

Society for Birth Defects Research and Prevention (BDRP)
67th Annual Meeting
Building a Better Tomorrow: Advances in the Fields of Pregnancy, Reproduction, and Development
Hilton Washington DC National Mall The Wharf, Washington, DC
June 14–17, 2026

Concurrent with the annual meeting of the Developmental Neurotoxicology Society (DNTS)

As of June 26, 2026

The times listed are in Eastern Daylight Time.

Sunday, June 14, 2026

12:00 PM–6:00 PM Registration Open

**2:00 PM–5:30 PM Placental Pathology and Associated Toxicological Models
Education Course**
(Separate Registration Required)

Organized by the BDRP Education Committee

*Chairpersons: Julia M. Gohlke, Virginia Polytechnic Institute and State University;
Philip J. Katzman, University of Rochester Medical Center; and
Kaela M. Varberg, Kansas University Medical Center*

2:00 PM–2:05 PM	Course Overview <i>Education Committee Chairperson, Julia M. Gohlke, Virginia Polytechnic Institute and State University</i>
2:05 PM–2:45 PM	Placenta Anatomy, Pathology Review and Maternal Vascular Malperfusion: The Pathology, Clinical Ramifications, and Case Presentation <i>Philip J. Katzman, University of Rochester Medical Center</i>
2:45 PM–3:25 PM	Inflammatory and Fetal Vascular Placental Disorders and Effects on Fetal and Postnatal Neuro and Cardiac Development with Case Presentation <i>Sanjita Ravishankar, Case Western Reserve University</i>
3:25 PM–3:40 PM	Break
3:40 PM–4:05 PM	Placental Programming of Neurodevelopment in Fetal Congenital Heart Disease (CHD) <i>Rachel León, UT Southwestern Medical Center</i>
4:05 PM–4:30 PM	Understanding Placental Inflammation Through Advanced Pathology and Spatial Technologies <i>Sylvie Girard, Mayo Clinic</i>
4:30 PM–4:55 PM	Advancing Placental Research Through Human Trophoblast Stem Cell Models <i>Kaela M. Varberg, Children's Mercy</i>

4:55 PM–5:20 PM Building Human Embryo and Placenta Models from Naïve Stem Cells
Thorold Theunissen, Washington University School of Medicine

5:20 PM–5:30 PM Discussion

5:30 PM–7:00 PM Welcome Reception and Poster Session 1
(Joint with DNTS)

BDRP Posters: P101–P133

BDRP Late-Breaking Posters: P134–P139

Monday, June 15, 2026

7:00 AM–4:30 PM Registration Open

7:00 AM–8:00 AM Education Committee Meeting

7:00 AM–8:00 AM Membership & Engagement Committee and Social Media Workgroup Meeting

8:00 AM–9:00 AM The Ever-Changing Female in Toxicology
Josef Warkany Keynote Lecture
(Joint with DNTS)

Chairperson: Prägati S. Coder, Charles River

Ralph L. Cooper, Quality Scientific Solutions, LLC

9:05 AM–12:05 PM Graduate Student and Postdoctoral Fellow Platform Session 1
Wilson Presentation Award Finalists
Innovator Award Finalists*

Organized by the BDRP Student Affairs Committee and Awards Committee

Chairpersons: Hao Chen, Ionis Pharmaceuticals; Mikayla Watt, University of North Carolina at Chapel Hill; and Julia Y. Hui, Chara Consulting LLC

Sponsored by Johnson & Johnson Matching Funds | Kary E. Thompson, PhD

All presenters will compete for the Wilson Presentation Award. Presenters marked with an asterisk (*) are finalists for the BDRP Innovator Award.

9:05 AM–9:10 AM Introduction

9:10 AM–9:30 AM Characterizing the Association Between *In Vitro* Fertilization and Congenital Heart Defects: A Population-Based Study of 1.5 Million Live Births
Ji Yun Tark, Baylor College of Medicine

9:30 AM–9:50 AM Extracellular Vesicle Dynamics and Molecular Signatures Illuminate Racial Disparities in Preterm Birth*
Xiyu Ge, Baylor College of Medicine

9:50 AM–10:10 AM Mapping Teratogen-Induced Disruption of Embryonic Lineage Trajectories at Single Cell Resolution*
Lin Li, University of California, San Francisco

10:10 AM–10:30 AM Intravenous Maternal EV Delivery Enables Gestational Targeting for Spina Bifida Treatment*

Julia Enterria-Rosales, Baylor College of Medicine

- 10:30 AM–10:45 AM Break
- 10:45 AM–11:05 AM Aryl Hydrocarbon Receptor (AHR) Pathway Drives TBBPA-Induced Cartilage Development Defects
Kanchaka Senarath Pathirajage, Clemson University
- 11:05 AM–11:25 AM Single-Cell Transcriptomic Dissection of Bisphenol-Induced Disruption in Human Osteogenic Differentiation: Implications for Environment-Associated Skeletal Birth Defects
Nneamaka Iwobi, University of California, Irvine
- 11:25 AM–11:45 AM Fine Particulate Matter Disrupts Human Stem Cell Osteogenesis and Reprograms Metabolism to Promote a Developmental Skeletal Risk
Madeline Vera-Colon, University of California, Irvine
- 11:45 AM–12:05 PM Qualitative Brain MRI Abnormalities in Infants with Esophageal Atresia: Patterns Across Gestational Age and Surgical Subtype
Jaewoo Park, Boston Children's Hospital; University College London Medical School; and UCL Great Ormond Street Institute of Child Health, London

12:05 PM–1:30 PM

BDRP Council 1 Meeting

(All current and incoming Council members, as well as Committee Chairs and Vice Chairs.)

1:35 PM–2:05 PM

**Rewiring Bone Developmental Trajectories by Modern Environmental Exposures
F. Clarke Fraser New Investigator Award**

Organized by the BDRP Awards Committee

Chairperson: Julia Y. Hui, Chara Consulting LLC

Nicole R. Sparks, University of California, Irvine

2:10 PM–2:40 PM

**COVID-19 Vaccination During Pregnancy and Birth Defects: Results from the CDC
COVID-19 Vaccine Pregnancy Registry
James G. Wilson Publication Award**

Organized by the BDRP Publications Committee

Chairperson: Wendy Nembhard, University of Arkansas for Medical Sciences

CAPT Andrea Sharma, USPHS, Retired

2:45 PM–3:15 PM

Epidemiology of Congenital Heart Defects: Differences in Burden Across Communities and Population Groups

Patricia Rodier Mid-Career Award for Research and Mentoring

(Joint with DNTS)

Organized by the BDRP and DNTS Awards Committees

Chairperson: Julia Y. Hui, Chara Consulting LLC

Wendy Nembhard, University of Arkansas for Medical Sciences

3:15 PM–3:30 PM

Break

3:30 PM–5:00 PM

Multidisciplinary Research Needs Workshop

Organized by the BDRP Science Committee

*Chairpersons: Katie J. Turner, Johnson & Johnson; and
Kevin H. Denny, WuXi AppTec Sales, LLC*

3:30 PM–3:50 PM Introduction

3:50 PM–4:30 PM Breakout Groups

Breakout Group 1: DART Data for Hazard and Risk Assessment

Leads: Kimberly C. Brannen, Merck; Brian Johnson, Michigan State University; and Austin Martini, Corteva

- Opportunities (*In Silico*, *In Vitro*, and *In Vivo*) for the Use of Machine Learning and AI Methods to Predict Toxicity for Hazard and Risk Assessment
- How to Address “Not Ready Yet” Applications
- How to Address Regulatory and Implementation-Related Challenges

Breakout Group 2: Birth Defects Research

Leads: Katie J. Turner, Johnson & Johnson; and Yanmin Zhu, Brigham and Women’s Hospital and Harvard Medical School

- Use of AI for Information on Prenatal Exposures and Birth Defect Risk by Clinicians, Researchers, and Patients
- Use of AI/ML for Birth Defect Diagnosis, Screening, and Hazard/Risk Prediction in the Clinical Setting
- How to Ensure the Reliability, Reproducibility, and Transparency of Data

Breakout Group 3: Environmental Exposures Research and Human Health Outcomes

Leads: Bevin E. Blake, NIEHS Division of Translational Toxicology; and Julia M. Gohlke, Virginia Polytechnic Institute and State University

- Use of AI/ML for Systematic Reviews Related to Environmental Exposures: What Is Needed to Ensure Reliable Assessments?

- Opportunities for Use of AI/ML to Integrate Large Datasets to Assess Exposures and Health Outcomes in Different Populations
- How to Address Challenges with This Type of Approach

4:30 PM–5:00 PM Discussion

5:00 PM–6:30 PM

Poster Session 2

(Joint with DNTS)

BDRP Posters: P201–P233

BDRP Late-Breaking Posters: P234–P239

6:30 PM–7:45 PM

Trainee Professional Development Workshop

Future-Proof Your Science Career: Building a Professional Brand

Organized by the BDRP Student Affairs Committee

Open to all BDRP Trainees

Cassie Briggs, Success in Science Career Coaching

7:50 PM–9:30 PM

MARTA Trainee Career Event: Networking Social

Hosted by the Middle Atlantic Reproduction and Teratology Association (MARTA)

Organized by the BDRP Student Affairs Committee and MARTA

Open to all BDRP and DNTS Trainees

9:30 PM–11:00 PM

Meet & Greet

Tuesday, June 16, 2026

7:00 AM–3:30 PM

Registration Open

7:00 AM–8:00 AM

Awards Committee Meeting

7:00 AM–8:00 AM

Student Affairs Committee Meeting

8:00 AM–9:00 AM

The Rise of Regulatogens: A Crisis of Insouciance and Dilettantism in the Regulatory DART World—And How We Must Fix It

Robert L. Brent Lecture

(Joint with DNTS)

Chairperson: Wafa A. Harrouk, US Food and Drug Administration

John M. DeSesso, Exponent

9:05 AM–12:05 PM

Reevaluating Fluoride Exposure: Developmental Risks and Emerging Evidence Symposium

(Joint with DNTS)

Chairpersons: Amy Padula, University of California, San Francisco; and Gary M. Shaw, Stanford University

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| 9:05 AM–9:10 AM | Introduction |
| 9:10 AM–9:40 AM | Growing up with Fluoride: An Evanstonian's Perspective on the History of Fluoride Use and Regulations
<i>Andrew A. Rooney, Division of Translational Toxicology, NIEHS</i> |
| 9:40 AM–10:10 AM | Quantifying Maternal Fluoride Exposure and Pregnancy Outcomes: Challenges and Solutions
<i>Dana Goin, Columbia University Mailman School of Public Health</i> |
| 10:10 AM–10:40 AM | Fluoride Exposure and Birth Defects: Current Evidence and Research Gaps
<i>Amy Padula, University of California, San Francisco</i> |
| 10:40 AM–10:55 AM | Break |
| 10:55 AM–11:25 AM | Understanding the Role of Animal Evidence in the NTP Monograph on Fluoride Exposure and Neurodevelopment
<i>Kyla W. Taylor, Division of Translational Toxicology, NIEHS</i> |
| 11:25 AM–11:55 AM | Understanding Potential Neurodevelopmental Risks from Fluoride Exposure in Humans: Past and Present
<i>Ashley Malin, University of Florida</i> |
| 11:55 AM–12:05 PM | Discussion |

9:05 AM–12:00 PM

Platform Session 2

Chairpersons: Connie L. Chen, Health and Environmental Sciences Institute; and Christine P. Curran, Northern Kentucky University

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| 9:05 AM–9:21 AM | Evaluation of Development and Reproductive Toxicity: New Approach Methodologies for Botanicals
<i>Connie Mitchell, HESI</i> |
| 9:21 AM–9:37 AM | Fetal Lung Development, Lung Surfactant, and Early Postnatal Death: An Investigation of a Rat-Specific Mode of Action for a Phenoxy Herbicide
<i>John M. DeSesso, Exponent</i> |
| 9:37 AM–9:53 AM | An ICH S5(R3)-Aligned Pre- and Postnatal Developmental Study in Guinea Pigs (<i>Cavia porcellus</i>), Including Sexual Maturation, Reproductive Performance, and Neurobehavioral Assessments
<i>Jakob T. Gunderson, Charles River</i> |
| 9:53 AM–10:09 AM | First-Trimester ACE Inhibitor Exposure and Risk of Pregnancy Loss in Women with Pre-existing Hypertension (12)
<i>Yanning Wang, University of Florida</i> |

10:09 AM–10:25 AM	Investigating Molecular Alterations Associated with Early Carcinogenic Processes Following Triphenyl Phosphate Exposure in an Alternative Embryonic Cell Model <i>Holly Mackay, Queen's University</i>
10:25 AM–10:41 AM	Valproic Acid Induces Dose- and Sex-Dependent Structural Remodelling of the Placenta in CD-1 Mice <i>Lauren T. L. Brown, Queen's University</i>
10:41 AM–10:56 AM	Break
10:56 AM–11:12 AM	Maternal Genome-Wide Association Studies and Meta-Analyses Across 13 Cohorts of Congenital Heart Defects in Offspring <i>Omobola O. Oluwafemi, UTHealth Houston School of Public Health</i>
11:12 AM–11:28 AM	Obstetric and Fetal Complications Among Pregnant Women with Congenital Heart Disease in a Georgia Medicaid Dataset <i>Vijaya Kancherla, Emory University</i>
11:28 AM–11:44 AM	Prediction of Gestational Diabetes Mellitus (GDM) During First Trimester of Pregnancy by Use of NMR-Based Clinical Metabolomics Screening <i>Indu Lata, Sanjay Gandhi Postgraduate Institute of Medical Sciences</i>
11:44 AM–12:00 Noon	Integrating Transcriptomic Profiles and Differentiation Endpoints to Evaluate Developmental Toxicity in a Human Placental Barrier–Embryo Co-Culture Model <i>Kelly Brant, US Food and Drug Administration/CDER</i>

12:05 PM–1:25 PM

BDRP Past Presidents' and Honorees' Luncheon
(By Invitation Only)

1:30 PM–2:00 PM

Teachers Are Learners Too: Lessons Learned During Four Decades of STEM Education
Agnish Fellowship Lecture

Organized by the BDRP Education Committee

Chairperson: Julia M. Gohlke, Virginia Tech

Christine P. Curran, Northern Kentucky University

2:05 PM–3:05 PM

**The Value of NHPs for DART Risk Assessment
BDRP and European Teratology Society (ETS) Exchange Lecture**

Chairpersons: Prägati S. Coder, Charles River; and Stephanie Clubb, Charles River

BDRP

Natasha Catlin, Pfizer, Inc. (Presented by Christopher J. Bowman, Pfizer Inc.)

ETS

C. Marc Luetjens, LabCorp Early Development Services GmbH

3:10 PM–6:10 PM

**What's Next in Birth Defects Research? The Future of Science and Innovation in
Understanding Congenital Anomalies Symposium**

(Joint with DNTS)

*Chairpersons: Nicole R. Sparks, University of California, Irvine; and
Mikayla Watt, University of North Carolina at Chapel Hill*

3:10 PM–3:15 PM Introduction

3:15 PM–3:50 PM Multi-omic Surveys of the Placenta at the Intersection Between
the Prenatal Environment and Disease
*Maya Deyssenroth, Columbia University Mailman School of
Public Health*

3:50 PM–4:25 PM Modelling Persistent Neurotoxic Effects of Trans-placental
Developmental Exposures
Anke M. Tukker, Purdue University

4:25 PM–4:40 PM Break

4:40 PM–5:15 PM Integrating Multi-omics to Uncover Hidden Risk Factors for
Birth Defects
Jeremy Schraw, Baylor College of Medicine

5:15 PM–5:50 PM Modeling Birth Defects Using Pluripotent Stem Cells
Rebekah M. Charney, University at Buffalo

5:50 PM–6:10 PM Discussion

3:10 PM–6:10 PM

**Including Pregnant and Lactating Women in Clinical Trials: From the Past to the
Future Symposium**

Organized by the BDRP Public Affairs Committee

*Chairpersons: José F. Cordero, University of Georgia; and Leyla Sahin, US Food and
Drug Administration*

3:10 PM–3:15 PM Introduction
José F. Cordero, University of Georgia

3:15 PM–3:45 PM Overcoming Real and Perceived Barriers to the Inclusion of
Pregnant and Lactating Women in Clinical Trials
Janet R. Hardy, Consultant

3:45 PM–4:10 PM Scope of the ICH E21 Guidelines, General Considerations
Leyla Sahin, US Food and Drug Administration

4:10 PM–4:35 PM Overview of How Preclinical Data and Nonclinical Data Can Be
Used

Dinesh Stanislaus, GSK

4:35 PM–4:50 PM

Break

4:50 PM–5:20 PM

Considerations for Enrollment: Pregnant Women
Corinne De Vries, European Medicines Agency

5:20 PM–5:45 PM

Considerations for Enrollment: Breastfeeding Women
Laura Shaughnessy, UCB Pharmaceuticals

5:45 PM–6:10 PM

Discussion

6:15 PM–7:45 PM

Awards Presentation and Reception

Graduate Student and Postdoctoral Fellow Travel Awards

Edward W. Carney Trainee Awards

Wilson Presentation Awards

Marie Taubeneck Award

James C. Bradford Memorial Student Poster Awards

Edward W. Carney Distinguished Service Award

BDRP Innovator Award

Recognition of Other Awards Presented throughout the Week

Wednesday, June 17, 2026

6:30 AM–7:30 AM

BDRP 45th Annual Volleyball Game

7:30 AM–1:30 PM

Registration Open

8:00 AM–8:45 AM

Annual Business Meeting

8:50 AM–11:50 AM

Exposome Research: Longitudinal Cohorts as a Critical Piece of the Puzzle Symposium
(Joint with DNTS)

Chairpersons: Suzanne E. Fenton, NC State University; and Lida Chatzi, University of Southern California

8:50 AM–8:55 AM

Introduction
Suzanne E. Fenton, NC State University

8:55 AM–9:30 AM

The Early Life Exposome and the Origins of Childhood Metabolic Disease: From Molecular Signatures to Precision Prevention
Lida Chatzi, University of Southern California

9:30 AM–10:05 AM	Unhealthy Environments and Pregnancy Outcomes: The Power of Nontargeted Analysis <i>Dimitri Abrahamsson, University of California, San Francisco</i>
10:05 AM–10:25 AM	Warkany Tea
10:25 AM–10:50 AM	Integrating Exposomics and Human-Relevant NAMs to Identify Developmental Toxicants <i>Joshua F. Robinson, University of California, San Francisco</i>
10:50 AM–11:25 AM	Exposome and the ECHO Program: What the Future Holds <i>Susan Laessig, Environmental Influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health</i>
11:25 AM–11:50 PM	Discussion

8:50 AM–11:34 AM

Platform Session 3

Chairpersons: Susan Y. Euling, US Environmental Protection Agency; and Thomas B. Knudsen, Indiana University

8:50 AM–9:06 AM	Quantitative Simulation of Blood Island Morphogenesis <i>Thomas B. Knudsen, Indiana University</i>
9:06 AM–9:22 AM	Single-Cell Mapping of Neural Tube Defect Genes in Human and Rodent Embryogenesis <i>Julia do Amaral Gomes, University of California, San Francisco</i>
9:22 AM–9:38 AM	A Genome-Wide Association Study of Anotia/Microtia in a Predominantly Hispanic US Sample Identifies Risk Variant Near ROBO1, Association with Indigenous Ancestry <i>Priya B. Shetty, Baylor College of Medicine</i>
9:38 AM–9:54 AM	Z-Drug Initiation During Pregnancy and Risk of Adverse Neonatal Outcomes <i>Chih-Wan Grace Lin, Brigham and Women's Hospital and Harvard Medical School</i>
9:54 AM–10:10 AM	Trio-Based Whole Genome Sequencing Reveals Inherited Rare Structural Variation in the Genetic Architecture of Spina Bifida <i>Paul Wolujewicz, Quinnipiac University and Weill Cornell Medicine</i>
10:10 AM–10:30 AM	Warkany Tea
10:30 AM–10:46 AM	Cord Blood Toxic Metal Concentrations and Developmental Toxicity Fingerprints: A Multi-Endpoint Developmental and Reproductive Toxicology Analysis at Birth <i>Vanitha Thurairasu, The National University of Malaysia</i>

- 10:46 AM–11:02 AM *In Vitro* Maturation of Oocytes and Whole Embryo Transfer in the Mouse
Marie Bouressam, Charles River
- 11:02 AM–11:18 AM Bulk RNA-Seq Identifies Mesoderm Lineage-Specific Toxicity Signatures of Environmental Skeletal Toxicants
Piunik Babakhanins, University of California, Riverside
- 11:18 AM–11:34 AM Why Thalidomide Embryopathy, Mediated by Embryonic Vascular Disruption, Created Congenital Long Bone Deficiencies and Endowment of the Science of Teratology: No Flow, No Grow!
David R. Hootnick, SUNY Upstate Medical University

12:00 Noon–1:00 PM Public Affairs Committee Meeting

12:00 Noon–1:00 PM Publications Committee Meeting

12:00 Noon–1:00 PM Science Committee Meeting

1:15 PM–4:15 PM Connecting the Dots: Interpreting Teratogenic Risk Across Study Types and the Path to Cross-Disciplinary Collaboration Symposium

Chairpersons: Yanmin Zhu, Harvard Medical School and Brigham and Women's Hospital; Sonia Hernández-Díaz, Harvard T.H. Chan School of Public Health; and Krista F. Huybrechts, Harvard Medical School and Brigham and Women's Hospital

1:15 PM–1:20 PM Introduction

1:20 PM–1:55 PM From Bench to Belly: Interpreting Nonclinical Data in Teratogenic Risk Assessment
George P. Daston, Procter & Gamble Company

1:55 PM–2:30 PM Clinical Clues: When Case Reports Signal Teratogenic Risk
Sonja A. Rasmussen, Johns Hopkins School of Medicine

2:30 PM–2:45 PM Break

2:45 PM–3:20 PM Evidence in the Population: Insights from Registry and Epidemiologic Data
Lynne Mofenson, Elizabeth Glaser Pediatric AIDS Foundation

3:20 PM–3:55 PM From Evidence to Action: Challenges in Evidence Synthesis and the Need for Cross-Disciplinary Collaboration in Teratogenicity Evaluation
Sarah G. Običan, University of South Florida
Presented by Nevena Krstić, University of South Florida

3:55 PM–4:15 PM Session Summary and Discussion

1:15 PM–4:15 PM

The Next Generation of NAMs: Evaluating Toxicities in Reproductive Tissues Symposium

*Chairpersons: Connie L. Chen, Health and Environmental Sciences Institute; and
Prägati S. Coder, Charles River Laboratories, Ashland LLC*

Sponsored by the Health and Environmental Sciences Institute

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|-----------------|---|
| 1:15 PM–1:20 PM | Introduction |
| 1:20 PM–2:00 PM | Women's Reproductive Health: Ovary-on-a-Chip and Female System-on-a-Chip
<i>Shuo Xiao, Rutgers University</i> |
| 2:00 PM–2:40 PM | Microengineered Modeling of Human Placental Barrier Dysfunction during Environmental Metal Exposure
<i>Pouria Fattahi, University of Georgia</i> |
| 2:40 PM–2:55 PM | Break |
| 2:55 PM–3:35 PM | Modeling the Complexities of Mammary Gland Growth and Function
<i>Russ Hovey, University of California, Davis</i> |
| 3:35 PM–4:05 PM | Testicular Organoids to Model Testis Function <i>In Vitro</i>
<i>Ina Dobrinski, University of Calgary</i> |
| 4:05 PM–4:15 PM | Discussion |

4:30 PM–6:30 PM

BDRP Council 2 Meeting
(2026–2027 Council members)