Pharmaceuticals, Macclesfield, United Kingdom.

2:00 PM–2:15 PM   19  Developmental Immunotoxicity Testing for Hazard Identification
Tonk ECM1,2, Verhoef A1, van Loveren H1,2, Piersma AH1,2. 1RIVM, Bilthoven, Netherlands, 2Maastricht University, Maastricht, Netherlands.

2:15 PM–2:30 PM   20  Dose Response of *Listeria monocytogenes* Invasion and Fetal Mortality during Pregnancy
Roulo RM, Fishburn JD, Smith MA. University of Georgia, Athens, GA, United States.

2:30 PM–2:45 PM   21  Effects of Developmental PCB Exposure on Energy Metabolism in Mice from 3 Months to 12 Months of Age

2:45 PM–3:00 PM   22  MicroPET/CT Imaging of [18F]-FEPPA in the Nonhuman Primate: A Potential Biomarker of Pathogenic Processes Associated with Anesthetic-Induced Neurotoxicity
Slikker Jr. W1, Zhang X1, Pauls MG1, Newport GD1, Liu F1, Callicott R1, Liu S2, Berridge MP1, Wang CS. 1National Center for Toxicological Research, US Food and Drug Administration, Jefferson, AR, United States, 23D Imaging, LLC, Little Rock, AR, United States, 3University of Arkansas for Medical Sciences, Little Rock, AR, United States.
3:00 PM–3:15 PM  23 Preliminary Results from Prenatal Toxicity Study of Oxybenzone in Rats
Inselman AL1, Nakamura N1, McIntyre B2, Foster PMD2, Harrouk W3, Hansen DK1. 1US FDA/NCTR, Jefferson, AR, United States, 2NTP/NIEHS, Research Triangle Park, NC, United States, 3US FDA/CDER, Silver Spring, MD, United States.

3:15 PM–3:30 PM  24 Preventing Birth Defects: It Is About Time!
Brent RL, Oakley GP. Alfred I. duPont Hospital for Children, Wilmington, DE, United States.

3:30 PM–3:45 PM  Discussion

1:30 PM–6:00 PM  TS/NBTS JOINT SYMPOSIUM—Salon A
Honoring the Legacy of Dr. Patricia M. Rodier
Chairpersons: Chris Stodgell, University of Rochester and Charles V. Vorhees, Cincinnati Children's Research Foundation

1:30 PM–1:45 PM  Memories of Patricia M. Rodier
Richard E. Butcher

1:45 PM–2:30 PM  S18 Manganese Neurotoxicity: From Worms to Neonates
Michael Aschner, Vanderbilt University

2:30 PM–3:15 PM  S19 Cross-Species Comparisons of the Effects of Developmental Methylmercury Exposure: An Update of a Collaborative Project with Dr. Patty Rodier
Thomas Burbacher, University of Washington

3:15 PM–4:00 PM  S20 Teratology of Autism: From Animal Models to Endophenotypes
Chris J. Stodgell, University of Rochester

4:00 PM–4:30 PM  Break

4:30 PM–5:15 PM  S21 Thalidomide, Moebius Sequence, and Misoprostol: Pieces to the Autism Puzzle
Marilyn T. Miller, University of Illinois

5:15 PM–6:00 PM  S22 Syndromes and the Study of Autism
Tara L. Wenger, Children's Hospital of Philadelphia

1:30 PM–6:00 PM  TS/OTIS JOINT PREGNANCY REGISTRY WORKSHOP—Salon B
Pregnancy Registry Designs That Involve Multiple Drugs for Similar Indications: Advantages, Disadvantages, and Sustainable Funding Models
Chairpersons: Vincent T. Armenti, NTPR, Gift of Life Institute and Lee S. Cohen, Massachusetts General Hospital

1:30 PM–1:40 PM  Introduction and Overview
Lewis B. Holmes, MassGeneral Hospital for Children

1:40 PM–2:00 PM  W1 Pregnancy Registry Designs for Multiple Drugs for Similar Medications: North American AED (Antiepileptic Drug) Pregnancy Registry
Lewis B. Holmes, MassGeneral Hospital for Children

2:00 PM–2:20 PM  W2 The National Pregnancy Registry for Atypical Antipsychotics: Effects of Fetal Exposure on Risk for Congenital Malformations and Maternal/Newborn Outcomes
Lee S. Cohen, Massachusetts General Hospital

2:20 PM–2:40 PM  W3 Celebrating 20 Years: The Antiretroviral Pregnancy Registry
Susan Sinclair Roberts, INC Research

2:40 PM–3:00 PM  W4 National Transplantation Pregnancy Registry
Vincent T. Armenti, NTPR, Gift of Life Institute

3:00 PM–3:30 PM  W5 Is a Multisite Model for Collaboration across Investigators Feasible for a Single Multidrug Registry
Gideon Koren, The Hospital For Sick Children
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<th>Time</th>
<th>Session/Panel</th>
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<tbody>
<tr>
<td>3:30 PM–4:00 PM</td>
<td>W6 How Should Classes of Medications Be Prioritized for Multidrug Approaches and How Can Generics Be Incorporated into These Efforts?</td>
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<td>Melissa S. Tassinari, US Food and Drug Administration</td>
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<td>4:00 PM–4:15 PM</td>
<td>Break</td>
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<td>4:15 PM–4:45 PM</td>
<td>W7 Utility of Multidrug Disease-Based Pregnancy Registries to Inform Clinical Management Guidelines</td>
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<td>Cheryl S. Broussard, Centers for Disease Control and Prevention</td>
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<td>4:45 PM–5:00 PM</td>
<td>Discussion</td>
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<td>5:00 PM–5:15 PM</td>
<td>W8 The Savella® (Milnacipran) Pregnancy Registry: Interim Analysis and Enrollment Challenges</td>
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<td>Hirsch DK¹, Sinclair Roberts S², Brown VD³, Palmer R¹, McLean F¹, Leclair D¹,</td>
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<td>¹Forest Research Institute, Jersey City, NJ, United States, ²INC Research, LLC, Division of Post-Approval and Strategic Services, Wilmington, NC, United States, ³University of North Carolina Wilmington, Wilmington, NC, United States.</td>
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<tr>
<td>5:15 PM–5:30 PM</td>
<td>W9 Trends in Postmarketing Commitments for Pregnancy Registries in the Five Years since FDAAA</td>
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<td>Covington D, McKain L, Pharmaceutical Product Development, Inc., Wilmington, NC, United States.</td>
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<tr>
<td>5:30 PM–5:45 PM</td>
<td>W10 Adverse Developmental Events Reported to US FDA in Association with Maternal Use of Topiramate in Pregnancy</td>
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<tr>
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<td>Tabacova S, Szarfman A, US Food and Drug Administration, Silver Spring, MD, United States.</td>
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<td>5:45 PM–6:00 PM</td>
<td>Discussion</td>
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<tr>
<td>6:00 PM–8:00 PM</td>
<td>TS/NBTS/OTIS JOINT POSTER SESSION 1 AND EXHIBITS OPEN—Kiva Ballroom</td>
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<td></td>
<td>Teratology Society Posters (Including the National Children’s Study Update): P1–P18</td>
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<td>NBTS Posters: P1–P18</td>
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<td>OTIS Posters: 1–6</td>
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<tr>
<td>8:00 PM–10:30 PM</td>
<td>TS/MARTA STUDENT CAREER EVENT—Upper Terrace</td>
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**MONDAY**

**TUESDAY, JUNE 25, 2013**

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<tr>
<th>Time</th>
<th>Session/Panel</th>
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<tr>
<td>6:30 AM–7:00 AM</td>
<td>SUNRISE MINI COURSE: COFFEE AND CONTINENTAL BREAKFAST—Salon B (For Sunrise Mini Course Registrants)</td>
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<tr>
<td>6:30 AM–5:00 PM</td>
<td>SPEAKER READY ROOM OPEN—Coronado Room</td>
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<tr>
<td>7:00 AM–5:00 PM</td>
<td>REGISTRATION—Grand Ballroom Foyer</td>
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<tr>
<td>7:00 AM–8:00 AM</td>
<td>DINE WITH A TERAETOLOGY AMBASSADOR (Advanced Signup Required)</td>
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<tr>
<td>7:00 AM–8:30 AM</td>
<td>SUNRISE MINI COURSE (Separate Registration Required)—Salon B</td>
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<td>Advanced Technologies in Genetics and Genomics: Applications to the Prevention of Birth Defects and the Communication of Risk</td>
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<td>Organized by the Education Committee, Chairperson, Ali S. Faqi, MPI Research</td>
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<tr>
<td>7:00 AM–7:45 AM</td>
<td>Current Technologies in Genetic Testing</td>
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<td>Maximilian Muenke, National Human Genome Research Institute, NIH</td>
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<tr>
<td>7:45 AM–8:30 AM</td>
<td>Applications of Technologies and Communication of Risk</td>
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<td>Elaine M. Faustman, University of Washington</td>
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</tbody>
</table>
8:30 AM–9:15 AM  SPECIAL LECTURE—Salon B
Clinical and Molecular Teratology
Chairperson: Elaine Z. Francis, Sandcastle Toxicology Associates
Lecturer: Michel Vekemans, Université Paris Descartes

9:15 AM–12:25 PM  WILEY–BLACKWELL SYMPOSIUM—Salon B
Application of Imaging Technologies in Birth Defects Research and Clinical Practice
Chairpersons: Ali S. Faqi, MPI Research and Susan L. Makris, US Environmental Protection Agency
Endorsed by the Publications Committee

9:15 AM–9:50 AM  S23 Visualizing Complex Cell Dynamics in the Living Embryo
Paul M. Kulesa, Stowers Institute for Medical Research

9:50 AM–10:25 AM  S24 Imaging Modalities for High-Throughput Phenotyping of Structural Birth Defects in Mutagenized Fetal and Newborn Mice
Kimimasa Tobita, Children's Hospital of University of Pittsburgh Medical School

10:25 AM–10:40 AM  Break

10:40 AM–11:15 AM  S25 Ultrasound Imaging in Research and Clinical Medicine
Michael A. Schellpfeffer, Medical College of Wisconsin

11:15 AM–11:50 AM  S26 Advances in Micro-CT Imaging for Preclinical Developmental Toxicology Evaluation
L. David Wise, Merck Research Labs

11:50 AM–12:25 PM  S27 Brain Imaging Studies on Early Brain Development in Children with Prenatal Nicotine Exposure
Linda Chang, John A. Burns School of Medicine, University of Hawaii

12:25 PM–1:30 PM  LUNCH ON YOUR OWN

12:30 PM–1:30 PM  PUBLIC AFFAIRS COMMITTEE MEETING—Executive Boardroom

12:30 PM–1:30 PM  PUBLICATIONS COMMITTEE MEETING—Santa Rita

1:30 PM–2:45 PM  TS/ETS EXCHANGE LECTURE—Salon B
Myth or Merit: The Use of a Second Species in Developmental Toxicity Testing
Chairperson: Graham P. Bailey, Janssen Pharmaceutical N.V.

European Teratology Society
More Safe Drugs by Less In Vivo Testing? (L4)
Georg Schmitt, Hoffmann-LaRoche

Teratology Society
Screening Environmental Agents (L5)
Susan L. Makris, US Environmental Protection Agency
2:45 PM–5:30 PM  PLATFORM SESSION 4—Catalina Ballroom

In Vitro, Computational, and Alternative Methods and Models for Screening Developmental Toxicants
Chairpersons: Susan Euling, US Environmental Protection Agency and Michael F. O’Hara, Covance Laboratories, Inc.

Presenting author is underlined.

2:45 PM–3:00 PM  Identification of Pathways of Developmental Neurotoxicity by Metabolomics in a 3-D Organotypic Brain Cell Model Exposed to Lead Chloride
Hogberg HT1, Bouhifd M1, Dao T1, Harris G1, Kleinsang A1, Nolan SJ1, Odwin-DaCosta S1, Pamies D1, Smirnova L1, van Vliet E1, Welles F1, Zhao L1, Hartung T1. 1The Johns Hopkins University, Bloomberg School of Public Health, Center for Alternatives to Animal Testing, Baltimore, MD, United States, 2University of Barcelona, Fetal and Perinatal Medicine Research Group, August Pi i Sunyer Biomedical Research Institute, Hospital Clinic, Barcelona, Spain.

3:00 PM–3:15 PM  Computational Embryology and Predictive Toxicology of Cleft Palate
Sipes NS1, Hutson MS2, Baker NC1, Knudsen TB1. 1US EPA/ORD/NCCT, Research Triangle Park, NC, United States, 2Departments of Physics and Astronomy and Biological Sciences, Vanderbilt University, Nashville, TN, United States.

3:15 PM–3:30 PM  Effects of Perfluorinated Chemicals on Adipocyte Development

3:30 PM–3:45 PM  The Use of Genetic Model Systems for Assessing Environmental Effects on Reproduction
Kleinstreuer N1, Knudsen T1, Colaiacovo M1, Allard P1, NCCT, US EPA, Research Triangle Park, NC, United States, 2Harvard Medical School, Boston, MA, United States, 3UCLA, Los Angeles, CA, United States.

3:45 PM–4:00 PM  Break

4:00 PM–4:15 PM  The Use of Genetic Model Systems for Assessing Environmental Effects on Reproduction
Kleinstreuer N1, Knudsen T1, Colaiacovo M1, Allard P1, NCCT, US EPA, Research Triangle Park, NC, United States, 2Harvard Medical School, Boston, MA, United States, 3UCLA, Los Angeles, CA, United States.

4:15 PM–4:30 PM  Effects of Bulk- and Nano-Vitamin A in Postimplantation Rat Embryos Cultured In Vitro
Di Renzo F, Bacchetta R, Menegola E. Università degli Studi di Milano, Milano, Italy.

4:30 PM–4:45 PM  Teratogenic Effects of Mixtures of Azole Fungicides Assessed by Using a New Dysmorphogenic Method for Branchial Arch Defects Evaluation
Menegola E, Di Renzo F. Università degli Studi di Milano, Milan, Italy.

4:45 PM–5:00 PM  Triazole-Induced Gene Expression Changes in the Zebrafish Embryo
Hermens SAB1,2, Prisk T1,2, van der Brandhof EJ1, van der Ven LT1,2, Piersma AH1,3, RIVM, Bilthoven, Netherlands, 4MaastrichtUniversity, Maastricht, Netherlands, 4IRAS, Utrecht, Netherlands.

5:00 PM–5:15 PM  Interactive Effects of Methylmercury and Other Stressors: Daphnia pulex As an Alternative Model Organism for Early-Life Exposures
Gohlke JM, Doke D. University of Alabama at Birmingham, Birmingham, AL, United States.

5:15 PM–5:30 PM  Discussion

2:45 PM–5:30 PM  TS/OTIS JOINT SYMPOSIUM—Salon B

Cancer and Pregnancy: Considerations regarding the Use of Chemotherapy
Chairpersons: Kembra Howdeshell and Michael Shelby, National Toxicology Program, NIEHS

2:45 PM–2:50 PM  Introduction
Kembra Howdeshell, National Toxicology Program, NIEHS

2:50 PM–3:20 PM  Prenatal Care for the Pregnant Cancer Patient
Elyce H. Cardonick, Cooper Health System
3:20 PM–3:50 PM  S29  Detection and Administration of Systemic Therapies for Breast Cancer during Pregnancy
Jennifer K. Litton, University of Texas MD Anderson Cancer Center

3:50 PM–4:05 PM  Break

4:05 PM–4:35 PM  S30  Summary of National Toxicology Program Monograph on Developmental Effects of Cancer Chemotherapy Administered during Pregnancy
Kembra Howdeshell, National Toxicology Program, NIEHS

4:35 PM–5:05 PM  S31  Oncofertility: Expanding the Parenthood Options for Life after Cancer
Laxmi A. Kondapalli, University of Colorado, Anschutz Medical Campus

5:05 PM–5:30 PM  Discussion

5:30 PM–7:30 PM  TS/OTIS JOINT POSTER SESSION 2 AND EXHIBITS OPEN—Kiva Ballroom
Teratology Society Posters: P19–P44 and LB1–LB10
OTIS Posters: 1–6

WEDNESDAY, JUNE 26, 2013

6:30 AM–8:00 AM  TERATOLOGY SOCIETY 32ND ANNUAL VOLLEYBALL GAME—Udall Park

7:00 AM–2:30 PM  REGISTRATION—Grand Ballroom Foyer

7:00 AM–2:30 PM  SPEAKER READY ROOM OPEN—Coronado Room

8:00 AM–8:45 AM  SPECIAL LECTURE—Salon B
New Experimental Approaches for Exploring the Genetic/Epigenetic Landscape of Environmental Exposures
Chairperson: Edward W. Carney, Teratology Society President
Lecturer: Rick Woychik, National Institute of Environmental Health Science

8:45 AM–12:00 Noon  MARCH OF DIMES SYMPOSIUM—Salon B
Advances in the Genomic Sciences towards Public Understanding and Predicting Developmental Defects
Chairpersons: Nicole C. Kleinstreuer, US Environmental Protection Agency and Peixin Yang, University of Maryland

8:45 AM–9:15 AM  S32  Genomic Analysis of Human Susceptibility to Neural Tube Defects
Richard H. Finnell, University of Texas, Austin

9:15 AM–9:45 AM  S33  Epigenomic Signatures of Craniofacial Development
M. Michele Pisano, University of Louisville Birth Defects Center

9:45 AM–10:30 AM  Warkany Tea

10:30 AM–11:00 AM  S34  Two Distinct Epigenetic Pathways: DNA Hypermethylation and Histone Acetylation in Maternal Diabetes-Induced Neural Tube Defects
Peixin Yang, University of Maryland

11:00 AM–11:30 AM  S35  A Transcriptomic Comparison between the Neural and Cardiac Embryonic Stem Cell Tests (ESTn and ESTc)
A.H. Piersma, National Institute for Public Health and the Environment (RIVM)
11:30 AM–12:00 Noon  S36  A Metabolomics Based Assay to Rapidly Predict Mammalian Developmental Toxicity Using Human Pluripotent Stem Cells (hPSCs)
Alan M. Smith, Stemina Biomarker Discovery

8:45 AM–12:00 Noon  PLATFORM SESSION 5—Catalina Ballroom
Clinical Teratology and Epidemiology
Chairpersons: Vincent T. Armenti, NTPR, Gift of Life Institute and Marilyn T. Miller, University of Illinois
Presenting author is underlined.

8:45 AM–9:00 AM  Introduction

9:00 AM–9:15 AM  33  Telemedicine for Genetic and Neurologic Subspecialty Evaluations in a Neonatal Intensive Care Unit
Wenger TL1,2, Abend N3, Deardorff MA3, Taub K4, Swarr DT5, Gerdes J6. 1Division of Genetics, Children's Hospital of Philadelphia, Philadelphia, PA, United States, 2Section of Clinical Informatics, Division of General Pediatrics, Children's Hospital of Philadelphia, Philadelphia, PA, United States, 3Division of Neurology, Children's Hospital of Philadelphia, Philadelphia, PA, United States, 4Division of Neonatology, Children's Hospital of Philadelphia, Philadelphia, PA, United States, 5Division of Neurology, Children's Hospital of Philadelphia, Philadelphia, PA, United States.

9:15 AM–9:30 AM  34  Hypospadias and Genes Related to Genital Tubercle and Early Urethral Development
Carmichael SL1, Ma C2, Choudhry S3, Lammer EJ4, Witte JS5, Shaw GM2. 1Stanford University, Stanford, CA, United States, 2University of California, San Francisco, San Francisco, CA, United States, 3Children's Hospital Oakland Research Institute, Oakland, CA, United States.

9:30 AM–9:45 AM  35  Late-Detected Critical Congenital Heart Disease among US Newborns: Estimating the Potential Impact of Universal Screening
Ailes E1,2, Peterson C1, Riehle-Colarusso T, Oster ME1, Olney RS1, Cassell CH1, Fixler DE1, Carmichael SL1, Shaw GM2, Gilboa SM1. 1National Center on Birth Defects and Developmental Disabilities, CDC, Atlanta, GA, United States, 2Epidemic Intelligence Service, CDC, Atlanta, GA, United States, 3Sibley Heart Center, Children's Healthcare of Atlanta, Emory University, Atlanta, GA, United States, 4University of Texas Southwestern Medical Center, Dallas, TX, United States, 5Department of Pediatrics, Division of Neonatal and Developmental Medicine, Stanford University Medical School, Palo Alto, CA, United States.

9:45 AM–10:30 AM  Warkany Tea

10:30 AM–10:45 AM  36  Vascular Disruption Limb Defects: Correlation with Advanced Maternal Age?
Nasri HN1, Macklin EM2, Holmes LH2. 1Simmons College, Boston, MA, United States, 2Department of Biostatistics, Massachusetts General Hospital for Children, Boston, MA, United States.

10:45 AM–11:00 AM  37  Association of Maternal Stressors and Social Support with Risks of Birth Defects
Carmichael SL1, Ma C2, Tinker S3, Rasmussen S4, Shaw GM2. 1Stanford University, Stanford, CA, United States, 2Centers for Disease Control and Prevention, Atlanta, GA, United States.

11:00 AM–11:15 AM  38  Risk Factors for Preterm Birth during Heat Waves: Trends in Urban and Rural Settings in the Deep South
Gohlke JM1, Kent ST2, McClure LA3, Smith TT4, Zaitchik BF5. 1University of Alabama at Birmingham, Birmingham, AL, United States, 2Johns Hopkins University, Baltimore, MD, United States.

39  Withdrawn
11:15 AM–11:30 AM  40  Validity of Maternal Alcohol Screening Questionnaires vs. Ethanol Biomarker  
Bakhireva LN, Gutierrez H, Stephens E, Goff C, Savich DD, Leeman L, Rayburn WF. University of New Mexico Health Sciences Center, Albuquerque, NM, United States.

11:45 AM–12:00 Noon  41  An Ongoing Register Study on Socioeconomic Variables in Adults with Fetal Alcohol Syndrome  
Stromland K1, Rangmar J, Dahlgren Sandberg A2, Aronson M2, Fahlke C2. 1Department of Ophthalmology, Institute of Neuroscience and Physiology, Gothenburg University, Gothenburg, Sweden, 2Department of Psychology, Institute of Neuroscience and Physiology, Gothenburg University, Gothenburg, Sweden.

9:45 AM–10:30 AM  WARKANY TEA—Grand Ballroom Foyer

12:00 Noon–1:00 PM  LUNCH ON YOUR OWN

12:00 Noon–1:00 PM  EDUCATION COMMITTEE MEETING—Santa Rita

1:00 PM–4:00 PM  PUBLIC AFFAIRS COMMITTEE SYMPOSIUM—Salon B

Diabetes and Pregnancy  
Chairpersons: Gloria D. Jahnke, National Institute of Environmental Health Sciences and Asher Ornoy, Israeli Teratology Information Service, Israel Ministry of Health and Hebrew University  
Endorsed by the Society for Maternal-Fetal Medicine

1:00 PM–1:15 PM  S37  Obesity and Diet As Emerging Causes for Diabetes Mellitus in Pregnancy  
Richard K. Miller, University of Rochester

1:15 PM–1:45 PM  S38  Outcomes for Complications of Pregestational Diabetes  
E. Albert Reece, University of Maryland Medical School

1:45 PM–2:15 PM  S39  Neurodevelopmental Outcome of Children Born to Women with Pregestational and Gestational Diabetes  
Asher Ornoy, Israeli Teratology Information Service, Israel Ministry of Health and Hebrew University

2:15 PM–2:30 PM  Break

2:30 PM–3:00 PM  S40  Genetic and Epigenetic Effects of Diabetes in Pregnancy  
Gabriela Pavlinkova, Institute of Biotechnology, Czech Republic

3:00 PM–3:30 PM  S41  Molecular Basis of Birth Defects in Diabetic Pregnancies: Implications for Developmental Programming of Metabolic Syndrome  
Claudia Kappen, Louisiana State University

3:30 PM–3:45 PM  S42  How Far Are We from Prevention of Diabetes and Its Complications?  
E. Albert Reece, University of Maryland Medical School

3:45 PM–4:00 PM  Discussion

4:15 PM–5:45 PM  BUSINESS MEETING—Salon B
6:30 PM–7:30 PM  BANQUET RECEPTION—Kiva Patio

7:30 PM–11:00 PM  BANQUET—Kiva Ballroom
   Travel Awards
   James C. Bradford Memorial Student Poster Awards
   Wilson Presentation Awards
   Marie Taubeneck Award
   Distinguished Service Award

THURSDAY, JUNE 27, 2013

7:00 AM–10:00 AM  COUNCIL 2 MEETING—Executive Boardroom