



National Institute of
Environmental Health Sciences



Outstanding New Environmental
Scientist (ONES) and
Revolutionizing Innovative,
Visionary Environmental Health
Research (RIVER)
Awardee Symposium

July 27-28, 2023

NIEHS Building 101, Rodbell Auditorium · Research Triangle Park, N.C.

AGENDA

Thursday, July 27, Day One

- 8:30-9:00 a.m. Registration
- 9:00-9:10 a.m. **Welcoming Remarks**
Trevor Archer, Deputy Director, *National Institute of Environmental Health Sciences*
- Plenary Session 1:** **Moderator, Bonnie Joubert**, *Population Health Branch*
- 9:10-9:25 a.m. **Extracellular Vesicles in Environmental Epidemiology Studies of Aging**
Andrea Baccarelli
- 9:25-9:40 a.m. **Indoor Air Quality and Respiratory Morbidity in School-Aged Children With Bronchopulmonary Dysplasia**
Jonathan Gaffin
- 9:40-9:55 a.m. **CXCL10/CXCR3 Regulation of Ozone-Induced Epithelial Permeability**
Robert Tighe
- 9:55-10:10 a.m. **Plenary Session 1 Q&A**
- 10:10-10:20 a.m. Break
- Plenary Session 2:** **Moderator, Thad Schug**, *Population Health Branch*
- 10:20-10:35 a.m. **Environmental Liver Disease**
Matt Cave
- 10:35-10:50 a.m. **Environmental Chemicals, Adiposity, and Bone Accrual Across Adolescence**
Abby Fleisch
- 10:50-11:05 a.m. **Environmental Drivers of Metabolic Disease Risk**
Robert Sargis
- 11:05-11:20 a.m. **Plenary Session 2 Q&A**
- 11:20 a.m.-12:20 p.m. **Panel Discussion: ONES to RIVER**
Moderator: Carol Shreffler (Dana Dolinoy, Yu-Ying He, Patricia Opresko, Brandon Pierce, Donna Zhang)
- 12:20-1:05 p.m. Lunch
- 1:05-1:50 p.m. **Poster Session** (Odd numbers)
- 1:50-2:35 p.m. **Poster Session** (Even numbers)
- Plenary Session 3:** **Moderator, Frederick Tyson**, *Genes, Environment, and Health Branch*
- 2:35-2:50 p.m. **Developmental Exposures, Stem Cell Reprogramming, and Breast Cancer Disparities**
Justin Colacino
- 2:50-3:05 p.m. **Mechanism of Eukaryotic Environmental Mutagenesis**
Graham Walker
- 3:05-3:20 p.m. **Chromosome Instability Drives Metal-Induced Lung Cancer**
John Wise
- 3:20-3:35 p.m. **Plenary Session 3 Q&A**



- Plenary Session 4:** **Moderator, Daniel Shaughnessy**, *Exposure, Response, and Technology Branch*
- 3:35-3:50 p.m. **Developing Metabolomic Technologies to Advance Environmental Exposure Analysis**
Gary Patti
- 3:50-4:05 p.m. **Hypermutation in Bacteria and Humans**
Myron Goodman
- 4:05-4:20 p.m. **Early Warning Systems for Childhood and Adult Disorders**
Manish Arora
- 4:20-4:35 p.m. **Plenary Session 4 Q&A**
- 4:35-5:05 p.m. **Update on the NIEHS 2024-2028 Strategic Plan**
Sheila Newton
- 5:05-5:15 p.m. **Wrap-Up Day 1**

Friday, July 28, Day Two

- 8:30-9:00 a.m. Registration
- Plenary Session 5:** **Moderator, Michelle Heacock**, *Hazardous Substances Research Branch*
- 9:00-9:15 a.m. **NEIL1, the Tale of a Disordered Tail**
Aishwarya Prakash
- 9:15-9:30 a.m. **Aberrant DNA Repair and Lupus**
Joann Sweasy
- 9:30-9:45 a.m. **Watching Cooperative Interactions Between Base and Nucleotide Excision Repair Proteins**
Ben Van Houten
- 9:45-10:00 a.m. **Chemical Biology of DNA and RNA Alkylation**
Yinsheng Wang
- 10:00-10:15 a.m. **Plenary Session 5 Q&A**
- 10:15-10:25 a.m. Break
- Plenary Session 6:** **Moderator, Jonathan Hollander**, *Genes, Environment, and Health Branch*
- 10:25-10:40 a.m. **Xenobiotic Receptors in Mediating the Environmental Effects on Human Disease and Morbidity**
Wen Xie
- 10:40-10:55 a.m. **Autophagy: A Vulnerable Target to Manganese Neurotoxicity and a Novel Therapeutic Mechanism of Drp1 Inhibition**
Kim Tieu
- 10:55-11:10 a.m. **Activation of the Ah Receptor and Epithelial Integrity**
Gary Perdew
- 11:10-11:25 a.m. **Protein Kinase Signaling in the Genotoxic Stress Response**
Michael Yaffe
- 11:25-11:40 a.m. **Plenary Session 6 Q&A**
- Plenary Session 7:** **Moderator, Abee Boyles**, *Population Health Branch*
- 11:40-11:55 a.m. **Tris(1,3-dichloro-2-propyl) Phosphate: In-Vehicle Exposure and Health Risks to Southern California Commuters**
David Volz
- 11:55 a.m.-12:10 p.m. **Mechanisms of Particulate Matter-Driven Infant Respiratory Disease**
Natalie Johnson
- 12:10-12:25 p.m. **Early-Life Phthalate and Perfluoroalkyl Substance Exposures and Childhood Bone Health**
Jessie Buckley
- 12:25-12:40 p.m. **Environmental-Use Chemicals That Target Pathways Linked to Autism and Other Neurodevelopmental Disorders**
Mark Zylka
- 12:40-12:55 p.m. **Plenary Session 7 Q&A**
- 12:55-1:00 p.m. **Closing Remarks, David Balshaw**
Director, Division of Extramural Research and Training

Poster Sessions

Poster #	Name	Poster Title
1	Alison Bernstein	Dieldrin-Induced Differential Gene Methylation and Parkinsonian Toxicity
2	Andres Cardenas	Prenatal and Postnatal Exposure to Environmental Mixtures: Neurodevelopment and DNA Methylation Biomarkers
3	Shobhan Gaddameedhi	Effects of Environmental Circadian Disruption and Solar UVB Exposure on Genomic Instability and Skin Carcinogenesis
4	Salik Hussain	Impact of Particle and Ozone Inhalation Co-Exposure on Alveolar Epithelial Regeneration
5	Allan Just	Extreme Temperature, Humidity, Air Pollution, and Spontaneous Preterm Birth
6	Timothy Moran	Role of the Indoor Exposome in Peanut Allergy Development
7	Jessica Oakes	Cardiopulmonary Risk Assessment From Smoke Exposure at the Wildland Urban Interface
8	Youssef Oulhote	The Interplay of Early-Life Exposure to Environmental Pollutants and Folate System in the Etiology of Autistic Behaviors
9	Amy Padula	Wildfires and Intentional Biomass Burning in California and Preterm Birth
10	Alison Paquette	Assessing How Prenatal Phthalate Exposure Disrupts Placental Transcriptional Regulation and Contributes to Changes in Gestational Length
11	Jessica Plavicki	Novel Functions for the Aryl Hydrocarbon Receptor and the High Mobility Group Transcription Factor Sox9b in Brain Development
12	Mary Rice	A Randomized Controlled Trial of Home Air Purification for Eosinophilic COPD
13	Yogesh Saini	Understanding the Role of Myeloid Cells in Ozone-Induced Airway Disease
14	Phoebe Stapleton	Microvascular Mechanisms of Growth Restriction After Environmental Toxicant Exposure
15	Alessandro Venosa	Role of Surfactant Protein C Mutation and Ozone Exposure in the Exacerbation of Pulmonary Fibrosis
16	Caren Weinhouse	Understanding Mechanisms of Liver Carcinogenesis Following Developmental BPA Exposure
17	Kristina Whitworth	Susceptible Periods of Exposure to PM2.5 on Cognitive and Motor Function of Preschool-Aged Children
18	Maayan Yitshak Sade	Cardiometabolic Diseases in the World Trade Center General Responder Cohort and the Role of Subsequent Environmental Exposures
19	Changcheng Zhou	EDC-Induced Cardiovascular Disease