

Society for Birth Defects Research and Prevention (BDRP)
64th Annual Meeting
Addressing Disparities in Birth Defects Research and Prevention
Wyndham Grand Pittsburgh Downtown, Pittsburgh, PA
June 22–26, 2024

As of March 4, 2024

The times listed are in Eastern Daylight Time.

Friday, June 21, 2024

3:00 PM–6:00 PM Registration Open

Saturday, June 22, 2024

7:30 AM–5:00 PM Registration Open

8:00 AM–8:30 AM Education Course Coffee and Pastries
(Education Course Session 1 Registrants Only)

8:30 AM–12:00 Noon Education Course Session 1
The Role of the Microbiome in Normal and Abnormal Development
(Separate Registration Required)
Organized by the Education Committee
Chairperson: Terry C. Hrubec, E. Via Virginia College of Osteopathic Medicine

8:30 AM–8:40 AM Welcome
BDRP President, Anthony M. DeLise,
Novartis Pharmaceuticals Corporation

8:40 AM–8:45 AM Course Overview
Education Committee Chairperson,
Terry C. Hrubec, E. Via Virginia College of
Osteopathic Medicine

8:45 AM–9:25 AM Introduction to the Microbiome: How the Various
Microbiomes Are Established, the Influence of the
Microbiome on Maternal Health
Terry C. Hrubec, E. Via Virginia College of
Osteopathic Medicine

9:25 AM–9:55 AM Maternal-Fetal-Gut Microbiome Axis: How the
Maternal Gut Microbiome Affects Development of
the Fetus
Lori L. Driscoll, The Colorado College

9:55 AM–10:10 AM Break

10:10 AM–10:50 AM Placenta as Mediator of Maternal Microbiome
Effects on the Fetus and Newborn
Carrie M. Salafia, Placental Analytics, LLC

10:50 AM–11:30 PM Microbiome and Development of the Immune System
Eldin Jašarević, University of Pittsburgh School of Medicine

11:30 AM–12:00 Noon Discussion

12:00 Noon–1:30 PM Lunch on Your Own

1:30 PM–5:00 PM Education Course Session 2
Stem Cells: The Role and Promise in Birth Defects Research
(Separate Registration Required)
Organized by the Education Committee
Chairperson: Terry C. Hrubec, E. Via Virginia College of Osteopathic Medicine

This course will explore the role of stem cells in birth defects research.

1:30 PM–1:35 PM Course Overview
Education Committee Chairperson,
Terry C. Hrubec, E. Via Virginia College of Osteopathic Medicine

1:35 PM–2:20 PM Introduction to Stem Cells, the Different Kinds of Stem Cells, and How to Collect and Maintain Them
Lena Smirnova, Johns Hopkins University

2:20 PM–2:55 PM Regulatory Concerns: DART
Shawna Jackman, Charles River Laboratories

2:55 PM–3:10 PM Break

3:10 PM–3:55 PM A Path to Decode Human Development via Novel Stem Cell-Based Embryo Models
Mo Ebrahimkhani, University of Pittsburgh

3:55 PM–4:40 PM Clinical Applications: Stem Cell Therapy
Amy E. O'Connell, Boston Children's Hospital

4:40 PM–5:00 PM Discussion

5:00 PM–7:00 PM Council 1 Meeting
(Includes incoming Council members and committee chairs and vice-chairs)

Sunday, June 23, 2024

7:00 AM–6:00 PM Registration Open

7:00 AM–8:00 AM 2025 Program Committee Meeting

8:00 AM–8:15 AM President's Welcome
BDRP President, Anthony M. DeLise, Novartis Pharmaceuticals Corporation

8:15 AM–9:00 AM	Josef Warkany Lecture Understanding of Mechanisms of Environmental Teratogenesis: From Mercury to Nutrition <i>(Joint with DNTS)</i> <i>Chairperson: Anthony M. DeLise, Novartis Pharmaceuticals Corporation</i> <i>Lecturer: Christina Chambers, University of California San Diego</i>
9:05 AM–12:05 PM	Graduate Student and Postdoctoral Fellow Platform Session 1 <i>Organized by the Student Affairs Committee</i> <i>Chairperson: Christopher J. Bowman, Pfizer Inc.</i>
12:05 PM–1:30 PM	Lunch on Your Own
12:05 PM–1:30 PM	Past Presidents' and Honorees' Luncheon <i>(By Invitation Only)</i>
12:30 PM–1:30 PM	Diversity, Equity, and Inclusion Workgroup Meeting
12:30 PM–1:30 PM	Education Committee Meeting
1:30 PM–2:00 PM	F. Clarke Fraser New Investigator Award Building a Career in Birth Defects Epidemiology Through Collaboration and Innovation <i>Chairperson: Bethany R. Hannas, Eli Lilly and Company</i> <i>Lecturer: Jeremy Schraw, Baylor College of Medicine</i>
2:05 PM–2:35 PM	James G. Wilson Publication Award An Improved Multicellular Human Organoid Model for the Study of Chemical Effects on Palatal Fusion <i>Chairperson: Wendy Nembhard, University of Arkansas for Medical Sciences</i> <i>Lecturer: Cynthia J. Wolf, US Environmental Protection Agency</i>
2:40 PM–3:45 PM	Innovator Award Finalists Platform Session 2 <i>Organized by the Awards Committee</i> <i>Chairperson: Bethany R. Hannas, Eli Lilly and Company</i> Presenting author is <u>underlined</u>.
3:45 PM–4:00 PM	Break
4:00 PM–4:30 PM	Patricia Rodier Mid-Career Award for Research and Mentoring Reproductive Toxicology in Industry, Research, and Mentoring is the Special Sauce <i>(Joint with DNTS)</i> <i>Chairpersons: Bethany R. Hannas, Eli Lilly and Company; and Stephanie A Godleski, Rochester Institute of Technology</i> <i>Lecturer: Christopher J. Bowman, Pfizer Inc.</i>

- 4:35 PM–6:00 PM** **Multidisciplinary Research Needs Workshop**
Organized by the Science Committee
Chairperson: Kary E. Thompson, Janssen Pharmaceuticals
- 6:00 PM–7:30 PM** **Poster Session 1 and Exhibits Attended**
(Joint with DNTS)
Sponsored by WuXi AppTec
- 7:30 PM–9:30 PM** **Graduate Student and Postdoctoral Fellows Career Event**
Hosted by Middle Atlantic Reproduction and Teratology Association (MARTA)

Monday, June 24, 2024

- 7:00 AM–4:30 PM** **Registration Open**
- 7:00 AM–8:00 AM** ***Birth Defects Research Journal* Editorial Board Meeting**
- 7:00 AM–8:00 AM** **Communications Coordination Committee Meeting**
- 8:00 AM–9:00 AM** **Keynote Lecture**
Putting the Pieces Together: Head to Toe (L1)
(Joint with DNTS)
Chairperson: Philip Lupo, Baylor College of Medicine
Speaker: Wendy K. Chung, Boston Children’s Hospital
- 9:05 AM–12:00 Noon** **Congenital Anomalies in Minoritized Populations: An Overview of Factors Affecting Prevalence and Outcomes Symposium**
(Joint with DNTS)
Chairpersons: Jeremy Schraw, Baylor College of Medicine; and Wendy Nembhard, University of Arkansas for Medical Sciences
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| 9:05 AM–9:15 AM | | Introduction
<i>Jeremy Schraw, Baylor College of Medicine</i> |
| 9:15 AM–9:45 AM | S1 | Using Birth Defects Surveillance Data to Understand and Address Health Disparities
<i>Wendy Nembhard, University of Arkansas for Medical Sciences</i> |
| 9:45 AM–10:15 AM | S2 | Congenital Anomalies among American Indian and Alaskan Native People in Oklahoma
<i>Amanda Janitz, University of Oklahoma Health Sciences Center</i> |
| 10:15 AM–10:30 AM | | Break |
| 10:30 AM–11:00 AM | S3 | Voluntary Folic Acid Fortification Policy of Corn Masa Flour and Tortillas in the US and Neural Tube Defects Among Hispanics
<i>Vijaya Kancherla, Emory University</i> |

	11:00 AM–11:30 AM	S4	Neighborhood Sociodemographic Characteristics and Prevalence of Congenital Anomalies in Texas <i>Jeremy Schraw, Baylor College of Medicine</i>
	11:30 AM–12:00 Noon		Discussion
9:05 AM–12:00 Noon	Platform Session 3		
12:00 Noon–2:00 PM	Lunch on Your Own		
12:05 PM–1:45 PM	Professional Development Lunch Workshop Science Communication (Separate Registration Required) <i>Organized by the Student Affairs Committee</i> <i>Chairpersons: Christopher J. Bowman, Pfizer Inc.; and Deirdre K. Tucker, Crinetic's Pharmaceuticals</i>		
	12:05 PM–12:10 PM		Lunch Pick-Up
	12:10 PM–12:50 PM	W1	Let's Talk About Science: Practice, Practice, Practice! <i>Barbara Kaplan, Mississippi State University, College of Veterinary Medicine</i>
	12:50 PM–1:20 PM		Breakout Session
	1:20 PM–1:45 PM		Discussion
2:00 PM–2:30 PM	Agnish Fellowship Lecture <i>Chairperson: Terry C. Hrubec, E. Via Virginia College of Osteopathic Medicine</i> <i>Lecturer: Kenneth L. Jones, UCSD, CA MotherToBaby</i>		
2:35 PM–5:30 PM	Chemicals Altering Signaling Molecules and Developmental Pathways Symposium (Joint with DNTS) <i>Organized by the Public Affairs Committee</i> <i>Chairpersons: Christine P. Curran, Northern Kentucky University; and Rajesh C. Miranda, Texas A&M Health Science Center</i>		
	2:35 PM–2:40 PM		Introduction
	2:40 PM–3:15 PM	S5	Pdgfra/mTOR Signaling in Alcohol Teratogenesis <i>Johann K. Eberhart, The University of Texas at Austin</i>
	3:15 PM–3:50 PM	S6	Alcohol and Cannabinoids Act Through Overlapping Pathways Critical for Brain and Face Development <i>Karen E. Boschen, SUNY Upstate Medical University</i>
	3:50 PM–4:05 PM		Break

4:05 PM–4:40 PM	S7	Executive Function Deficits after Prenatal Opioid Exposure Relate to Changes in Microglia <i>Brittany Smith, Northern Kentucky University</i>
4:40 PM–5:15 PM	S8	The Role of the Aryl Hydrocarbon Receptor in Multi-Organ Developmental Disorders <i>Christine P. Curran, Northern Kentucky University</i>
5:15 PM–5:30 PM		Discussion

2:35 PM–5:30 PM

Genetic and Environmental Factors Driving Facial Morphology and Dysmorphology Symposium

Chairpersons: Seth M. Weinberg, University of Pittsburgh; and John R. Shaffer, University of Pittsburgh

2:35 PM–2:40 PM		Introduction
2:40 PM–3:10 PM	S9	The Genetic Architecture of the Human Face: From Morphology to Dysmorphology <i>Seth M. Weinberg, University of Pittsburgh</i>
3:10 PM–3:40 PM	S10	Quantifying Craniofacial Variation during Development: Implications for Understanding Genotype-Phenotype Correlation and Structural Birth Defects <i>Rebecca M. Green, University of Pittsburgh</i>
3:40 PM–3:55 PM		Break
3:55 PM–4:25 PM	S11	Gene-Environment Interactions in Nonsyndromic Orofacial Clefting <i>Mary L. Marazita, University of Pittsburgh</i>
4:25 PM–4:55 PM	S12	Mechanism-Based Identification of Environmental Risk Factors for Orofacial Clefting <i>Robert J. Lipinski, University of Wisconsin</i>
4:55 PM–5:30 PM		Discussion

5:30 PM–7:00 PM

Poster Session 2 and Exhibits Attended
(Joint with DNTS)

Tuesday, June 25, 2024

7:00 AM–3:30 PM	Registration Open
7:00 AM–8:00 AM	Membership Committee Meeting
7:00 AM–8:00 AM	Publications Committee Meeting
7:00 AM–8:00 AM	Science Committee Meeting

8:00 AM–10:55 AM

Neural Tube Defects in a Post-Folate Fortified World Symposium

(Joint with DNTS)

*Chairpersons Robert M. Cabrera, Baylor College of Medicine; and
Richard H. Finnell, Baylor College of Medicine*

8:00 AM–8:10 AM

Introduction

Richard H. Finnell, Baylor College of Medicine

8:10 AM–8:40 AM

S13

Genomic Advances in Understanding the Etiology
of Neural Tube Defects

M. Elizabeth Ross, Weill Cornell Medicine

8:40 AM–9:10 AM

S14

Policy Matters: Folate Fortification,
Pharmaceutical Interactions, and Neural Tube
Defect

Robert M. Cabrera, Baylor College of Medicine

9:10 AM–9:25 AM

Break

9:25 AM–9:55 AM

S15

Folic Acid and Birth Defect Prevention: Metabolic
Regulation of Biomechanical Forces Explain the
Beneficial Effects of Folic Acid in Preventing
Preventable Birth Defects

Richard H. Finnell, Baylor College of Medicine

9:55 AM–10:25 AM

S16

Precision Medicine Approaches for Treating
Spina Bifida

Bruna Corradetti, Baylor College of Medicine

10:25 AM–10:55 AM

Discussion

8:00 AM–10:55 AM

Platform Session 4

11:00 AM–12:00 Noon

Robert L. Brent Lecture—Teratogen Update

(Joint with DNTS)

Chairperson: Philip Lupo, Baylor College of Medicine

Lecturer: Tracey Woodruff, University of California San Francisco

12:00 Noon–1:45 PM

Lunch and Learn Mini Course

Climate Change: Heat and Wildfires

(Separate Registration Required)

Organized by the Education Committee

Chairperson: Terry C. Hrubec, E. Via Virginia College of Osteopathic Medicine

12:00 Noon–12:10 PM

Lunch Pick-Up

12:10 PM–12:45 PM

Ambient Temperature, Heat Stress, and Adverse
Birth Outcomes

Julia M. Gohlke, Virginia Tech

12:45 PM–1:20 PM

The Effects of Wildfires on Development

*Rebecca J. Schmidt, University of California,
Davis*

	1:20 PM–1:45 PM	Discussion
12:00 Noon–2:00 PM	Lunch on Your Own	
2:00 PM–5:00 PM	New Approaches to Elucidate Contributors to Placental Dysfunction Symposium <i>Organized by the Science Committee</i> <i>Chairpersons: Suzanne E. Fenton, NC State University; and Thomas B. Knudsen, US Environmental Protection Agency</i>	
	2:00 PM–2:05 PM	Introduction
	2:05 PM–2:40 PM	S17 Placental Dysfunction in CD-1 Mice Following Gestational Exposure to Per- and Polyfluoroalkyl Substances <i>Bevin E. Blake, US Environmental Protection Agency</i>
	2:40 PM–3:15 PM	S18 AOP Networks for PFAS-Induced Fetal Growth Restriction and Mortality in Rodents <i>John M. Rogers, ToxStrategies, Inc.</i>
	3:15 PM–3:30 PM	Break
	3:30 PM–4:05 PM	S19 Chorionic Villus-Derived Human Trophoblast Stem Cells: A Novel Approach to Enhance Genetic Diversity in Toxicity Testing <i>Kaela M. Varberg, Children's Mercy Research Institute</i>
	4:05 PM–4:40 PM	S20 Novel Organoid Models and Single-Cell Technologies: Enhanced Understanding of Innate Immunity at the Human Maternal-Fetal Interface <i>Carolyn B. Coyne, Duke University</i>
	4:40 PM–5:00 PM	Discussion

Wednesday, June 26, 2024

6:30 AM–7:30 AM	BDRP 43rd Annual Volleyball Game
7:30 AM–1:30 PM	Registration Open
8:00 AM–9:00 AM	BDRP and ETS Exchange Lecture Labeling and Communication Risk <i>Chairpersons: Anthony M. DeLise, Novartis Pharmaceuticals Corporation; and Jason C. Manton, Exponent International</i> BDRP <i>Leyla Sahin, MD, US FDA, CDER</i> ETS <i>Helen-Marie Dunmore, Charles River</i>

9:05 AM–12:15 PM

Developmental Neuropathology in Rodents: Chemicals versus Pediatric Pharmaceuticals Workshop

(Joint with DNTS)

Chairpersons: Pragati S. Coder, Charles River Laboratories, Ashland LLC; and Lori A. Dostal, LD DART Consulting

9:05 AM–9:25 AM	W2	Regulatory Requirements for the Assessment of Developmental Neuropathology Following Chemical and Pharmaceutical Exposure <i>Pragati S. Coder, Charles River Laboratories, Ashland LLC</i>
9:25 AM–10:05 AM	W3	Neuropathology Evaluation of Olney Lesions in Regulatory Drug Development Toxicology Studies <i>Deepa Rao, Greenfield Pathology Services</i>
10:05 AM–10:35 AM		Warkany Tea
10:35 AM–11:10 AM	W4	Developmental Neurotoxicity (DNT) and Brain Morphometric Evaluations for Chemicals <i>Catherine Picut, Charles River Pathology Associates Inc.</i>
11:10 AM–11:40 AM	W5	Neuropathology Evaluation in Juvenile Animal Toxicity (JAT) Studies for Pharmaceuticals <i>Brad Bolon, GEMpath, Inc.</i>
11:40 AM–12:15 PM		Panel Discussion

12:15 PM–1:15 PM

Lunch on Your Own

12:15 PM–1:15 PM

Awards Committee Meeting

12:15 PM–1:15 PM

Public Affairs Committee Meeting

12:15 PM–1:15 PM

Student Affairs Committee Meeting

1:20 PM–4:15 PM

DART Strategies for Oligonucleotides Symposium

Chairpersons: Bethany R. Hannas, Eli Lilly and Company; and Michael V. Templin, Charles River Laboratories

Supported by the Health and Environmental Sciences Institute

1:20 PM–1:55 PM	S21	Oligonucleotides: What Are They and What Challenges Do They Bring to DART Assessments? <i>Tacey E. White, Tacey White Consulting</i>
1:55 PM–2:30 PM	S22	Principles of Study Design for DART Studies with Oligonucleotides <i>Bethany R. Hannas, Eli Lilly and Company</i>
2:30 PM–2:45 PM		Break

2:45 PM–3:20 PM	S23	Novel DART Approaches and Considerations for Newer Classes of Oligonucleotides <i>TBA</i>
3:20 PM–3:55 PM	S24	DART Assessment for Oligonucleotide-Based Therapeutics: A CDER Perspective <i>Ronald Wange, FDA, CDER</i>
3:55 PM–4:15 PM		Discussion

4:30 PM–5:45 PM	Annual Meeting Awards Presentation and Business Meeting Graduate Student and Postdoctoral Fellow Travel Awards Wilson Presentation Awards Marie Taubeneck Award James C. Bradford Memorial Student Poster Awards Edward W. Carney Trainee Awards BDRP Innovator Award Edward W. Carney Distinguished Service Award Recognition of Other Awards Presented throughout the Week Annual Business Meeting
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6:30 PM–9:30 PM	Closing Celebration
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Thursday, June 27, 2024

7:00 AM–9:30 AM	Council 2 Meeting (2024–2025 Council members)
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