

**2013 Superfund Research Program Annual Meeting  
Baton Rouge, Louisiana  
October 15-17, 2013**

**General Poster Session, Thursday 10/17, 8-10 am, Kress Building**

**1. Immunoanalytical Method for the Sensitive and Specific Detection of BDE-47**

Candace Bever, Majkova Z, Wang Y, Dechant J, Gee S Hammock B  
University of California, Davis  
Chinese Academy of Agricultural Sciences

**2. Role of Sediment Iron Mineralogy in Regulating the Long-Term Remediation of Arsenic Contamination**

Benjamin C. Bostick, Sun J, Mailloux B, Chillrud S  
Columbia University

**3. The Concentration of Glutathione (GSH) in Human Erythrocytes is a Heritable Trait**

Garry R. Buettner, van 't Erve TJ, Wagner BA, Ryckman KK, Raife TJ  
University of Iowa

**4. Prenatal Exposure to Multiple Metals and Associations with Neurodevelopment**

Birgit Claus Henn, Bellinger D, Coull B, Mazumdar M, Christiani D, Wright R  
Harvard University

**5. Evaluating Bioavailability of Persistent Organic Compounds via a Trophic Transfer**

Viet Dang, Kroll K, Supowit S, Halden R, Denslow N  
University of Florida  
Arizona State University

**6. 6-OH-BDE-47 Affects Melanin Pigmentation and  $\text{THR}\beta$  mRNA Expression in the Retina of Zebrafish Embryos**

Wu Dong, Ferguson PL, Macaulay L, Kwok KWH, Hinton DE, Stapleton HM  
Duke University

**7. Bacterial Quorum Sensing Molecules Modulate PCB-Induced Disruption of Intestinal Epithelial Integrity**

Sung Yong Eum, Jaraki D, Andras I, Daunert S, Toborek M  
University of Miami

**8. Prenatal Arsenic Exposure and Blood Pressure in a US Pregnancy Cohort**

Shohreh F. Farzan, Chen Y, Murphy MA, Karagas MR  
Dartmouth University

**9. University of Washington Superfund Research Program Community Organization Capacity Needs Assessment**

Katie Frevert, Okitika T, Tsuchiya A, Burbacher T  
University of Washington

**10. Investigating Non-Coplanar PCB Tolerance in Atlantic Killfish (*Fundulus heteroclitus*) from New BEDF**

Erika Fritsch, Stegeman J, Goldstone J, Nacci D, Connon R, Pessah I  
University of California, Davis  
Woods Hole Oceanographic Institution  
Environmental Protection Agency

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**11. Superfund pollutants, health, and the food we eat: University of Kentucky's Superfund Research Program's Community Engagement Core finds more evidence of their connection**

Lisa Gaetke, Thurow A, Hofe C  
University of Kentucky

**12. Measuring Bioavailability of PCBs and DDTs in Sediments**

Jay Gan, Jia F, Lin K, Schlenk D  
RO1

**13. Ultrasensitive immunoassays for detecting small toxins with a nanoparticle-assembled photonic crystal**

Shirley J. Gee, Han JH, Sudheendra L, Hammock BD, Kennedy IM  
University of California Davis

**14. Discovery of Xenobiotics Associated with Preterm Birth**

Roger W. Giese, Shao G, MacNeil M, Wang P, Yao Y  
Northeastern University

**15. Science-initiated Research Translation: An Integral Part of the Columbia University SRP**

Meredith L. Golden, Chillrud S, Chai-Onn T, Braman S  
Columbia University

**16. UNC SRP Scientists Connect with Diverse Audiences Using Decision Support Tools, Interactive Exhibits and Epigenetics Training**

Kathleen Gray, Yelton S, Serre M, Haine D, Slaughter T  
University of North Carolina, Chapel Hill

**17. Investigator-Led Research Translation at Geophysics Workshop for Groundwater Professionals and Students in Dhaka, Bangladesh**

Elizabeth Guzy, Harvey C, Stahl M, Backus A, von Stackelberg K  
Harvard School of Public Health  
Massachusetts Institute of Technology

**18. Urinary Creatinine: The Grand Enigma - Implications of Its Use as a Urine Dilution Adjustment Factor in Epidemiologic Studies**

Megan N. Hall, Liu X, Harper K, Qu M, Graziano J, Gamble MV  
Columbia University

**19. Trichloroethylene Effects in Pregnant Wistar Rats**

Iman Hassan, Kumar A, Sun K, Bergin I, Loch-Carusor  
University of Michigan

**20. Particulate Matter Containing Environmentally Persistent Free Radicals Induce AhR-Dependent Cytokine and Reactive Oxygen Species Production in Human Bronchial Epithelial Cells**

Valeria Y. Hebert, Cormier SA, Reed R, Backes W, Dugas TR  
Louisiana State University

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**21. Dirty Garden Soil: Best Management Practices for Safe Soil Use in Backyard, Community and Commercial Gardens**

Wendy Heiger-Bernays, Barrett P, Kim B  
Boston University

**22. The Fate of Inhaled 14C-labelled PCB11 and its Metabolites in Vivo**

Xin Hu, Adamcakova-Dodd A, Thorne PS  
The University of Iowa

**23. Preparing Disaster Science Responders**

Joseph Hughes, Miller A, Remington J, Garantziotis S  
National Institute of Environmental Health Sciences Worker Education and Training Program

**24. Exposure to Crude Oil Burn-Off Particulates Induces Pulmonary Inflammation and Alters Adaptive Immunity**

Sridhar Jaligama, Chen Z, Gulle B, Cormier S  
University of Tennessee  
Louisiana State University  
United States Environmental Protection Agency, National Risk Management Research Laboratory

**25. Assessment of the Expression Levels of Genes Involved in Metal Detoxification in Killifish Inhabiting a Closed Copper Mine Superfund Site**

Dawoon Jung, Cravero A, Lehman R, Cutting E, Jackson B, Stanton B  
Dartmouth University

**26. A Prospective Cohort Study of the Association Between drinking Water Arsenic Exposure and Self-Reported Health Outcomes**

Molly L. Kile, Rodrigues E, Dobson C, Diao N, Mostofa G; Quamruzzaman Q  
Oregon State University  
Harvard University  
Dhaka Community Hospital

**27. Sustainable Reductive Dehalogenation of Persistent Organic Pollutants Using Light**

Marc R. Knecht, Zahran EM, Bedford NM, Nguyen MA, Naik RR, Bachas LG  
University of Miami

**28. Preparing Graduate Students in the Sciences to be Communicators**

Gretchen Kroeger, Thorsos E, Clark C  
Duke University

**29. Characterization of Estrogen Receptor Alpha in Xenobiotic Response**

Benson C. Lu, Li T, Evans RM  
Salk Institute for Biological Sciences and Howard Hughes Medical Institute

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**30. Proteomics Analysis of Biomarkers of Organophosphorus Exposures**

Judit Marsillach, Hsieh EJ, Richter RJ, MacCoss MJ, Hoofnagle AN, Furlong CE  
University of Washington

**31. Epigenetic Mechanisms Linking Environment to Developmental Outcomes**

Carmen Marsit, Maccani J, Koestler D, Lesseur C, Houseman EA, Lester B, Kelsey K  
Dartmouth University  
Brown University  
University of Kansas  
Oregon State University  
Women and Infants Hospital of Rhode Island

**32. Community Based Outreach: Promotora Designed Transferable Training Modules on Environmental Risk Assessment**

Denise Moreno, Morales ML, Morales F, Vasquez S, Heriquez P, Wells N  
University of Arizona  
Sonora Environmental Research Institute, Inc.

**33. Bioanalytical Research Technologies to Study Nutritional Modulation of Environmental Insults**

Andrew J, Morris, Sunkara M, Petriello M, Hennig B  
University of Kentucky

**34. Arsenic species differentially alter Pseudomonas induced immune response in bronchial epithelial cells**

Emily Notch, Barnaby R, Coutermarsh B, Tayler V, Jackson B, Stanton B  
Dartmouth University

**35. Arsenic species differentially impact Pseudomonas induced cytokine release in human macrophages.**

Emily Notch, Barnaby R, Coutermarsh B, Nymon A, Ashares A, Taylor V, Jackson B, Stanton B  
Dartmouth University

**36. Polychlorinated Biphenyls: From Single RyR1 Channels to Muscle Dysfunction**

Isaac N. Pessah, Niknam Y, Lehmler HJ  
University of California, Davis

**37. Partnerships for Environmental Public Health (PEPH) Evaluation Tools**

Kristi Pettibone, Drew C  
National Institute of Environmental Health Sciences

**38. The Influence of Electrodes Sequence on Electrochemical Degradation of Trichloroethylene**

Ljiljana Rajic, Fallahpour N, Ciblak A, Alshawabkeh A  
Northeastern University

**39. Environmentally Persistent Free Radicals Inhibit Cytochrome P450 Enzymes**

James R. Reed; Cawley GF, Ardoin TG, Backes WL

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**40. Thermodynamic Study of Anthracene + Phenanthrene Solid Mixtures**

James Rice, Sandstrom E, Fu J, Suuberg E  
Brown University

**41. Exposure to Metals and Reproductive Hormone Levels in Pregnant Women Living in Northern Puerto Rico**

Luis O Rivera-González, Cantonwine DE, Ferguson KK, Jiménez-Vélez B, Crespo-Hernández N,  
Anzalota Del Toro LV, Alshawabkeh AN, Cordero JF, Meeker JD  
University of Michigan  
University of Puerto Rico  
Northeastern University

**42. Evolution of a Robust Tribal-University Research Partnership to Investigate Tribal Exposures and Build Scientific Capacity**

Diana Rohlman, Harper B, Harding A, Harris S, Kile M, Anderson K, Simonich S  
Oregon State University  
Confederated Tribes of the Umatilla Indian Reservation

**43. Research Translation: From the Bench to Benchmarks and Beyond**

Madeleine Scammell, Ames J, Miller A, Basra K, Heiger-Bernays W, Ozonoff D  
Boston University

**44. Combined Effects of Dietarily Derived Exposures of Legacy Compounds (DDTs) from Palos Verdes Sediment and Aqueous Exposures of Emerging Contaminants (Bifenthrin) on Steroidogenesis in Male Hornyhead Turbot**

Daniel Schlenk, Crago J, Jia F, Gan J  
University of California, Riverside

**45. Fluorescent Quenching Method for the Detection of Hexa-Valent Chromium**

Michael D. Scott, Hoang Nguyen K, Trogler WC

**46. Non-homologous End Joining Plays a Predominant Role in Oxidative Stress Induced Mutagenesis**

Vyom Sharma, Collins L, Sun W, Swenberg JA, Nakamura J  
University of North Carolina, Chapel Hill

**47. Using a Novel Toxicogenetic Screen in Human Haploid Cells to Identify Genes that Modify Susceptibility to Chemical Exposure**

Hue Shen, Smith MT, Zhang L  
University of California, Berkeley

**48. PCB Distributions in Marine Coastal Systems and Their Impact on Environmental Microbiomes**

Helena Solo-Gabriele, Klaus J, Kourafalou V  
University of Miami

**49. Building an Academic-Community Partnership with a Tribal Government**

Authors: Marcella R. Thompson, Spears D, Hoover E, Vanderslice RR  
Brown University

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**50. REV1 is Dispensable in O6-Methylguanine-Initiated Mutations, but Essential for Base Excision Repair Intermediate-Mediated Mutagenesis**

Authors: Xu Tian, Swenberg JA, Nakamura J  
University of North Carolina, Chapel Hill

**51. TLR4 Signaling is Involved in Brain Vascular Toxicity of PCB153 Bound to Nanoparticles**

Authors: Michal Toborek, Zhang B, Choi JJ, Eum SY, Daunert S  
University of Miami

**52. Exercise Attenuates Changes in the Gut Microbiome Induced by Polychlorinated Biphenyls**

Authors: Michal Toborek, Choi JJ, Eum SY, Rampersaud E, Daunert S, Abreu MT  
University of Miami

**53. A Real-Time Antibody-Based Field Assay to Predict PAH bioaccumulation in Oysters Exposed to Contaminated Sediments**

Authors: Michael Unger, Kaattari S, Vogelbein W, Rieger J  
Virginia Institute of Marine Science  
The Elizabeth River Project

**54. Metal Mixtures Exposure and Child Neurodevelopment-Evidence from Rural Bangladesh**

Authors: Linda Valeri, Claus Henn B, Quamruzzaman Q, Bellinger D, Christiani D, Mazumdar M  
Harvard University

**55. A Floating Collaboration: Bringing Superfund Research onto a Learning Barge**

Authors: Savannah Volkoff, Kroeger G, Clark C  
Duke University

**56. The University of Arizona Superfund Research Program: Research Translation in Action at the Iron King Mine and Humboldt Smelter Superfund Site**

Authors: Sarah T. Wilkinson, Loh M, Lothrop N, Brusseau ML, Maier RM  
University of Arizona

**57. Variations of the Spatiotemporal Patterns of CVOCs Concentrations in Northern Karst of Puerto Rico**

Authors: Xue Yu, Ghasemizadeh R, Padilla I, Irizarry C, Yegen C; Alshawabkeh A  
Northeastern University

**58. The Incomplete Wood-Ljungdahl Pathway of Dehalococcoides Mccartyi Impacts the Long-Term Growth**

Authors: Wei-Qin Zhuang, Yi S, Bill M, Tang Y, Conrad ME, Alvarez-Cohen L  
University of California, Berkeley  
Washington University in St. Louis  
Lawrence Berkeley National Laboratory