



# Teratology Society

## 50<sup>th</sup> Annual Meeting

June 26–30, 2010

This event has been accredited by  
the McGill Center for Continuing Health  
Professional Education.

*Louisville*  
KENTUCKY  
Marriott Louisville Downtown

**23<sup>rd</sup> International Conference of the Organization  
of Teratology Information Specialists (OTIS)**  
*June 26–29, 2010*

*and the*

**34<sup>th</sup> Annual Meeting of the Neurobehavioral  
Teratology Society (NBTS)**  
*June 26–30, 2010*

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**Teratology Society**  
*50<sup>th</sup>*  
**Annual Meeting**  
June 26–30, 2010

*Louisville*  
**KENTUCKY**  
**Marriott Louisville Downtown**

**Program**  
*and*  
**Abstracts**

## Program Overview

### FRIDAY, JUNE 25, 2010

**3:00 PM–6:00 PM**  
Council IA Meeting

**4:00 PM–6:00 PM**  
Registration

### SATURDAY, JUNE 26, 2010

**7:00 AM–6:00 PM**  
Registration

**7:30 AM–8:00 AM**  
Education Course: Coffee and Continental Breakfast

**8:00 AM–11:30 AM**  
Education Course  
Session I: Prenatal Drug Disposition and Teratogenesis

**12:00 NOON–1:00 PM**  
F. Clarke Fraser and Distinguished Service Awards Committee Meeting

**12:30 PM–5:30 PM**  
TS/OTIS Joint Pregnancy Registry Workshop

**1:30 PM–4:45 PM**  
Education Course  
Session II: Postnatal Drug Disposition and Teratogenesis

**6:00 PM–8:00 PM**  
Student/Postdoctoral Fellow Mixer

**6:30 PM–9:30 PM**  
Council IB Meeting and Committee Reports

### SUNDAY, JUNE 27, 2010

**8:00 AM–7:00 PM**  
Registration

**8:00 AM–8:15 AM**  
President's Welcome

**8:15 AM–9:15 AM**  
Josef Warkany Lecture  
50 Years of Progress in Understanding the Causes of Three Common Birth Defects

**9:15 AM–11:45 AM**  
Student/Postdoctoral Fellow Platform Session I  
Wilson Presentation Award Competition

**11:45 AM–12:00 NOON**  
Box Lunch Pick-Up

**12:00 NOON–1:00 PM**  
TS/OTIS Joint Robert L. Brent Lecture  
Ionizing Radiation Exposure to the Fetus and Infant from Medical Imaging: A Radiologist's Perspective

**1:00 PM–1:30 PM**  
F. Clarke Fraser Award  
Gastroschisis: A Journey to Discover the Pieces of the Puzzle

**1:30 PM–2:00 PM**  
James G. Wilson Publication Award  
Regulations of Folate Receptor 1 Gene Expression in the Visceral Endoderm

**2:00 PM–3:00 PM**  
TS/ETS Joint Exchange Lecture  
Pros and Cons of the Extended One-Generation Study Protocol

**3:15 PM–5:45 PM**  
Vitamin B<sub>12</sub> and Neural Tube Defects: Is It Time to Fortify Food with B<sub>12</sub> Symposium

**6:00 PM–8:00 PM**  
TS/NBTS Joint Welcome Reception and Exhibits Open

### MONDAY, JUNE 28, 2010

**7:00 AM–8:00 AM**  
BDRB Editorial Board Meeting

**7:30 AM–6:00 PM**  
Registration

**8:00 AM–7:00 PM**  
Exhibit Hall Open

**8:00 AM–9:00 AM**  
TS/OTIS Joint State of the Art Lecture  
Palate Development: Molecular Perspectives and Current Understanding

**9:15 AM–11:45 AM**  
TS/NBTS/OTIS Joint Symposium  
Reproductive Psychiatry

**9:15 AM–11:45 AM**  
Platform Session II  
Mechanisms and Models

**11:45 AM–1:15 PM**  
Past Presidents' Luncheon

**11:45 AM–12:45 PM**  
Web Site Committee Meeting

**1:15 PM–2:15 PM**  
TS/OTIS Joint Special Lecture  
Human Teratogens: Update 2010

**2:15 PM–5:00 PM**  
Update on Thalidomide Symposium

**5:00 PM–7:00 PM**  
TS/NBTS/OTIS Joint Poster Session and Exhibits Open

**7:30 PM–9:30 PM**  
MARTA Student and Postdoctoral Fellow Career Event

### TUESDAY, JUNE 29, 2010

**7:00 AM–5:00 PM**  
Registration

**7:00 AM–8:20 AM**  
Sunrise Mini Course  
Imaging Tools for Structural and Functional Teratogenesis Analyses

**8:00 AM–2:00 PM**  
Exhibit Hall Open

**8:30 AM–9:15 AM**  
TS/NBTS/OTIS Joint Special Lecture  
Children's Environmental Health:  
A Good Start Lasts a Lifetime

**9:30 AM–12:00 NOON**  
March of Dimes/Public Affairs Committee Symposium  
Herbal Supplement Usage during Pregnancy

**9:30 AM–12:00 NOON**  
TS/NBTS Joint Symposium  
Advancing Neurodevelopmental Evaluation in Children: An Interdisciplinary Approach

**12:00 NOON–2:00 PM**  
TS/NBTS Joint Poster Session and Exhibits Open

**2:00 PM–4:30 PM**  
Platform Session III  
Hazard Assessment and Screening

**2:00 PM–4:15 PM**  
TS/OTIS Joint Platform Session IV  
Common Conditions in Pregnancy: Treatment of Mental Health and Asthma

**4:45 PM–6:30 PM**  
50<sup>th</sup> Anniversary Meeting Celebration

### WEDNESDAY, JUNE 30, 2010

**6:30 AM–7:30 AM**  
Teratology Society XXIX Annual Volleyball Game

**7:00 AM–8:00 AM**  
Public Affairs Committee Meeting

**7:00 AM–8:00 AM**  
Student Affairs Committee Meeting

**8:00 AM–2:00 PM**  
Registration

**8:00 AM–10:30 AM**  
Platform Session V  
Epidemiology and Clinical Studies

**8:00 AM–10:30 AM**  
Wiley-Blackwell Symposium  
Teratology Society: 50 Years Then to Now

**10:30 AM–11:00 AM**  
Warkany Tea

**11:00 AM–12:00 NOON**  
TS/NBTS Joint Update on the National Children's Study/Panel

**12:30 PM–1:30 PM**  
Education Committee Meeting

**12:30 PM–1:30 PM**  
Membership Committee

**1:30 PM–4:30 PM**  
ILSI HESI Symposium  
21<sup>st</sup> Century Developmental Toxicology

**4:30 PM–6:00 PM**  
Business Meeting and Reports from BDR Editors

**6:30 PM–7:30 PM**  
Banquet Reception

**7:30 PM–10:00 PM**  
Banquet

### THURSDAY, JULY 1, 2010

**7:00 AM–10:00 AM**  
Council II Meeting

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## General Information

### Registration

The Teratology Society Annual Meeting registration is located in the Marriott Ballroom Foyer.

Hours: Friday, 4:00 PM–6:00 PM  
 Saturday, 7:00 AM–6:00 PM  
 Sunday, 8:00 AM–7:00 PM  
 Monday, 7:30 AM–6:00 PM  
 Tuesday, 7:00 AM–5:00 PM  
 Wednesday, 8:00 AM–2:00 PM

### Hotel Map

To assist you in locating the hotel registration desk, meeting rooms, and Exhibit Hall there is a map of the Ballroom Level located on page 304.

### Photography and Recording Policy

Photography, video, and/or audio recording of scientific presentations is prohibited without advance specific consent of the presenter(s)/author(s). Session Chairs are asked to strictly enforce this policy and individuals who do not comply will be asked to leave the session. In addition, cameras and recording devices are prohibited in the Exhibit Hall.

Teratology Society Annual Meeting registrants grant the Teratology Society permission to reproduce, copy, and publish photographs taken at the Annual Meeting unless written notification by the registrant, stating otherwise, is submitted to the Teratology Society headquarters office prior to the Annual Meeting or while registering on-site.

### First Aid and Security

The Marriott Louisville Downtown has equipped each meeting room with a house phone for use in case of an emergency. If you need medical or security assistance pick up the house phone and dial 0, the hotel operator will connect you to the correct department.

### Award/Lectures

#### Narsingh Agnish Fellowship

This award recognizes Narsingh Agnish's contributions to the Teratology Society, and particularly the implementation of the Education Course. The Narsingh Agnish Fellowship facilitates the continuing participation of senior Teratology Society members at the Annual Meeting. The 2010 recipient of this award is Thomas H. Shepard, who will present on Saturday, June 26 at 1:30 PM.

#### Robert L. Brent Lecture

This award recognizes Robert L. Brent's contributions to the Teratology Society, and particularly to the implementation of the "Teratogen Update." The purpose of the Robert L. Brent Lecture is to facilitate the discussion of new and old teratogens during the Annual Meeting. The 2010 recipient of this award is Donald P. Frush, who will present on Sunday, June 27 at 12:00 NOON.

#### F. Clarke Fraser Award

This award honors F. Clarke Fraser, one of the founding members of the Teratology Society, for his many contributions to the field of developmental toxicology. This year's award recipient is Marcia L. Feldkamp, who will present on Sunday, June 27 at 1:00 PM.

#### Distinguished Service Award

To coincide with our 50<sup>th</sup> Anniversary celebrations, the Teratology Society has established the Distinguished Service Award. This award honors an individual who has provided distinguished service to the Teratology Society. The first recipient of this award is F. Clarke Fraser. The award will be presented during the 50<sup>th</sup> Anniversary Meeting Celebration session on Tuesday, June 29 at 4:45 PM.

#### Josef Warkany Lecturer

This award recognizes Josef Warkany's contributions to the Teratology Society. Dr. Warkany was the first person to demonstrate that exposures to environmental chemicals are responsible for production of congenital malformation. His early studies culminated in the formulation of the scientific principles of teratology. This award recognizes a scientist who has significantly contributed to the field of teratology over his/her career. This year's lecture will be presented by Diana M. Juriloff, on Sunday, June 27 at 8:15 AM.

### James G. Wilson Publication Award


This annual award is presented in recognition of the best paper accepted or published in the journal *Birth Defects Research*. The dual purpose of the award is to provide recognition to the authors of the best paper and to encourage authors trained in various disciplines to submit high quality papers to *Birth Defects Research*. The paper selected for this year's award is *Regulations of Folate Receptor 1 Gene Expression in the Visceral Endoderm*. J. Michael Salbaum will present the data on Sunday, June 27 at 1:30 PM.

### James C. Bradford Memorial Student Poster Award

This is an award for the best poster presentation by a student at the annual meetings of the Teratology Society and Neurobehavioral Teratology Society (NBTS). It is jointly sponsored by the Middle Atlantic Reproduction and Teratology Association (MARTA) and sanofi-aventis. These awards are presented to awardees during the Banquet on Wednesday, June 30 at 7:30 PM.

### Continuing Medical Education (CME)

The Teratology Society is offering a CME Program to clinicians and trainees for many of the scientific sessions held during the 50<sup>th</sup> Annual Meeting. The CME Program is available on the Teratology Society Web site at [www.teratology.org](http://www.teratology.org).

This is the Society's third year offering CME credits in an effort to broaden the audience at our scientific sessions, while enhancing the professional development of clinicians who integrate the outcome of the research into everyday practice. Talks designated as part of the CME Program are identified by the CME icon  in the agenda.

### Teratology Society CME Program

This event is approved for up to 26 credits by the Center for Continuing Health Professional Education (CCHPE). The Center for CCHPE, Faculty of Medicine, McGill University is fully accredited by the Committee on Accreditation of Canadian Medical Schools and through the (CACMS) is accredited to award AMA PRA category 1 credits.

This event is an Accredited Group Learning Activity as defined by the Maintenance of Certification program of the Royal College of Physicians and Surgeons of Canada.

Through a reciprocal agreement between the American Medical Association and the Royal College of Physicians and Surgeons of Canada, the Center for CCHPE, Faculty of Medicine, McGill University designates this activity for AMA PRA Category 1 credit(s) up to the maximum number of credit hours noted above.

Each physician should claim only those hours of credit that he/she actually spent at the educational activity.

### Daily Breakdown on CME Credits

The following is the daily breakdown of credits available. Each attendee is responsible for claiming credit commensurate with the extent of your participation in the scientific activities.

Saturday, June 26: 4 credits  
 Sunday, June 27: 5.5 credits  
 Monday, June 28: 7 credits  
 Tuesday, June 29: 4.5 credits  
 Wednesday, June 30: 5 credits

### Required CME Program—Intent to Participate

Teratology Society Annual Meeting attendees who wish to receive CME credits must complete the CME participation form, which is available on-line on the Society's Web site and at the registration desk for on-site participants.

### Required Daily Sign-In Sheets

Teratology Society Annual Meeting attendees who wish to receive CME credits are responsible for signing the attendance sheet each day of participation. The sign-in sheets will be located at the registration desk during registration hours. Only the current day's sign-in sheet will be available at the registration desk.

### CME Certificates of Participation

Certificates of CME participation, based on the daily sign-in sheets, will be available at the registration desk. Attendees are required to state the number of CME credits they are claiming and sign the certificate prior to departure. Certificates will be issued until 2:00 PM on Wednesday, June 30. Certification of Continuing Medical Education credits is the responsibility of the attendee.

### ACCME Accreditation

#### Disclosure of Faculty and Industry Relationships

In accordance with ACCME policy, all faculty members have signed a conflict of interest statement in which they have disclosed any significant financial interests or other relationships with industry relative to topics they will discuss at this program. At the beginning of the program, faculty members are expected to disclose any such information to participants. Such disclosure allows you to evaluate better the objectivity of the information presented in lectures. Please report on your evaluation form any undisclosed conflict of interest you perceive.

## Highlights

### Welcoming Reception

The Welcoming Reception will be held in the Marriott Ballroom I on Sunday, June 27 at 6:00 PM. The reception is open to registered attendees of the Teratology Society and NBTS Annual Meetings. Please wear your badge to gain entrance to the reception. This year the reception will feature a Silent Auction with certificates for local dining and attractions and much more! Come prepared to support the Teratology Society.

### Exhibits

Exhibits will be open in Marriott Ballroom I to attendees Sunday evening through Tuesday afternoon featuring companies offering products and services relating to teratology. Scientific posters will be displayed in the Exhibit Hall and complimentary coffee breaks will take place in the hall Monday through Tuesday morning.

#### Exhibit Hall Hours:

Sunday, 6:00 PM–8:00 PM

Monday, 8:00 AM–7:00 PM

Tuesday, 8:00 AM–2:00 PM

### Poster Sessions

The Poster Sessions will be held in the Marriott Ballroom I on Monday, June 28 and Tuesday, June 29. The TS/NBTS/OTIS Joint Poster Session will take place on Monday. The posters for this session will be on display starting at 12:30 PM. The authors will be present for discussion from 5:00 PM–7:00 PM. The TS/NBTS Joint Poster Session will take place on Tuesday. The posters for this session will be on display starting at 8:00 AM. The authors will be present for discussion from 12:00 NOON–2:00 PM.

### Celebrating 50 Years and More...

To celebrate 50 years of success, we offer a session on Tuesday afternoon full of history and honors, a look forward and a bit of levity as well. The session will begin with a tribute to Dr. Josef Warkany, a founder and first President of the Teratology Society, by the pediatrician, geneticist and Warkany historian, Dr. Wladimir Wertelecki. A second founder, Dr. James Wilson, will be celebrated in a talk by Dr. Robert Brent, a charter member of the Society, Past President and Dr. Wilson's first graduate student. Then, Dr. F. Clarke Fraser, the third founder of the Society, will receive the first Teratology Society Distinguished Service Award. Having honored our history and all three of our founding fathers, we will then get a forward-looking perspective from our students and postdoctoral fellows—where they see the field and the Society heading in the coming decades. We will finish the session with a rousing game of Teratology Society jeopardy. Students will be recruited to play this Q&A game based on the History of the Teratology Society. Answers to most questions will be found on displays and in events throughout the meeting—prizes will be offered. Rumor has it that a few door prizes will be given to attendees as well! You won't want to miss this special session!

### Banquet and Award Presentations

Plan to stay for the grand finale of the 50<sup>th</sup> Annual Meeting celebration on Wednesday, June 30—the Banquet. A reception (no host bar) will be held in the Marriott Ballroom Foyer beginning at 6:30 PM. Seating for dinner will begin at 7:30 PM in the Marriott Ballroom I. Join your colleagues in a celebratory champagne toast and dancing as this memorable year draws to a close.

The Banquet is included with your Teratology Society meeting registration. Tickets, which are distributed with your registration materials, are required for this event and are not transferable. Guest tickets can be purchased at the registration desk. Teratology Society Awards presented during the banquet are as follows:

#### Travel Awards

James C. Bradford Memorial Student Poster Award

Wilson Presentation Awards

Marie Taubeneck Award

### XXIX Annual Volleyball Game

Come one, come all and join in the fun! The 29<sup>th</sup> Annual Volleyball Game is scheduled for Wednesday, June 30, from 6:30 AM–7:30 AM at the Baxter Jack's Volleyball Club. This is an event that you will not want to miss. Stop by the registration desk for more information on how to participate in this match—it is free and open to all attendees. If you don't play, come out and cheer!

## Student/Postdoctoral Fellow Activities

Special events for student and postdoctoral attendees will occur throughout the Teratology Society meeting. These events were planned with you in mind and allow you to meet other students, postdoctoral fellows, and scientists in our field. The following special events are scheduled.

**Saturday Mixer**—Come get acquainted or reacquainted with your fellow student and postdoctoral attendees before the start of the meeting. Students and postdoctoral attendees are encouraged to meet at the Champions Sports Bar at 6:00 PM on Saturday, June 26.

Student and Postdoctoral attendees should plan to gather in groups of at least 6 to redeem coupons for a free drink and appetizer for the group to share. Your coupon will be in your registration materials. The coupons are only good for Saturday evening.

**Annual Volleyball Game**—Come out and show the “seasoned players” how it is done! The 29<sup>th</sup> Annual Volleyball Game is scheduled for Wednesday, June 30, from 6:30 AM–7:30 AM. If you don't play, come out and cheer!

## Student/Postdoctoral Fellow Platform Session— Wilson Presentation Award Competition

This year's Student/Postdoctoral Platform Session showcases the work of eight students and postdoctoral fellows. The participants in this session were selected by the Student Affairs Committee from submitted abstracts. The presenters in this session will compete for the Wilson Presentation Award. This award was established in honor of James G. Wilson, one of the founding members of the Teratology Society and recognizes the work of students and postdoctoral fellows in the field of teratology. It is awarded based on the content and quality of the oral presentations. The two award winners will be announced during the Society Banquet on Wednesday, June 30. Make plans to support the Society's student and postdoctoral members by attending this session on Sunday, June 27 at 9:15 AM.

## MARTA Student and Postdoctoral Fellow Career Event

Please be our guest for dinner, conversation, and networking at the Student/Postdoctoral Career Event on Monday, June 28, from 7:30 PM–9:30 PM. This popular event, hosted by the Middle Atlantic Reproduction and Teratology Association (MARTA), is for students and postdoctoral fellows attending the joint annual meetings of the Teratology Society, Neurobehavioral Teratology Society, and the Organization of Teratology Information Specialists. As you prepare for the next phase in your professional career, we offer you this opportunity to meet your fellow students and postdoctoral fellows and to interact with scientists from academia, government, and industry. This is also an opportunity for you to discuss your future and the various career paths available to you. This event has been overwhelmingly well received in the past and we hope to see you there.

## While in Louisville

### Conference Site

The Marriott Louisville Downtown is a smoke-free hotel featuring plush accommodations, Blu Italian Grille, Champions Sports Bar, and Starbucks Café. Located in the heart of downtown, the Louisville Marriott is adjacent to the 4<sup>th</sup> Street Live dining and entertainment district and within blocks of many of Louisville's museums and attractions like the Muhammad Ali Center, Louisville Slugger Museum, Louisville Glassworks, and a short drive to Churchill Downs.

The hotel has a full service business center open 24 hours to hotel guests, full service concierge, 24-hour guest room dining, local restaurant delivery, laundry/dry cleaning services, coin operated laundry, newsstand and gift shop, indoor pool, and has a 24-hour complimentary fitness center, featuring cardiovascular equipment and free weights.

### Stay Connected While You Travel

The Teratology Society appreciates how important it is for attendees to stay connected to daily responsibilities while attending the meeting. The Teratology Society will provide Internet Café which will be open during the posted registration hours. The hotel will provide complimentary wireless Internet access in the meeting registration area for attendees who bring their own computers. Stop by the Teratology Society registration desk to obtain the access information.

If you would like to access the Internet in your guest room, the Marriott Louisville Downtown offers high-speed wireless Internet access for a daily rate of \$12.95.

### Ground Transportation

The estimated one way taxi fare from the Louisville International Airport to the hotel is \$20. Bus service is available for approximately \$2.50 each way. If you will be arriving by train or bus, the Greyhound bus terminal is located .8 miles from the hotel while Louisville Union Station is .4 miles southwest.

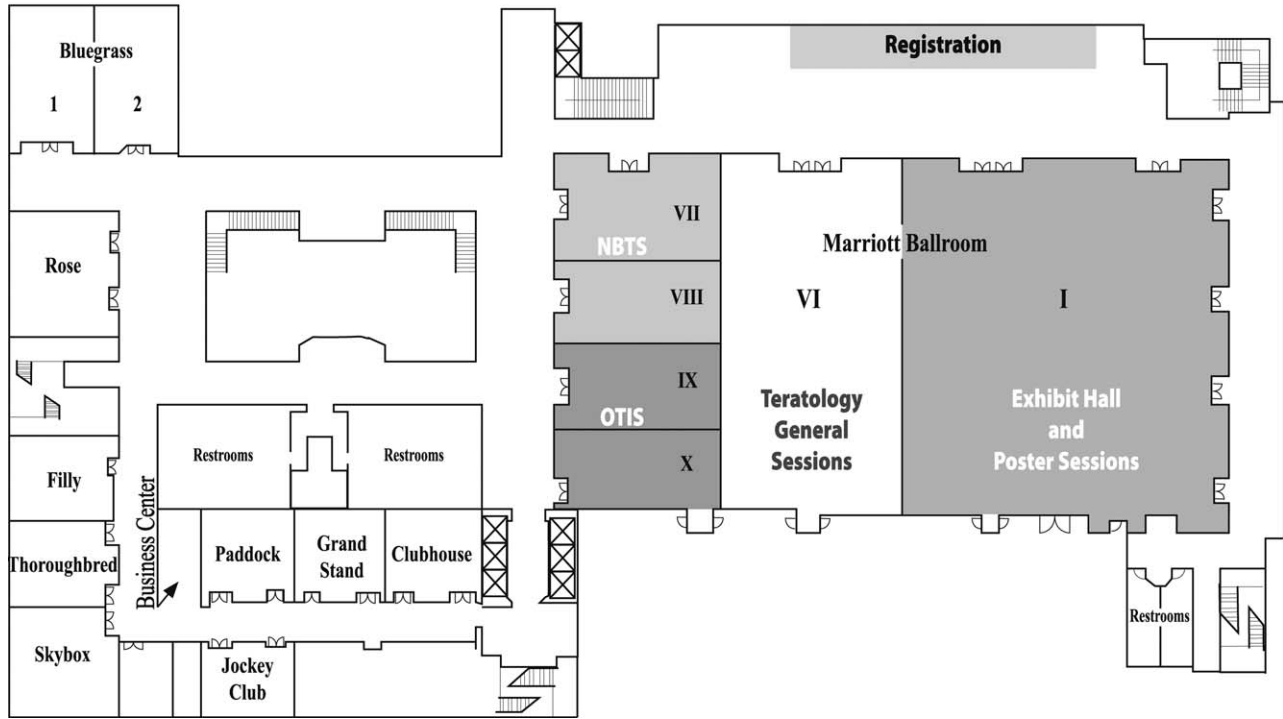
### Hotel Parking

The Marriott Louisville Downtown offers both self parking and valet parking. Self parking is offered at \$21 per day and valet parking is \$25 per day. Off-site parking is also available for \$8 per day. All prices are subject to change.



# Marriott Louisville Downtown Map

## Second Floor





## Program Agenda

### FRIDAY, JUNE 25, 2010

- 3:00 PM–6:00 PM COUNCIL IA MEETING—Skybox Meeting Room
- 4:00 PM–6:00 PM REGISTRATION—Marriott Ballroom VI Foyer

### SATURDAY, JUNE 26, 2010

- 7:00 AM–6:00 PM REGISTRATION—Marriott Ballroom VI Foyer
- 7:30 AM–8:00 AM EDUCATION COURSE: COFFEE AND CONTINENTAL BREAKFAST—Marriott Ballroom VI
- 8:00 AM–11:30 AM EDUCATION COURSE (*Separate Registration Required*)—Marriott Ballroom VI
  - Session I: Prenatal Drug Disposition and Teratogenesis**  
*Organized by the Education Committee, Chairperson, Louise M. Winn, Queen's University*
  - 8:00 AM–8:10 AM **Welcome** CME  
*Barbara F. Hales, Teratology Society President*
  - 8:10 AM–8:15 AM **Course Overview** CME  
*Education Committee Chairperson, Louise M. Winn, Queen's University*
  - 8:15 AM–9:00 AM **The Role of Biotransformation in Developmental Toxicology** CME  
*Craig Harris, University of Michigan*
  - 9:00 AM–9:45 AM **Stage- and Species-Specific Disposition of Toxicants during Pregnancy**  
*Edward W. Carney, The Dow Chemical Company*
  - 9:45 AM–10:00 AM **Break**
  - 10:00 AM–10:45 AM **Prenatal Ontogeny and Capabilities of Phase I and Phase II Enzymes** CME  
*J. Steven Leeder, Children's Mercy Hospitals and Clinics*
  - 10:45 AM–11:30 AM **Repair Capabilities in the Embryo** CME  
*Peter G. Wells, University of Toronto*
- 11:30 AM–1:30 PM LUNCH ON YOUR OWN
- 12:00 NOON–1:00 PM F. CLARKE FRASER AND DISTINGUISHED SERVICE AWARDS COMMITTEE MEETING—Skybox Meeting Room

**12:30 PM–5:30 PM TS/OTIS JOINT PREGNANCY REGISTRY WORKSHOP—Marriott Ballroom IX**

*Moderators: Christina D. Chambers, University of California, San Diego and  
Lewis B. Holmes, MassGeneral Hospital For Children*

- 12:30 PM–12:40 PM Introduction**
- 12:40 PM–1:10 PM W1 Classifying Birth Defects in Reproductive Research**  
*Lewis B. Holmes, MassGeneral Hospital for Children*
- Point/Counterpoint**
- 1:10 PM–1:30 PM W2 Methodological Challenges in Surveillance of Spontaneous Abortion As a Reproductive Health Endpoint**  
*David A. Savitz, Mt. Sinai School of Medicine*
- 1:30 PM–1:50 PM W3 Studying Miscarriage Using Pregnancy Registries**  
*De-Kun Li, Kaiser Permanente Medical Group*
- 1:50 PM–2:10 PM W4 Organizing Pregnancy Registries during an Emergency Response**  
*Ava Marie S. Conlin, Naval Health Research Center*
- 2:10 PM–2:30 PM W5 The Vaccines and Medications in Pregnancy Surveillance System (VAMPSS): Launch of a New System for Post-Marketing Surveillance**  
*Christina Chambers, University of California, San Diego*
- 2:30 PM–3:15 PM Panel Discussion: FDA Pregnancy Registry Guidance Document Revisions**  
*Moderator: Melissa S. Tassinari, U.S. Food and Drug Administration*
- 3:15 PM–3:30 PM W6 Universal Call Center for Medicine Use in Pregnancy**  
*Michael McDonagh, CKR Consulting*
- 3:30 PM–3:45 PM Break**
- 3:45 PM–4:00 PM W7 Birth Defect Categorization Systems Employed by Pregnancy Registries**  
*Covington DL, McKain LR, Hurst N. Pharmaceutical Product Development Inc., Wilmington, NC, United States.*
- 4:00 PM–4:15 PM W8 Pregnancy Drug Safety Labeling and Surveillance at the Time of Product Approval**  
*McKain LF, Covington DL. Pharmaceutical Product Development, Inc., Wilmington, NC, United States.*
- 4:15 PM–4:30 PM W9 Comparative Safety of Topiramate during Pregnancy**  
*Hernandez-Diaz S<sup>1</sup>, Mittendorf R<sup>2</sup>, Holmes LB<sup>3</sup>. <sup>1</sup>Harvard School of Public Health, Boston, MA, United States, <sup>2</sup>Loyola University Chicago, Chicago, IL, United States, <sup>3</sup>MassGeneral Hospital for Children, Boston, MA, United States.*
- 4:30 PM–4:45 PM W10 UCB Antiepileptic Drug Pregnancy Registry**  
*Scheuerle A<sup>1</sup>, Harden C<sup>2</sup>, Alekar S<sup>3</sup>, Leppik I<sup>4</sup>, Montouris G<sup>5</sup>. <sup>1</sup>Tesserae Genetics, Dallas, TX, United States, <sup>2</sup>University of Miami School of Medicine, Miami, FL, United States, <sup>3</sup>UCB, Inc., Raleigh, NC, United States, <sup>4</sup>University of Minnesota, Minneapolis, MN, United States, <sup>5</sup>Boston University School of Medicine and Boston Medical Center, Boston, MA, United States.*

**4:45 PM–5:00 PM W11 Medication Exposure in Pregnancy Risk Evaluation Program**  
*Li DK<sup>1</sup>, Andrade S<sup>2</sup>, Scott P<sup>3</sup>, Cheetham C<sup>4</sup>, Cooper W<sup>5</sup>, Davis R<sup>6</sup>,  
 Dublin S<sup>7</sup>, Pawloski P<sup>8</sup>, Raebel M<sup>9</sup>, Smith D<sup>10</sup>, Toh D<sup>11</sup>. <sup>1</sup>Kaiser Permanente  
 Northern California, Oakland, CA, United States, <sup>2</sup>Meyers Primary  
 Care Institute, Worcester, MA, United States, <sup>3</sup>U.S. Food and Drug  
 Administration, Silver Spring, MD, United States, <sup>4</sup>Kaiser Permanente  
 Southern California, Los Angeles, CA, United States, <sup>5</sup>Vanderbilt  
 University School of Medicine, Vanderbilt University School of Medicine,  
 United States, <sup>6</sup>Kaiser Permanente Georgia, Atlanta, GA, United States,  
<sup>7</sup>Group Health Center for Health Studies, Seattle, WA, United States,  
<sup>8</sup>HealthPartners Research Foundation, Bloomington, MN, United States,  
<sup>9</sup>Kaiser Permanente Colorado, Denver, CO, United States, <sup>10</sup>Kaiser  
 Permanente Northwest, Portland, OR, United States, <sup>11</sup>Harvard Medical  
 School and Harvard Pilgrim Health Care, Boston, MA, United States.*

**5:00 PM–5:30 PM Poster Session**  
 Posters WP1–WP4

**1:30 PM–4:45 PM EDUCATION COURSE (Separate Registration Required)—Marriott Ballroom VI**

**Session II: Postnatal Drug Disposition and Teratogenesis**

*Organized by the Education Committee, Chairperson, Louise M. Winn, Queen's University*

**1:30 PM–1:45 PM Narsingh Agnish Fellowship**  
*Thomas H. Shepard, University of Washington*

**1:45 PM–2:15 PM Lactational Transfer of Drugs**  
*Sue Marty, The Dow Chemical Company*

**2:15 PM–3:00 PM Postnatal Metabolic Systems** **CME**  
*Ronald N. Hines, Medical College of Wisconsin*

**3:00 PM–3:15 PM Break**

**3:15 PM–4:00 PM Toxicity Profile Differences between Adults and Juveniles** **CME**  
*Melissa J. Beck, WIL Research Laboratories, LLC*

**4:00 PM–4:45 PM Environmental Influences** **CME**  
*Carl L. Keen, University of California, Davis*

**6:00 PM–8:00 PM STUDENT/POSTDOCTORAL FELLOW MIXER—Champions Sport Bar**

**6:30 PM–9:30 PM COUNCIL IB MEETING AND COMMITTEE REPORTS—Skybox Meeting Room**

**SUNDAY, JUNE 27, 2010**

**8:00 AM–7:00 PM REGISTRATION—Marriott Ballroom VI Foyer**

**8:00 AM–8:15 AM PRESIDENT'S WELCOME—Marriott Ballroom VI**

**8:15 AM–9:15 AM JOSEF WARKANY LECTURE—Marriott Ballroom VI**

**50 Years of Progress in Understanding the Causes of Three Common Birth Defects** **CME**  
*Diana M. Juriloff, University of British Columbia*

**9:15 AM–11:45 AM STUDENT/POSTDOCTORAL FELLOW PLATFORM SESSION I—Marriott Ballroom VI**

**Wilson Presentation Award Competition**

*Chairpersons: Meredith S. Rocca, Elan Pharmaceuticals, Jeffrey H. Charlap, Charles River and  
 Jane F. Rasco, University of Alabama*

*Organized by the Student Affairs Committee*

**9:15 AM–9:30 AM Introduction**

**9:30 AM–9:45 AM 1 Exposure of Organogenesis Stage Mouse Embryos to Hydroxyurea  
 Induces Nuclear 4-hydroxy-2-nonenal Protein Adducts**  
*Schlusser AE, Hales BF. McGill University, Montreal, QC, Canada.*

- 9:45 AM–10:00 AM 2 **Maternal DNA Hypomethylation, Methionine Pathway Metabolites, Lifestyle Factors and Congenital Heart Defects**  
*Chowdhury S, Cleves MA, MacLeod SL, Zhao W, Hobbs CA. University of Arkansas for Medical Sciences, Arkansas Children's Hospital Research Institute, Little Rock, AR, United States.*
- 10:00 AM–10:15 AM 3 **A Toxicity Signature for Species-Specific Disruption of Embryonic Vasculogenesis Derived from ToxCast™ *In Vitro* Profiling Data**  
*Kleinstreuer N<sup>1</sup>, Dix D<sup>1</sup>, Judson R<sup>1</sup>, Kavlock R<sup>1</sup>, Sipes N<sup>1</sup>, Reif D<sup>1</sup>, Chandler K<sup>1,3</sup>, Rountree M<sup>1</sup>, DeWoskin R<sup>2</sup>, Singh A<sup>4</sup>, Spencer R<sup>4</sup>, Knudsen T<sup>1</sup>. <sup>1</sup>NCCT, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>2</sup>NCEA, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>3</sup>NHEERL, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>4</sup>Lockheed Martin, Research Triangle Park, NC, United States.*
- 10:15 AM–10:30 AM 4 **Exposure to 2-methoxyacetic Acid Induces Limb Malformations and Histone 4 Hyperacetylation *In Vitro***  
*Dayan C, Hales BF. McGill University, Montreal, QC, Canada.*
- 10:30 AM–10:45 AM **Break**
- 10:45 AM–11:00 AM 5 **High-Throughput Screening of ToxCast™ Phase I Chemicals in an Embryonic Stem Cell Assay Reveals Potential Disruption of a Critical Developmental Signaling Pathway**  
*Chandler K<sup>1,2</sup>, Hunter S<sup>1</sup>, Jeffay S<sup>1</sup>, Nichols H<sup>1</sup>, Hoopes M<sup>1</sup>, Barrier M<sup>1</sup>, Habig J<sup>3</sup>, Knudsen T<sup>2</sup>. <sup>1</sup>Integrated Systems Toxicology Division, U.S. EPA, Research Triangle Park, NC, United States, <sup>2</sup>National Center for Computational Toxicology, U.S. EPA, Research Triangle Park, NC, United States, <sup>3</sup>Endogenics, Eagle, ID, United States.*
- 11:00 AM–11:15 AM 6 **Valproic Acid Disrupts Chondrocyte Differentiation and Increases Apoptosis *In Vitro* in Murine Limb Buds**  
*Paradis FH, Hales BF. McGill University, Montreal, QC, Canada.*
- 11:15 AM–11:30 AM 7 **Dissecting the Action of Bisphenol-A on Germline Maintenance Using *C. elegans***  
*Allard P, Colaiacovo M. Harvard Medical School, Genetics, Boston, MA, United States.*
- 11:30 AM–11:45 AM 8 **Transfer of Dendrimers in the Perfused Human Placental Lobule *In Vitro*: Prospects for Use As Drug Carriers during Pregnancy**  
*Rinderknecht AL<sup>1</sup>, Menjoge AR<sup>2,3</sup>, Kannan RM<sup>2,3</sup>, Kim CJ<sup>3</sup>, Romero R<sup>3</sup>, Faridnia M<sup>1</sup>, Miller RK<sup>1</sup>. <sup>1</sup>University of Rochester, Rochester, NY, United States, <sup>2</sup>Wayne State University, Detroit, MI, United States, <sup>3</sup>National Institute of Child Health and Human Development, Detroit, MI, United States.*
- 11:45 AM–12:00 NOON **BOX LUNCH PICK-UP**
- 12:00 NOON–1:00 PM **TS/OTIS JOINT ROBERT L. BRENT LECTURE (A Box Lunch Session)—Marriott Ballroom VI**  
**Ionizing Radiation Exposure to the Fetus and Infant from Medical Imaging: A Radiologist's Perspective (L1)**  
*Donald P. Frush, Duke University Medical Center*
- 1:00 PM–1:30 PM **F. CLARKE FRASER AWARD—Marriott Ballroom VI**  
**Gastroschisis: A Journey to Discover the Pieces of the Puzzle (L2)**  
*Marcia L. Feldkamp, University of Utah*
- 1:30 PM–2:00 PM **JAMES G. WILSON PUBLICATION AWARD—Marriott Ballroom VI**  
**Regulations of Folate Receptor 1 Gene Expression in the Visceral Endoderm**  
*J. Michael Salbaum, Pennington Biomedical Research Center*

- 2:00 PM–3:00 PM** TS/ETS JOINT EXCHANGE LECTURE—Marriott Ballroom VI  
**Pros and Cons of the Extended One-Generation Study Protocol**  
*Teratology Society*  
**The Cons of the Extended One-Generation Study Protocol (L3)** **CME**  
*Paul M.D. Foster, National Institute of Environmental Health Sciences*  
*European Teratology Society*  
**The Extended One-Generation Reproduction Toxicity Study: Improving Hazard Assessment and Saving Animals? (L4)** **CME**  
*Aldert H. Piersma, National Institute for Public Health and the Environment (RIVM), Bilthoven*
- 3:00 PM–3:15 PM** BREAK
- 3:15 PM–5:45 PM** VITAMIN B<sub>12</sub> AND NEURAL TUBE DEFECTS: IS IT TIME TO FORTIFY FOOD WITH B<sub>12</sub> SYMPOSIUM—Marriott Ballroom VI  
*Chairperson: James L. Mills, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH*
- 3:15 PM–3:40 PM** S1 **Vitamin B<sub>12</sub> Deficiency and NTDs: Is There a Causal Relationship?** **CME**  
*James L. Mills, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH*
- 3:40 PM–4:05 PM** S2 **Normal Vitamin B<sub>12</sub> Physiology, the Pathophysiology of B<sub>12</sub> Deficiency, and Their Relevance to Treatment and Fortification** **CME**  
*Ralph Carmel, New York Methodist Hospital and Weill Medical College of Cornell University*
- 4:05 PM–4:30 PM** S3 **Should FDA Require Vitamin B<sub>12</sub> Fortification of Enriched Flour? Yes** **CME**  
*Godfrey P. Oakley, Emory University*
- 4:30 PM–4:55 PM** S4 **Should We Fortify Food with B<sub>12</sub> Now? No** **CME**  
*Ralph Green, University of California Davis Medical Center*
- 4:55 PM–5:45 PM** **Panel Discussion and Response to Questions from the Audience** **CME**
- 6:00 PM–8:00 PM** TS/NBTS JOINT WELCOME RECEPTION AND EXHIBITS OPEN—Marriott Ballroom I  
 Silent Auction

**MONDAY, JUNE 28, 2010**

- 7:00 AM–8:00 AM** BDRB EDITORIAL BOARD MEETING—Filly Meeting Room
- 7:30 AM–6:00 PM** REGISTRATION—Marriott Ballroom VI Foyer
- 8:00 AM–7:00 PM** EXHIBIT HALL OPEN—Marriott Ballroom I
- 8:00 AM–9:00 AM** TS/OTIS JOINT STATE OF THE ART LECTURE—Marriott Ballroom VI  
**Palate Development: Molecular Perspectives and Current Understanding (L5)** **CME**  
*Robert M. Greene, Director, Birth Defects Center, University of Louisville*
- 9:00 AM–9:15 AM** BREAK

## 9:15 AM–11:45 AM TS/NBTS/OTIS JOINT SYMPOSIUM—Marriott Ballroom VI

**Reproductive Psychiatry**

Chairpersons: Katherine L. Wisner, University of Pittsburgh Medical Center and Adrienne Einarson, The Motherisk Program

- |                   |    |  |
|-------------------|----|--|
| 9:15 AM–9:20 AM   |    | <b>Introduction</b> <b>CME</b>   |
| 9:20 AM–9:50 AM   | S5 | <b>Prenatal SRI Exposure: Where Does Neonatal Behavioral Syndrome End and Neurobehavioral Teratogenicity Begin?</b> <b>CME</b><br><i>Tim F. Oberlander, University of British Columbia</i>                       |
| 9:50 AM–10:20 AM  | S6 | <b>Messages from the Womb: Maternal Antidepressant Use and Fetal Neurobehavior</b> <b>CME</b><br><i>Amy L. Salisbury, Alpert Medical School of Brown University</i>  |
| 10:20 AM–10:50 AM | S7 | <b>An Update on Lithium Treatment during Pregnancy and Lactation</b> <b>CME</b><br><i>Adele C. Viguera, Neurological Institute, Cleveland Clinic</i>   |
| 10:50 AM–11:20 AM | S8 | <b>Effects of Developmental Exposure to Methylphenidate on Brain Areas Involved in Cognition, Motivated Behaviors, Appetite and Stress</b> <b>CME</b><br><i>Teresa Ann Milner, Weill Cornell Medical College</i> |
| 11:20 AM–11:45 AM |    | <b>Discussion: How Do We Incorporate These Data into Human Risk Assessment?</b> <b>CME</b><br><i>Katherine L. Wisner, University of Pittsburgh Medical Center</i>  |

## 9:15 AM–11:45 AM PLATFORM SESSION II—Marriott Ballroom VII

**Mechanisms and Models**

Chairpersons: Barbara D. Abbott, U.S. Environmental Protection Agency and Peter G. Wells, University of Toronto

- |                   |    |   |
|-------------------|----|---|
| 9:15 AM–9:30 AM   | 9  | <b>Peroxisome Proliferator-Activated Receptor Alpha (PPAR<math>\alpha</math>), Beta (PPAR<math>\beta</math>), and Gamma (PPAR<math>\gamma</math>) Expression in Human Fetal Tissues</b><br><i>Abbott BD, Wood CR, Watkins AM, Das KP, Lau CS. Developmental Biology Branch, Toxicity Assessment Div., NHEERL, U.S. EPA, Research Triangle Park, NC, United States.</i>  |
| 9:30 AM–9:45 AM   | 10 | <b>Modulation of Adenosine Receptor A<sub>1</sub> Signaling Results in Inhibition of Calvarial Ossification in Mice</b><br><i>Bushdid PB, Gibbard A, Pagana JM, White TE. GlaxoSmithKline, King of Prussia, PA, United States.</i>  |
| 9:45 AM–10:00 AM  | 11 | <b>Akt1 Mediates Mammary Gland Growth and Development <i>In Vivo</i></b><br><i>LaRocca J, Hixon M. Brown University, Providence, RI, United States.</i>   |
| 10:00 AM–10:15 AM | 12 | <b>Role of Mitogen-Activating Protein Kinase Signaling in the Developmental Toxicity of Hydroxyurea</b><br><i>Banh S, Hales BF. McGill University, Montreal, QC, Canada.</i>  |
| 10:15 AM–10:30 AM | 13 | <b>Ethanol Teratogenesis, Oxidative Stress and Protection by a Free Radical Spin Trapping Agent</b><br><i>Miller L<sup>1</sup>, Wells PG<sup>1</sup>. <sup>1</sup>Department of Pharmacology and Toxicology, University of Toronto, Toronto, ON, Canada, <sup>2</sup>Faculty of Pharmacy, University of Toronto, Toronto, ON, Canada.</i>   |
| 10:30 AM–10:45 AM | 14 | <b>Advantages and Challenges of Dietary Developmental Toxicity Studies in the Rabbit</b><br><i>Rasoulpour RJ, Brooks KJ, Saghri SA, Billington R, Carney EW. The Dow Chemical Company, Midland, MI, United States.</i>  |
| 10:45 AM–11:00 AM | 15 | <b>Cigarette Smoke Exposure: Alterations in the Metabolome of the Gravid and Non-Gravid Mouse Uterus</b><br><i>Neal RE<sup>1,2</sup>, Chen J<sup>1</sup>, Birtles T<sup>2</sup>, Greene RM<sup>2</sup>, Pisano MM<sup>2</sup>. <sup>1</sup>EOHS, SPHIS, University of Louisville, Louisville, KY, United States, <sup>2</sup>Birth Defects Center, University of Louisville, Louisville, KY, United States.</i> |

- 11:00 AM–11:15 AM 16 **Altered Liver Proteome Profiles in a Mouse Model of “Developmental” Cigarette Smoke Exposure**  
*Canales L<sup>1</sup>, Chen J<sup>1</sup>, Birtles T<sup>2</sup>, Greene RM<sup>2</sup>, Pisano MM<sup>2</sup>, Neal R<sup>1,2</sup>.  
<sup>1</sup>University of Louisville, Louisville, KY, United States, <sup>2</sup>Birth Defects Research Center, University of Louisville, Louisville, KY, United States.*
- 11:15 AM–11:30 AM 17 **Proteome Profiling of Mouse Embryonic Stem Cells to Define Markers for Cell Differentiation and Embryotoxicity**  
*Osman A<sup>1,2</sup>, van Dartel DAM<sup>1,2</sup>, Zwart E<sup>1</sup>, Blokland M<sup>1</sup>, Pennings J<sup>1</sup>, Piersma AH<sup>1,3</sup>. <sup>1</sup>RIVM Lab for Health Protection Research, Bilthoven, Netherlands, <sup>2</sup>GRAT-NUTRIM-Maastricht University, Maastricht, Netherlands, <sup>3</sup>IRAS-Utrecht University, Utrecht, Netherlands.*
- 11:30 AM–11:45 AM 18 **Development of a Computational (*In Silico*) Model of Ocular Teratogenesis**  
*Sipes NS<sup>1</sup>, Rountree MR<sup>1</sup>, Kleinstreuer NC<sup>1</sup>, Dix DJ<sup>1</sup>, Judson RS<sup>1</sup>, Kavlock RJ<sup>1</sup>, Swat M<sup>4</sup>, Glazier JA<sup>4</sup>, DeWoskin RS<sup>2</sup>, Singh AV<sup>3</sup>, Spencer RM<sup>3</sup>, Knudsen<sup>1</sup>. <sup>1</sup>NCCT, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>2</sup>NCEA, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>3</sup>Lockheed Martin, Research Triangle Park, NC, United States, <sup>4</sup>The Biocomplexity Institute, Dept. of Physics, Indiana University, Bloomington, IN, United States.*
- 11:45 AM–1:15 PM LUNCH ON YOUR OWN
- 11:45 AM–1:15 PM PAST PRESIDENTS’ LUNCHEON (*By Invitation Only*)—Bluegrass 1 Meeting Room
- 11:45 AM–12:45 PM WEB SITE COMMITTEE MEETING—Filly Meeting Room
- 1:15 PM–2:15 PM TS/OTIS JOINT SPECIAL LECTURE—Marriott Ballroom VI  
**Human Teratogens: Update 2010** CME  
*Lewis B. Holmes, MassGeneral Hospital for Children*
- 2:15 PM–5:00 PM UPDATE ON THALIDOMIDE SYMPOSIUM—Marriott Ballroom VI  
*Chairperson: Lewis B. Holmes, MassGeneral Hospital for Children*
- 2:15 PM–2:20 PM **Introduction** CME  
*Lewis B. Holmes, MassGeneral Hospital for Children*
- 2:20 PM–2:30 PM **Thalidomide Epidemic and the Founding of the Teratology Society** CME  
*F. Clarke Fraser, McGill University*
- 2:30 PM–3:15 PM S9 **Thalidomide Embryopathy: Ophthalmologic Findings and a Few Surprises** CME  
*Marilyn Miller, University of Illinois College of Medicine*
- 3:15 PM–3:30 PM **Break**
- 3:30 PM–4:15 PM S10 **Recent Advances in Understanding the Developmental Basis of Phocomelia** CME  
*Patrick Allard, Harvard Medical School*
- 4:15 PM–5:00 PM S11 **Lessons Learned from the Thalidomide Epidemic and the Current Hypotheses of the Possible Mechanisms of Action** CME  
*Trent Stephens, Idaho State University*
- 5:00 PM–7:00 PM TS/NBTS/OTIS JOINT POSTER SESSION AND EXHIBITS OPEN—Marriott Ballroom I  
Teratology Society Posters: P1–P28A  
NBTS Posters: 1–6  
OTIS Posters: 1–11
- 7:30 PM–9:30 PM MARTA STUDENT AND POSTDOCTORAL FELLOW CAREER EVENT—Bluegrass 1 Meeting Room  
Open to TS/NBTS/OTIS Students and Postdoctoral Fellows



**TUESDAY, JUNE 29, 2010**

- 7:00 AM–5:00 PM**    **REGISTRATION—Marriott Ballroom VI Foyer**
- 7:00 AM–8:20 AM**    **SUNRISE MINI COURSE** (*Separate Registration Required*)—**Marriott Ballroom VI**  
**Imaging Tools for Structural and Functional Teratogenesis Analyses**  
*Organized by the Education Committee, Chairperson, Louise M. Winn, Queen's University*
- 7:00 AM–7:40 AM**    **Imaging Tools for Structural Analysis** **CME**  
*William Slikker, Jr., National Center for Toxicological Research, U.S. FDA*
- 7:40 AM–8:20 AM**    **Imaging Tools for Functional Analysis** **CME**  
*Julia M. Stephen, University of New Mexico*
- 8:00 AM–2:00 PM**    **EXHIBIT HALL OPEN—Marriott Ballroom I**
- 8:30 AM–9:15 AM**    **TS/NBTS/OTIS JOINT SPECIAL LECTURE—Marriott Ballroom VI**  
**Children's Environmental Health: A Good Start Lasts a Lifetime** **CME**  
*Linda S. Birnbaum, Director, National Institute of Environmental Health Sciences, NIH*
- 9:15 AM–9:30 AM**    **BREAK**
- 9:30 AM–12:00 NOON**    **MARCH OF DIMES/PUBLIC AFFAIRS COMMITTEE SYMPOSIUM—Marriott Ballroom VI**  
**Herbal Supplement Usage during Pregnancy**  
*Chairpersons: Patricia M. Bittner, U.S. Consumer Product Safety Commission, Chair, Public Affairs Committee and Richard K. Miller, University of Rochester Medical Center*  
*Organized by the Public Affairs Committee*
- 9:30 AM–10:00 AM**    **S12**    **Herbal Usage during Pregnancy: Teratology Society White Paper** **CME**  
*Richard K. Miller, University of Rochester Medical Center*
- 10:00 AM–10:30 AM**    **S13**    **Herbal Preparations Usage and Pregnancy** **CME**  
*Henry M. Hess, University of Rochester Medical Center*
- 10:30 AM–11:00 AM**    **S14**    **Herbal Products: Are They What They Claim to Be?** **CME**  
*William R. Obermeyer, ConsumerLab.com*
- 11:00 AM–11:10 AM**    **S15**    **Herbal Drugs in Pregnancy: A Canadian Perspective** **CME**  
*Gideon Koren, The Hospital for Sick Children*
- 11:10 AM–11:20 AM**    **S16**    **Traditional Chinese Medicine: Herbal Medicine Origins and Utilization in China** **CME**  
*Robert L. Brent, Alfred I. duPont Hospital for Children*
- 11:20 AM–11:30 AM**    **S17**    **Herbal Preparations: Are We at the Beginning of Regulations? The Situation in Europe and the Eastern Mediterranean Region** **CME**  
*Asher Ornoy, Hebrew University Hadassah Medical School and Israeli Ministry of Health*
- 11:30 AM–12:00 NOON**    **Panel Discussion of Position Paper and Topic** **CME**  
*Patricia M. Bittner, U.S. Consumer Product Safety Commission, Chair, Public Affairs Committee*

9:30 AM–12:00 NOON

TS/NBTS JOINT SYMPOSIUM—Marriott Ballroom VII

**Advancing Neurodevelopmental Evaluation in Children: An Interdisciplinary Approach**

Chairperson: Susan Makris, U.S. Environmental Protection Agency and William Slikker, Jr., National Center for Toxicological Research, U.S. FDA

- 9:30 AM–9:55 AM S18 **The Use of Neurodevelopmental Data in Children for Risk Assessment of Environmental Chemicals** **CME**  
*Susan Makris, U.S. Environmental Protection Agency*
- 9:55 AM–10:20 AM S19 **A Multidisciplinary Approach to Advancing the Science of Neurodevelopmental Testing in Cohorts of Infants and Young Children** **CME**  
*Judy S. LaKind, LaKind Associates, LLC*
- 10:20 AM–10:45 AM S20 **Getting the Biggest Bang for Your Buck: Choosing Neurodevelopmental Tests That Maximize Power** **CME**  
*Lauren Kenworthy, George Washington University School of Medicine*
- 10:45 AM–11:10 AM S21 **Threats to Study Validity: The Flynn Effect, Examiner Drift, Confounders, Lost in Translation, and Other Important Considerations** **CME**  
*Laura Gutermuth Anthony, George Washington University School of Medicine*
- 11:10 AM–11:35 AM S22 **Weight-of-the-Evidence Assessment in Neurodevelopmental Epidemiology: A Plea for Consistency** **CME**  
*Michael Goodman, Emory University*
- 11:35 AM–12:00 NOON **Panel Discussion** **CME**

12:00 NOON–2:00 PM

TS/NBTS JOINT POSTER SESSION AND EXHIBITS OPEN—Marriott Ballroom I

Teratology Society Posters: P29–P58

NBTS Posters: 7–11

2:00 PM–4:30 PM

PLATFORM SESSION III—Marriott Ballroom VI

**Hazard Assessment and Screening**

Chairpersons: Michael G. Narotsky, U.S. Environmental Protection Agency and Rochelle W. Tyl, RTI International

- 2:00 PM–2:15 PM 19 **Effects of *In Utero* Exposure to Mono-2-ethylhexylphthalate (MEHP) on the Adult Female Mouse**  
*Moyer BJ, Hixon ML. Brown University, Providence, RI, United States.*
- 2:15 PM–2:30 PM 20 **Micro-CT and Alizarin Red Evaluations of Fetal Rat and Rabbit Skeletal Abnormalities Induced by All-Trans-Retinoic Acid**  
*Wise LD<sup>1</sup>, Xue D<sup>2</sup>, Winkelmann CT<sup>2</sup>. <sup>1</sup>Toxicological Sciences, Merck Research Laboratories, West Point, PA, United States, <sup>2</sup>Imaging Department, Merck Research Laboratories, West Point, PA, United States.*
- 2:30 PM–2:45 PM 21 **Effects of Bisphenol A and Diethylstilbestrol on the Adult Male Reproductive System Following Oral Administration to Pregnant C57BL6 Mice on Gestational Days 10 through 16**  
*Hixon ML, LaRocca J, Boyajian A, Brown C, Duncan Smith S. Brown University, Providence, RI, United States.*
- 2:45 PM–3:00 PM 22 **Gonadal Responses to Vinclozolin Administered Orally to Han Wistar Rats**  
*Tyl RW<sup>1</sup>, Seely JC<sup>2</sup>, Marr MC<sup>1</sup>, Myers CB<sup>1</sup>, Youn VY<sup>1</sup>, Browning DB<sup>1</sup>, Bishop JB<sup>3</sup>. <sup>1</sup>RTI International, Research Triangle Park, NC, United States, <sup>2</sup>Experimental Pathology Laboratories, Inc., Research Triangle Park, NC, United States, <sup>3</sup>National Toxicology Program/NIEHS/NIH, Research Triangle Park, NC, United States.*
- 3:00 PM–3:15 PM **Break**

- 3:15 PM–3:30 PM 23 **Maternal Diet Modulates the Rate of Neural Tube Defects in Diabetic Pregnancies**  
*Kappen C, Kruger C, MacGowan J, Salbaum JM. Pennington Biomedical Research Center, Baton Rouge, LA, United States.*
- 3:30 PM–3:45 PM 24 **Mammary Gland Development As a Sensitive Indicator of Early Life Exposures: Recommendations from an Interdisciplinary Workshop**  
*Fenton SE<sup>1</sup>, Rudel RA<sup>2</sup>, Euling SY<sup>3</sup>, Makris SL<sup>3</sup>. <sup>1</sup>National Institute of Environmental Health Sciences, National Toxicology Program, Research Triangle Park, NC, United States, <sup>2</sup>Silent Spring Institute, Newton, MA, United States, <sup>3</sup>NCEA, U.S. EPA, Washington, DC, United States.*
- 3:45 PM–4:00 PM 25 **Assessment of Reproductive and Developmental Toxicity of Mixtures of Regulated Drinking Water Chlorination By-Products in a Multigenerational Rat Bioassay**  
*Narotsky MG<sup>1</sup>, Klinefelter GR<sup>1</sup>, Goldman JM<sup>1</sup>, Strader LF<sup>1</sup>, Suarez JD<sup>1</sup>, Pressman JG<sup>2</sup>, Miltner RJ<sup>2</sup>, Speth T<sup>2</sup>, Teuschler LK<sup>3</sup>, Rice GE<sup>3</sup>, Richardson SD<sup>4</sup>, Best DS<sup>1</sup>, McDonald A<sup>1</sup>, Murr AS<sup>1</sup>, Hunter ES<sup>1</sup>, Simmons JE<sup>1</sup>. <sup>1</sup>National Health and Environmental Effects Research Laboratory, ORD, U.S. EPA, Research Triangle Park, NC, United States, <sup>2</sup>National Risk Management Research Laboratory, ORD, U.S. EPA, Cincinnati, OH, United States, <sup>3</sup>National Center for Environmental Assessment, ORD, U.S. EPA, Cincinnati, OH, United States, <sup>4</sup>National Exposure Research Laboratory, ORD, U.S. EPA, Athens, GA, United States.*
- 4:00 PM–4:15 PM 26 **A Fishy Solution to Reproductive Toxicity Screening or Just a Red Herring? Zebrafish in Developmental Toxicity: Value within Pharmaceutical Development**  
*Van den Bulck K<sup>1</sup>, Hill A<sup>2</sup>, Jones M<sup>2</sup>, Dodd A<sup>2</sup>, Mesens N<sup>1</sup>, Bailey GP<sup>1</sup>, De Schaepdrijver L<sup>1</sup>, Lammens L<sup>1</sup>. <sup>1</sup>Johnson & Johnson Pharmaceutical Research & Development, Beerse, Belgium, <sup>2</sup>Evotec AG, Hamburg, Germany.*
- 4:15 PM–4:30 PM 27 **Establishment of a Statistical Prediction Model and Abbreviated Assay Design for Teratogenicity Screening of Compounds Using Rat Whole Embryo Culture**  
*Zhang CXZ, Cao JC, Panzica-Kelly JPK, Stock DS, Augustine-Rauch KAA. Bristol Myers Squibb, Pennington, NJ, United States.*
- 2:00 PM–4:15 PM **TS/OTIS JOINT PLATFORM SESSION IV—Marriott Ballroom IX**  
**Common Conditions in Pregnancy: Treatment of Mental Health and Asthma**  
*Chairpersons: Ludmila Bakhireva, University of New Mexico and Myla Moretti, The Hospital For Sick Children*
- 2:00 PM–2:15 PM 28 **Patterns of Psychotropic Drug Use in Pregnancy and Lactation: The MotherSafe Experience 2000–2007**  
*Eamus M<sup>1</sup>, Oei J<sup>1,2</sup>, Hill M<sup>3</sup>, Taylor T<sup>3</sup>, Kennedy D<sup>1,3</sup>. <sup>1</sup>School of Women's and Children's Health, University of NSW, Kensington, NSW, Australia, <sup>2</sup>Dept. of Neonatology, Royal Hospital for Women, Randwick, NSW, Australia, <sup>3</sup>MotherSafe, Royal Hospital for Women, Randwick, NSW, Australia.*
- 2:15 PM–2:30 PM 29 **Birth Defects, Preterm Birth and Intrauterine Growth in the Offspring of Women Prescribed Citalopram during Pregnancy**  
*Colvin L<sup>1,2</sup>, Slack-Smith L<sup>2</sup>, Stanley FJ<sup>1</sup>, Bower C<sup>1</sup>. <sup>1</sup>Centre for Child Health Research, Telethon Institute for Child Health Research, The University of Western Australia, West Perth, Australia, <sup>2</sup>School of Dentistry, The University of Western Australia, West Perth, Austria.*
- 2:30 PM–2:45 PM 30 **The Safety of Escitalopram in Pregnancy: A Prospective Cohort Study**  
*Klieger-Grossmann C<sup>1</sup>, Weitzner B<sup>1</sup>, Einarson T<sup>2</sup>, Koren G<sup>1</sup>, Einarson A<sup>1</sup>. <sup>1</sup>The Motherisk Program, Division of Clinical Pharmacology and Toxicology, Department of Pediatrics, The Hospital for Sick Children, University of Toronto, Toronto, ON, Canada, <sup>2</sup>Faculty of Pharmacy, University of Toronto, Toronto, ON, Canada.*

- 2:45 PM–3:00 PM 31 **Neurodevelopment of Children Exposed *In Utero* to Venlafaxine: Preliminary Results**  
*Nulman I*<sup>1,2</sup>, *Barrera M*<sup>1,2</sup>, *Pulver A*<sup>1</sup>, *Streiner D*<sup>2,3</sup>, *Feldman B*<sup>1,2</sup>, *Koren G*<sup>1,2</sup>. <sup>1</sup>The Hospital for Sick Children, Toronto, ON, Canada, <sup>2</sup>The University of Toronto, Toronto, ON, Canada, <sup>3</sup>Baycrest Centre, Toronto, ON, Canada.
- 3:00 PM–3:15 PM **Break**
- 3:15 PM–3:30 PM 32 **Impact of Changing the Dose of Inhaled Corticosteroids during Pregnancy on the Risk of Maternal Asthma Exacerbations**  
*Blais L*<sup>1,2</sup>, *Kettani F*<sup>2</sup>, *Ducharme FM*<sup>3</sup>, *Lemière C*<sup>1,2</sup>, *Beauchesne M-F*<sup>1</sup>, *Bérard A*<sup>1</sup>. <sup>1</sup>Université de Montréal, Montréal, QC, Canada, <sup>2</sup>Hôpital du Sacré-Coeur de Montréal, Montréal, QC, Canada, <sup>3</sup>CHU Ste-Justine, Montréal, QC, Canada.
- 3:30 PM–3:45 PM 33 **Congenital Anomalies in Asthmatic Women Using Corticosteroids during Pregnancy: A Meta Analysis from Published Data**  
*Namazy IA*<sup>1</sup>, *Murphy VE*<sup>2,3</sup>, *Powell H*<sup>2,4</sup>, *Gibson PG*<sup>2,4</sup>, *Chambers CD*<sup>5</sup>, *Schatz M*<sup>6</sup>. <sup>1</sup>Scripps Clinic, San Diego, CA, United States, <sup>2</sup>University of Newcastle, Newcastle, NSW, Australia, <sup>3</sup>Hunter Medical Research Institute, Newcastle, NSW, Australia, <sup>4</sup>John Hunter Hospital, Newcastle, NSW, Australia, <sup>5</sup>University of California San Diego, La Jolla, CA, United States, <sup>6</sup>Kaiser Permanente Medical Center, San Diego, CA, United States.
- 3:45 PM–4:00 PM 34 **Risk of Perinatal Mortality Associated with the Use of Inhaled Corticosteroids for the Treatment of Asthma during Pregnancy**  
*Breton MCB*<sup>1</sup>, *Beauchesne MFB*<sup>1,2</sup>, *Lemière CL*<sup>2</sup>, *Rey ER*<sup>3</sup>, *Amélie AF*<sup>2</sup>, *Blais LB*<sup>1,2</sup>. <sup>1</sup>Université de Montréal, Montréal, QC, Canada, <sup>2</sup>Research Center, Hôpital du Sacré-Cœur de Montréal, Montréal, QC, Canada, <sup>3</sup>Obstetric and Gynecology Department, CHU Ste-Justine, Montréal, QC, Canada.
- 4:00 PM–4:15 PM 35 **Perception of Teratogenicity among Pregnant Women with Asthma or Diabetes Mellitus**  
*Sarangarm P*<sup>1</sup>, *Liu S*<sup>1</sup>, *Young BN*<sup>1</sup>, *Phelan ST*<sup>2</sup>, *Nawarskas J*<sup>1</sup>, *Rayburn WF*<sup>2</sup>, *Bakhireva LN*<sup>1</sup>. <sup>1</sup>University of New Mexico, College of Pharmacy, Albuquerque, NM, United States, <sup>2</sup>University of New Mexico, Department of Obstetrics and Gynecology, Albuquerque, NM, United States.
- 4:45 PM–6:30 PM **50<sup>TH</sup> ANNIVERSARY MEETING CELEBRATION—Marriott Ballroom VI**  
*Chairpersons: Barbara F. Hales, McGill University and John M. Rogers, U.S. Environmental Protection Agency*  
*Organized by the 50<sup>th</sup> Anniversary Planning Committee*
- 4:45 PM–4:50 PM **Introduction**  
*John M. Rogers, U.S. Environmental Protection Agency*
- 4:50 PM–5:10 PM S23 **Josef Warkany: Then and Now**  
*Wladimir Wertelecki, University of South Alabama*
- 5:10 PM–5:30 PM S24 **James G. Wilson, Embryologist, Teratologist, Founding Member of the Teratology Society, Superb Researcher, Teacher and Human Being**  
*Robert L. Brent, Alfred I. duPont Hospital for Children*
- 5:30 PM–5:45 PM **Distinguished Service Award**  
*Presented by Barbara F. Hales, McGill University and Terence R.S. Ozolins, Queen's University*
- 5:45 PM–6:00 PM **Students' Viewpoints on the Future of the Teratology Society**
- 6:00 PM–6:30 PM **Let's Play Jeopardy! History of the Teratology Society**

**WEDNESDAY, JUNE 30, 2010**

- 6:30 AM–7:30 AM TERATOLOGY SOCIETY XXIX ANNUAL VOLLEYBALL GAME—Baxter Jack's Volleyball Club
- 7:00 AM–8:00 AM PUBLIC AFFAIRS COMMITTEE MEETING—Skybox Meeting Room
- 7:00 AM–8:00 AM STUDENT AFFAIRS COMMITTEE MEETING—Filly Meeting Room
- 8:00 AM–2:00 PM REGISTRATION—Marriott Ballroom VI Foyer
- 8:00 AM–10:30 AM PLATFORM SESSION V—Marriott Ballroom IX

**Epidemiology and Clinical Studies**

*Chairpersons: Sonja A. Rasmussen, Centers for Disease Control and Prevention and Robert Felix, University of California, San Diego*

- 8:00 AM–8:15 AM 36 **Maternal Exposure to Venlafaxine and Risk for Birth Defects**  
*Duwe K<sup>1</sup>, Rasmussen S<sup>1</sup>, Louik C<sup>2</sup>, Colarusso T<sup>1</sup>, Reefhuis J<sup>1</sup>. <sup>1</sup>NCBDDD, CDC, Atlanta, GA, United States, <sup>2</sup>Slone Epidemiology Center, BU, Boston, MA, United States.*
- 8:15 AM–8:30 AM 37 **Maternal Occupational Exposure to Organic Solvents and Congenital Heart Defects: Results from the National Birth Defects Prevention Study, 1997–2002**  
*Gilboa SM<sup>1</sup>, Correa A<sup>1</sup>, Desrosiers T<sup>2</sup>, Lupo P<sup>3</sup>, Lawson C<sup>4</sup>, Riehle-Colarusso T<sup>1</sup>, Stewart P<sup>5</sup>, van Winjgaarden E<sup>6</sup>. <sup>1</sup>National Center on Birth Defects and Developmental Disabilities, CDC, Atlanta, GA, United States, <sup>2</sup>North Carolina Birth Defects Monitoring Program, Raleigh, NC, United States, <sup>3</sup>University of Texas Health Sciences Center, Houston, TX, United States, <sup>4</sup>National Institute for Occupational Safety and Health, CDC, Cincinnati, OH, United States, <sup>5</sup>Stenzel Exposure Assessments, LLC, Arlington, VA, United States, <sup>6</sup>University of Rochester, Rochester, NY, United States.*
- 8:30 AM–8:45 AM 38 **No Effect of Perchlorate on Serum Thyroxine for Pregnant Women with Low Urine Iodine**  
*Lamm SH<sup>1,2</sup>, Robbins S<sup>1</sup>, Lu J<sup>4</sup>, Chen R<sup>3</sup>, Hollowell JG<sup>5</sup>. <sup>1</sup>CEOH, LLC, Washington, DC, United States, <sup>2</sup>Johns-Hopkins University Bloomberg School of Public Health, Baltimore, MD, United States, <sup>3</sup>Georgetown University, Washington, DC, United States, <sup>4</sup>American University, Washington, DC, United States, <sup>5</sup>University of Kansas, Kansas City, KS, United States.*
- 8:45 AM–9:00 AM 39 **Genital Tract Infections during Pregnancy and the Risk of Selected Birth Defects**  
*Carter TC<sup>1</sup>, Olney RS<sup>2</sup>, Mitchell AA<sup>3</sup>, Romitti PA<sup>4</sup>, Bell EM<sup>5</sup>, Druschel CM<sup>6</sup>. <sup>1</sup>National Institute of Child Health and Human Development, NIH, Bethesda, MD, United States, <sup>2</sup>Centers for Disease Control and Prevention, Atlanta, GA, United States, <sup>3</sup>Slone Epidemiology Unit, Boston University, Boston, MA, United States, <sup>4</sup>University of Iowa, Iowa City, IA, United States, <sup>5</sup>State University of New York at Albany, Albany, NY, United States, <sup>6</sup>New York State Department of Health, Albany, NY, United States.*
- 9:00 AM–9:15 AM 40 **Maternal Plasma Folate, Dihydrofolate Reductase Genotype and Risk of Isolated Cleft Lip with or without Cleft Palate: Findings from a Population-Based Study**  
*Munger RG<sup>1</sup>, Mansilla MA<sup>3</sup>, Tamura T<sup>4</sup>, Feldkamp M<sup>2</sup>, Johnson K<sup>4</sup>, Botto LD<sup>2</sup>, Murray JC<sup>3</sup>. <sup>1</sup>Utah State University, Logan, UT, United States, <sup>2</sup>University of Utah, Salt Lake City, UT, United States, <sup>3</sup>University of Iowa, Iowa City, IA, United States, <sup>4</sup>University of Alabama-Birmingham, Birmingham, AL, United States.*

- 9:15 AM–9:30 AM 41 **An Electronic Medical Record (EMR) System-Based Referral Facilitating Access to Teratogen Risk Counseling for Health Care Providers and Their Patients**  
*Felix R<sup>1</sup>, Chambers CD<sup>1,2</sup>, Cobian V<sup>1</sup>, Prince L<sup>1</sup>, Kao K<sup>1</sup>, Alvarado S<sup>1</sup>, Jones KL<sup>1</sup>. <sup>1</sup>University of California, San Diego, Department of Pediatrics, La Jolla, CA, United States, <sup>2</sup>University of California, San Diego, Department of Family and Preventative Medicine, La Jolla, CA, United States.*
- 9:30 AM–9:45 AM 42 **The Contribution of Chromosomal Abnormalities to Congenital Heart Defects: A Population-Based Study**  
*Hartman RJ<sup>1,2</sup>, Rasmussen SA<sup>1</sup>, Riehle-Colarusso T<sup>1</sup>, Botto L<sup>3</sup>, Correa A<sup>1</sup>. <sup>1</sup>National Center on Birth Defects and Developmental Disabilities, CDC, Atlanta, GA, United States, <sup>2</sup>Oak Ridge Institute for Science and Education, Oak Ridge, TN, United States, <sup>3</sup>Division of Medical Genetics, University of Utah, Salt Lake City, UT, United States.*
- 9:45 AM–10:00 AM 43 **Thalidomide Embryopathy Mimics Idiopathic Congenital Vascular and Skeletal Dysmorphologies**  
*Hootnick DR. Upstate Medical University, Syracuse, NY, United States.*
- 10:00 AM–10:15 AM 44 **Factors Associated with the Occurrence of Vascular Disruption Defects and Their Relationship with Heavy Metals: Case-Control Study in Cali, Colombia (South America) 2007–2009**  
*Pachajoa H, Ariza Y, Suarez M, Aguilar C, Isaza C, Méndez F. Universidad del Valle, Cali, Colombia.*
- 10:15 AM–10:30 AM 45 **Maternal Dietary Fat Intake As a Potentially Preventable Cause of Gastroschisis**  
*Jones KL<sup>1</sup>, Hagey LR<sup>2</sup>, Gonzalez V<sup>1</sup>, Benirschke K<sup>3</sup>, Chambers CD<sup>1,4</sup>. <sup>1</sup>University of California, San Diego, Department of Pediatrics, La Jolla, CA, United States, <sup>2</sup>University of California, San Diego, Department of Internal Medicine, La Jolla, CA, United States, <sup>3</sup>University of California, San Diego, Department of Pathology, La Jolla, CA, United States, <sup>4</sup>University of California, San Diego, Department of Family and Preventative Medicine, La Jolla, CA, United States.*
- 8:00 AM–10:30 AM **WILEY-BLACKWELL SYMPOSIUM—Marriott Ballroom VI**  
**Teratology Society: 50 Years Then to Now**  
*Organized by the Publications Committee*  
*Chairperson: Michael A. Schellpfeffer, Medical College of Wisconsin*
- 8:00 AM–8:30 AM S24 **A Personal Perspective of Historical Events That Affected the Development and Maturation of the Society in the Past 50 Years** **CME**  
*Robert L. Brent, Alfred I. duPont Hospital for Children*
- 8:30 AM–9:15 AM S25 **Clinical Teratology** **CME**  
*Kenneth Lyons Jones, CTIS*
- 9:15 AM–10:00 AM S26 **Experimental Teratology: Scenes from the Last Fifty Years** **CME**  
*William J. Scott, Jr., Cincinnati Children's Hospital Medical Center*
- 10:00 AM–10:30 AM S27 **Fast Forward to the Future: Where Will We Be?** **CME**  
*Barbara F. Hales, McGill University*
- 10:30 AM–11:00 AM **WARKANY TEA**
- 11:00 AM–12:00 NOON **TS/NBTS JOINT UPDATE ON THE NATIONAL CHILDREN'S STUDY/PANEL—Marriott Ballroom VI**  
*Chairperson: Elaine M. Faustman, University of Washington*

- 12:00 NOON–1:30 PM LUNCH ON YOUR OWN
- 12:30 PM–1:30 PM EDUCATION COMMITTEE MEETING—Filly Meeting Room
- 12:30 PM–1:30 PM MEMBERSHIP COMMITTEE—Thoroughbred Meeting Room
- 1:30 PM–4:30 PM ILSI HESI SYMPOSIUM—Marriott Ballroom VI  
**21<sup>st</sup> Century Developmental Toxicology**  
*Chairpersons: Edward W. Carney, The Dow Chemical Company and  
 George P. Daston, Procter & Gamble Company*
- 1:30 PM–1:35 PM Introduction  
*George P. Daston, Procter & Gamble Company*
- 1:35 PM–2:00 PM S28 **Of Babies and Their Bathwater: Strengths to Maintain and  
 Limitations to Overcome in Transitioning Developmental Toxicology  
 to Meet 21<sup>st</sup> Century Needs**  
*Edward W. Carney, The Dow Chemical Company*
- 2:00 PM–2:30 PM S29 **Exposure Assessment in the 21<sup>st</sup> Century: Increased Reliance  
 on Biomonitoring** CME  
*Sean Hays, Summit Toxicology*
- 2:30 PM–2:45 PM Break
- 2:45 PM–3:15 PM S30 **Pathway Profiling and Tissue Modeling Using ToxCast™ HTS  
 Data** CME  
*Thomas B. Knudsen, National Center for Computational Toxicology*
- 3:15 PM–3:45 PM S31 **Computational Toxicology: From Data to Analyses  
 to Applications** CME  
*Ivan Rusyn, University of North Carolina at Chapel Hill*
- 3:45 PM–4:30 PM S32 **Future Strategies for Developmental Toxicity  
 Safety Assessment** CME  
*Thomas Hartung, Johns Hopkins University Center for Alternatives to  
 Animal Testing*
- 4:30 PM–6:00 PM BUSINESS MEETING AND REPORTS FROM BDR EDITORS—Marriott Ballroom VI
- 6:30 PM–7:30 PM BANQUET RECEPTION—Marriott Ballroom Foyer
- 7:30 PM–10:00 PM BANQUET—Marriott Ballroom I  
 Travel Awards  
 James C. Bradford Memorial Student Poster Award  
 Wilson Presentation Awards  
 Marie Taubeneck Award

**THURSDAY, JULY 1, 2010**

- 7:00 AM–10:00 AM COUNCIL II MEETING—Skybox Meeting Room