NIEHS
National Institute of Environmental Health Sciences

ATSDR
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

PRESENTER BIOS

William Suk

NIEHS Superfund Research Program Director

William Suk, Ph.D., M.P.H., has served as director of the Superfund Hazardous Substances Basic Research and Training Program (Superfund Research Program) since its inception. He is also director of the Center for Risk & Integrated Sciences (CRIS) at NIEHS.

His affiliation with a number of organizations and committees include: Roundtable on Environmental Health Sciences, Research, and Medicine, Institute of Medicine, National Academy of Sciences; International Advisory Board of the Chulabhorn Research Institute, Bangkok, Thailand; and World Health Organization Consultation on Scientific Principles and Methodologies for Assessing Health Risks in Children Associated with Chemical Exposures. He sits on a member of a number of trans-NIH committees.

Suk received his Ph.D. in microbiology from the George Washington University; his Masters in Public Health in health policy from the School of Public Health, University of North Carolina at Chapel Hill.

He sits on the editorial boards of a number of international journals, including Environmental Health, Toxicology and Environmental Chemistry, International Journal of Occupational Medicine and Environmental Health, and the Central European Journal of Public Health. Suk has been a National Science Foundation fellow. The NIH has honored him for his many efforts, and he has received the HHS Secretary's Award for Distinguished Service. He is a recipient of the Roy E. Albert Memorial Award for Translational Research in Environmental Health from the University of Cincinnati; the Child Health Advocacy Award from the Children's Environmental Health Network; the John P. Wyatt Lecture Award in Environmental Health and Disease from the University of Kentucky; and the Adel F. Sarofim Award for Outstanding Professional Achievement in Championing Research on the Origin, Fate and Health Effects of Combustion Emissions. He is a Fellow of the Collegium Ramazzini.

Dr. Chris Portier

NCEH/ATSDR Center Director

Christopher J. Portier, PhD, joined CDC in 2010 as the Director of the National Center for Environmental Health and Agency for Toxic Substances and Disease Registry. Dr. Portier came to CDC from the National Institute of Environmental Health Sciences (NIEHS), where he was the Senior Advisor to the Director and a Principal Investigator in environmental systems biology. Formerly, Dr. Portier was Associate Director of NIEHS, Director of the Environmental Toxicology Program at the NIEHS, and Associate Director of the National Toxicology Program.

Dr. Portier is an internationally recognized expert in the design, analysis, and interpretation of environmental health data. His research efforts and interests include such diverse topics as cancer biology, risk assessment, climate change, bioinformatics, immunology, neurodevelopment, genetically modified foods, and genomics. From 2000 to 2006, he managed the NTP and developed a strategic initiative that is internationally recognized for its innovation. He has contributed to the development of cancer risk assessment guidelines for national and international agencies and has either directed or contributed significantly to numerous risk assessments. He led the U.S. evaluation of electromagnetic fields by national and international scientists, which was the first comprehensive review in this field. Dr. Portier directed efforts of the U.S. government to develop a collaborative research agenda with Vietnam on the health effects of Agent Orange in that country. He has just directed a multiagency review of research needs for the health effects of climate change for the entire U.S. government. He has served as an advisor to the Finnish Academy of Sciences on the Centers of Excellence Research Program, as a member of World Health Organization/International Agency for Research on Cancer scientific committees, and as a reviewer for grants for the United States, the European Union, and many other grant-sponsoring organizations.

Dr. Portier received his BSc degree (1977) in mathematics (summa cum laude) and his MS (1979) and PhD (1981) degrees in biostatistics. He has authored more than 150 peer-reviewed publications, 30 book chapters, and 40 technical reports. In the past 5 years, he has given more than 70 invited lectures, many of them at international meetings.

He has received numerous awards including the prestigious Spiegelman Award from the American Public Health Association and the Outstanding Practitioner of the Year Award from the International Society for Risk Analysis. He is a Fellow of the International Statistics Institute, the World Innovation Foundation, and the American Statistical Association.

Dr. Linda Birnbaum

NIEHS Director

Linda S. Birnbaum, Ph.D. is Director of the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health (NIH), and the National Toxicology Program. As NIEHS and NTP director, Birnbaum oversees a budget of $850 million that funds biomedical research to discover how the environment influences human health and disease. A board certified toxicologist, Birnbaum has served as a federal scientist for nearly 31 years. Prior to her appointment as NIEHS and NTP director, she spent 19 years at the Environmental Protection Agency where she directed the largest division focusing on environmental health research. Birnbaum started her federal career with 10 years at the NIEHS—first as a senior staff fellow at the National Toxicology Program, then as a principal investigator and research microbiologist, and finally as a group leader for the Institute's Chemical Disposition Group.

LEGACY CONTAMINANTS: PART 1

Maria Argos

"Arsenic Exposure and Mortality in Bangladesh: Findings from the Health Effects of Arsenic Longitudinal Study"

Columbia University

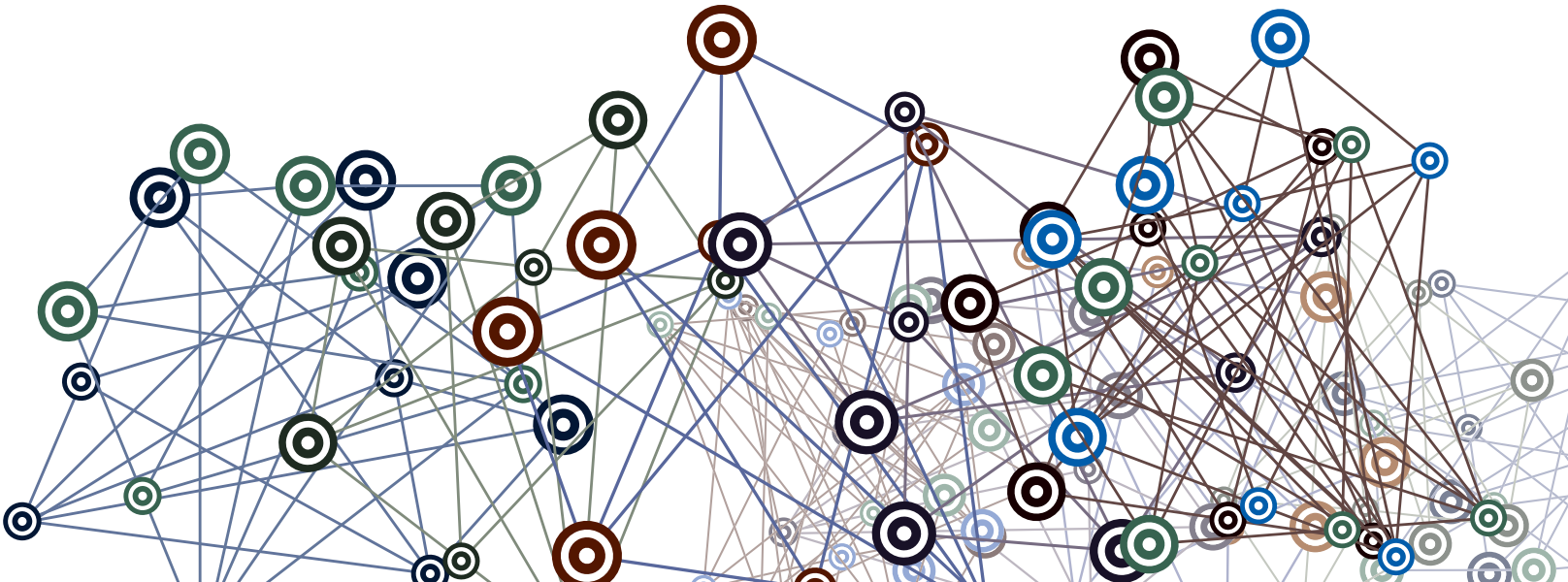
Maria Argos is a Research Associate Assistant Professor at the University of Chicago in the Department of Health Studies. She received her PhD in Epidemiology from Columbia University's Mailman School of Public Health in 2011. Her research has primarily been based on the Health Effects of Arsenic Longitudinal Study cohort, established as part of Columbia University's Superfund Research Program, in Bangladesh evaluating associations of arsenic in drinking water with various health outcomes. She is also involved in a chemoprevention trial of selenium and vitamin E among arsenic-exposed individuals in Bangladesh for the prevention of non-melanoma skin cancers.

Susan Crowell

"Cross-Species and Life Stage Physiologically Based Pharmacokinetic Modeling of Benzo[a]pyrene and Dibenzo[def,p]chrysene"

Oregon State University

Susan Crowell is a post-doctoral research associate at Pacific Northwest National Laboratory, working on Oregon State University's Superfund Research Program, "PAHs: New Technologies and Emerging Health Risks." She earned her Ph.D. in Toxicology from the University of Georgia in 2009, for research on biological modeling of conazole pesticide exposure in rodents. Crowell's current research is focused on development of physiologically based pharmacokinetic models for carcinogenic PAHs. She has a keen interest in the intersection of fundamental scientific research, risk communication, and how both influence public policy and perceptions, and hope to continue developing PBPK models as tools to better understand and communicate human health risks from environmental exposures.



LEGACY CONTAMINANTS: PART 2

Josh Hamilton

"Mouse Models of Human in Utero Exposure to Low-Dose Arsenic in Drinking Water: Significant Effects on Lipid Metabolism, Lung Development, and Fetal Growth and Development"

Dartmouth College

Dr. Hamilton is the Chief Academic & Scientific Officer at the Marine Biological Laboratory (MBL) in Woods Hole MA, where he is also a Senior Scientist. He also holds a joint faculty appointment at Brown University. Dr. Hamilton received a B.S. in biology from Bridgewater State College, and an M.S. in genetics and Ph.D. in toxicology both from Cornell University. Following a postdoctoral fellowship through the Norris Cotton Cancer Center, he joined the faculty of the Dartmouth Medical School, where he was a Professor of Pharmacology and Toxicology with adjunct appointments in Chemistry and in Biology. At Dartmouth he was also the founding Director of the Center for Environmental Health Sciences, and was Director of Dartmouth's NIEHS-sponsored Superfund Research Program (SRP) Project on toxic metals from 1997 to 2008. He also served as Associate Director of the Norris Cotton Cancer Center. Dr. Hamilton joined the MBL in 2008 but has remained as a project leader in the Dartmouth SRP Toxic Metals program project.

Rebecca Fry

"Unraveling Cadmium-Specific Epigenetic Changes Associated with In Utero Exposures"

University of North Carolina- Chapel Hill

Dr. Fry is an Assistant Professor in the Department of Environmental Sciences and Engineering at the Gillings School of Global Public Health at UNC-Chapel Hill. She also holds appointments in the Curriculum in Toxicology and the Center for Cancer Research at UNC. She has received numerous awards including a Pfizer Scholar in Public Health Award, a PopTech Science Fellow, and an Outstanding New Environmental Scientist Award from the NIEHS. She leads one of three of the biomedical research projects within the UNC Superfund research program where she is investigating the effects of prenatal cadmium exposure in populations in North Carolina. Building off her expertise is in the areas of DNA repair, toxicogenomics and systems biology, her research at UNC focuses on mechanisms of disease associated with toxic metal exposure. A primary goal of Dr. Fry's research is to increase awareness of the deleterious impacts of exposures during the prenatal period to improve public health initiatives.

EMERGING CONTAMINANTS: PART 1

Stephania Cormier

"Radical-Containing PM0.2 Initiates Epithelial-to-Mesenchymal Transitions in Infant Airway Epithelial Cells"

Louisiana State University

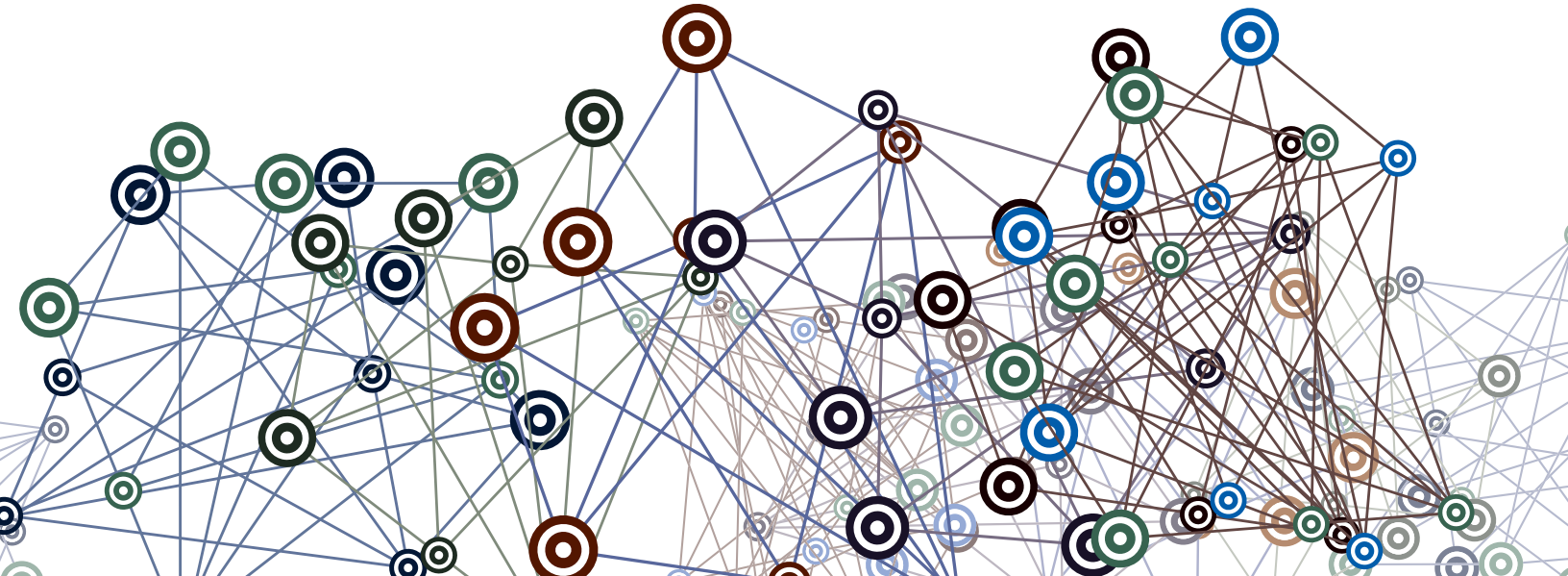
Dr. Stephania Cormier is an Associate Professor in the Department of Pharmacology & Experimental Therapeutics at Louisiana State University Health Sciences Center in New Orleans (LSUHSC-NO). Dr. Cormier is actively involved in teaching activities, committee participation and mentoring at LSUHSC-NO. She is interested in how adult airways disease such as asthma results, in part, from environmental insult(s) that occurs during a critical window of pulmonary and immunological immaturity. These insults can be airborne pollutants or respiratory viruses. The long-term objective of her laboratory is to realize the initiators of the immune and pathophysiological changes that occur during early stages of pulmonary airways disease so that more effective interventions and therapy might be developed. Along with her numerous publications and presentations, Dr. Cormier currently serves as an Academic Editor for PLOS ONE, a journal referee for a number of journals, and a proposal referee for USDA, Lytmos Corporation, NCI, NHLBI, and NIAID.

Rita Loch-Caruso

"The Potential Role, Mechanisms and Relevance of Pollutant-Induced Oxidative Stress in Preterm Birth"

University of Michigan (Northeastern University SRP)

Rita Loch-Caruso, PhD, is a toxicologist with a research focus on female reproductive toxicology and, in particular, mechanisms related to adverse pregnancy outcomes such as premature birth. She has her primary faculty appointment as Professor in the Department of Environmental Health Sciences at the University of Michigan, where she is the Director of the NIEHS-sponsored training grant for the Environmental Toxicology and Epidemiology Program, and Director of the NIEHS-sponsored Center for Lifestage Exposures and Adult Disease. In addition, she has a faculty appointment in the Program in the Environment in the College of Literature, Science, and the Arts. Dr. Loch-Caruso has served on numerous local, state and national committees including the City of Ann Arbor Environmental Commission, NIH grant review panels, and the Institute of Medicine Committee on Understanding Premature Birth and Assuring Healthy Outcomes.



EMERGING CONTAMINANTS: PART 2

Heather Stapleton

"Children's Exposure to Flame Retardant Chemicals (Old and New) in Indoor Environments"

Duke University

Dr. Stapleton received her PhD in environmental chemistry from the University of Maryland at College Park in 2003 and since 2005 she has been on the faculty of the Nicholas School of the Environment at Duke University. Dr. Stapleton's research program examines the sources, fate, transport and metabolism of halogenated organic contaminants in the environment. Her current research projects focus on human exposure to flame retardant chemicals, particularly in children, and identification of flame retardant chemicals in consumer products. She also has active research programs that examine species-specific differences in the metabolism of flame retardant chemicals and impacts of halogenated contaminants on thyroid hormone regulation. Analytical methods employed in Dr. Stapleton's laboratory include gas chromatography, liquid chromatography and mass spectrometry.

Rui Zhang

"Triclosan Impairs Excitation-Contraction Coupling and Ca2+ Homeostasis in Cardiac and Skeletal Muscle"

University of California- Davis

Rui Zhang received his B.S. in Bioengineering from the University of California, Berkeley in 2004. After graduation, he joined the Safety Pharmacology group at Roche's Palo Alto research site. During his five years with Roche, he worked on identifying cardiovascular liabilities in compounds by assessing for hERG (Kv11.1) and Nav1.5 inhibition, hemodynamic impairment, and arrhythmogenic potential. In 2010, he began pursuing a Ph.D. degree in Pharmacology and Toxicology at the University of California, Davis. He currently works in Dr. Isaac N. Pessah's lab, where he is studying Ca2+ signaling in muscular excitation-contraction coupling. He is currently supported by the T32 Training Programing in Basic and Translational Cardiovascular Science, and recently completed the Howard Hughes Medical Institute's Integrating Medicine into Basic Science training program at UC Davis.

ENVIRONMENTAL FATE & TRANSPORT: PART 1

JS Crosby

"Development of Elemental Mercury Sensor Based on Gold Nanoparticles"

University of California- Berkeley

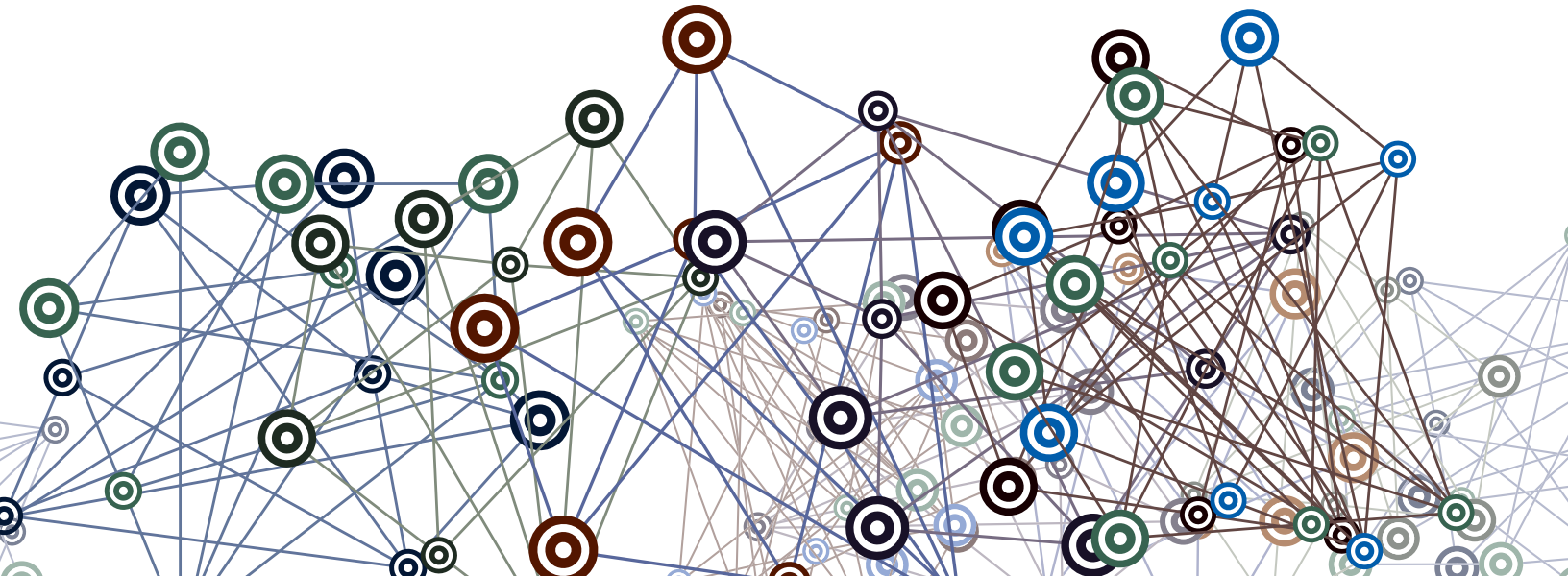
Jeffrey Crosby is a Ph.D. candidate in the department of mechanical engineering at the University of California Berkeley. His research, under the direction of Drs. Catherine Koshland and Donald Lucas, concerns the development and testing of novel environmental sensors utilizing nanoparticles; in particular, elemental mercury sensors. Prior to studying at Berkeley, he served as a high school math and science teacher in West Africa as a Peace Corps Volunteer. He received his Bachelors of Science in Aerospace Engineering from the University of Florida in Gainesville in 2006.

Damian Shea

"Monitoring Current-Use Pesticide Exposure Using Passive Sampling Devices"

North Carolina State University

Dr. Damian Shea is Professor of Biology and Environmental Toxicology at North Carolina State University. He received his PhD in Environmental Chemistry from the University of Maryland in 1985 and was awarded NRC and AAAS Post-Doctoral Fellowships. After working as an environmental consultant, he joined the faculty at NCSU in 1993. Over the past 10 years, he has served as Head of both the Departments of Biology and Toxicology. He has a broad background in environmental/analytical chemistry and toxicology with primary research interests in the detection, sources, behavior, and effects of chemicals in the aquatic environment. His ultimate goal is to improve our ability to assess chemical exposure and thereby improve human and ecological risk assessments. His SRP-funded research is to advance development of passive sampling devices to measure hundreds of chemicals and their metabolites in water and better understand the mechanisms controlling bioavailability of chemicals in water/sediment/soil systems.



ENVIRONMENTAL FATE & TRANSPORT: PART 2

Ingrid Padilla

"Impacts of CVOCs and Phthalates Contamination in the Karst Groundwater System of Northern Puerto Rico"

University of Puerto Rico at Mayaguez (Northeastern University SRP)

Dr. Ingrid Padilla is currently a full professor in Environmental and Water Resources Engineering in the Department of Civil Engineering and Surveying and the Director of the Environmental Engineering laboratory (EEL) at the University of Puerto Rico, Mayagüez. She has been at the University of Puerto Rico since 2001. She led the groundwater office at Greg Morris and Associates from 1999 through 2001, and directed several hydrologic investigations while working with the U.S. Geological Survey from 1988 through 1992. Dr. Padilla holds a Ph.D. from the University of Arizona in Contaminant Hydrology; a M.S. from the University of Michigan; and a B.S. from the University of Maryland. She has directed laboratory, field-scale, and modeling environmental engineering and ground-water investigations in the academic, government, and private sectors. Her current work focuses on: development of detection technologies for underground contamination; development of potential relationships between contamination and adverse reproductive outcomes; fate, transport, and potential exposure of contaminants in karst systems; enhanced remedial technologies in low-permeability systems; and the integration of multidisciplinary efforts in science and engineering education and training. Dr. Padilla has served in several review panels for the National Science Foundation and the National Research Council. She has received numerous awards through her career, including: Distinguished Professor in Civil Engineering; Innovative Woman in Engineering Education; and Ford Foundation Fellowship. She has presented her work in many local, regional, and national conferences, and published in distinguished journals and proceedings.

James Ranville

"Remediation Effectiveness for Mining Sites: Hysteresis and Metal Mixture Effects"

Colorado School of Mines

Dr. James Ranville is an Associate Professor in the Department of Chemistry and Geochemistry at Colorado School of Mines. Dr. Ranville received his B.S. in chemistry from Lake Superior State University and M.S. and PhD. Degrees in geochemistry from Colorado School of Mines. His research interests focus primarily on the geochemistry and aquatic toxicology of trace metal contaminants. He is particularly interested in metal speciation analysis, including nanoparticle characterization. His current NIEHS-funded project looks to develop bioavailability-based sensors for examining mine site restoration. He is the author/co-author of over 50 peer-reviewed papers and book chapters.

James Rice

"Aqueous Solubility of Binary and Multicomponent, Tarlike PAH Mixtures"

Brown University

James Rice is a post-doctoral research associate and the Engineering State Agencies Liaison in the Superfund Research Program (SRP) at Brown University's School of Engineering. James received a BS (2006) from Northeastern University and an ScM (2008) and PhD (2011) from Brown University, all in chemical engineering. James is interested in the fate and transport, chemistry, and thermodynamics of environmental contaminants, and on translation of scientific research to relevant stakeholders, such as regulators, policy makers, and community members. He advises and teaches students both in the laboratory and the classroom. He was recently recognized as an Outstanding Member of the Brown University Community and received a 2011 Sigma Xi Outstanding Graduate Student Award.

COMMUNITY ENGAGEMENT: PART 1

Norman Forsberg

"Engagement of Native American Tribes in the Determination of Legacy and Emerging PAH Dietary Exposure Scenarios, Assessment of Possible Risks to Human Health"

Oregon State University

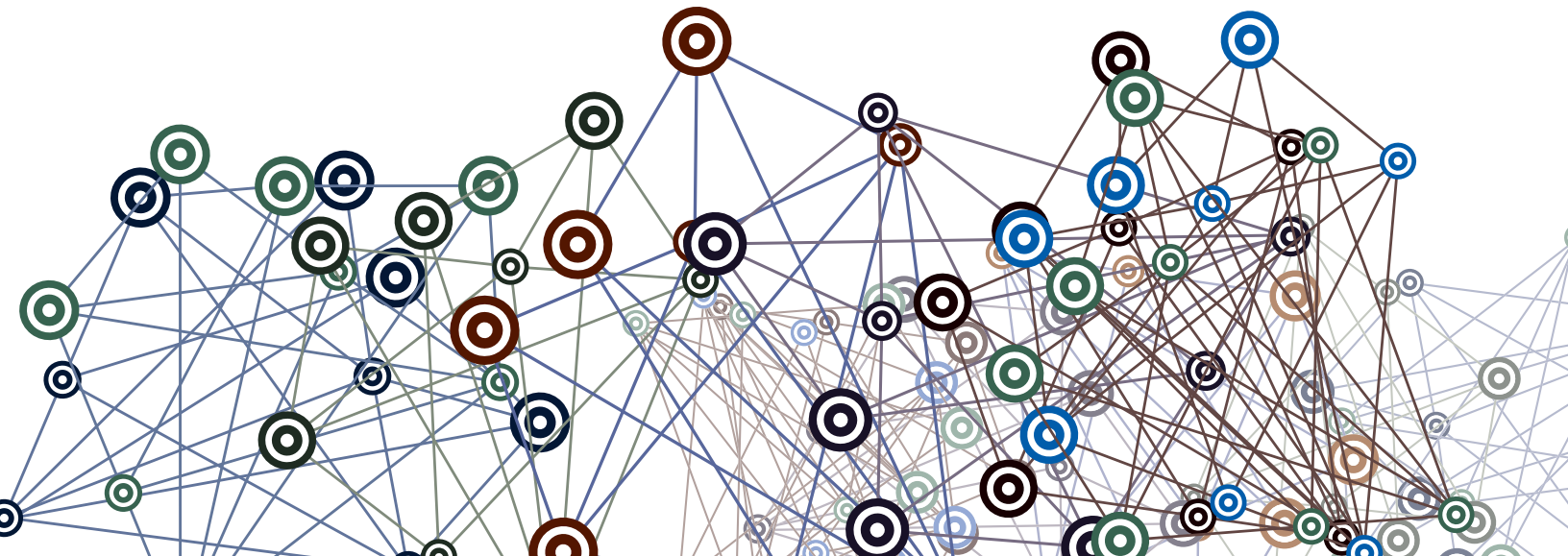
Norm Forsberg graduated from UC Santa Cruz with a B.S. in Environmental Chemistry in 2007 and is currently a PhD candidate in Oregon State University's (OSU) Environmental and Molecular Toxicology Department under Professor Kim A. Anderson. While at OSU he developed, validated, and published novel bio-analytical methods for pesticide degradation products, PCBs, and PAHs and demonstrated their performance and utility in pharmacokinetic studies, human exposure assessments, and human health risk assessments. His honors include NIEHS, California Alliance for Minority Participation Program, and OSU fellowships along with several awards for his research. His current research is focused on assessing the extent to which passive sampling devices serve as biological surrogates for aquatic organisms. Additionally, he will be traveling to West Africa to help strengthen the region's technological capacity for environmental pesticide monitoring via the use of passive sampling devices. When not doing research, Norm finds inspiration re-creating in the great outdoors.

Thomas Burbacher

"United We Stand: Developing Regional Community Coalitions to Address Hazardous Waste Site Cleanup"

University of Washington

Dr. Thomas Burbacher is Professor of Environmental and Occupational Health Sciences at the University of Washington (UW) where he teaches classes in basic Environmental and Occupational Health and Children's Environmental Health. He is the Director of the Research Translation and Outreach Core for the UW Superfund Research Program and the Deputy Director of the UW Pacific Northwest Center for the National Children's Study. Dr. Burbacher is also the Head of the Division of Reproductive and Developmental Sciences and Director of the Infant Primate Research Center at the UW National Primate Research Center and the Center on Human Development and Disability (CHDD). Dr. Burbacher's research investigates changes in brain development and function caused by prenatal exposure to neuroactive substances. In addition to his research translation activities for the UW Superfund program, Dr. Burbacher has been a member of numerous State, Federal and International Review Panels helping translate the latest research into public health policy. He was most recently a member of the Environmental Protection Agency's Review Panels on Mercury and Methanol and is currently a member of the Food and Drug Administration's Medical Devices Advisory Board.



COMMUNITY ENGAGEMENT: PART 2

Anna Hoover

"Sensemaking in the Shadow of a Superfund Site: Defining ATSDR Roles and Goals in an Agency-Saturated Community"

University of Kentucky

Anna Goodman Hoover is communication liaison for the University of Kentucky Superfund Research Program Research Translation Core, where she works with stakeholders to improve understanding of environmental health issues and to support the migration of research outcomes into practice at community, provider, and policy levels. As research project coordinator for the Kentucky Research Consortium for Energy and the Environment's Paducah Gaseous Diffusion Plant Stakeholder Future State Vision study from 2008-2011, she worked with affected communities to produce a future use report for this NPL Superfund site. As current deputy director of the National Coordinating Center for the Public Health Practice-Based Research Networks, she supports research studies that evaluate and compare public health strategies implemented across diverse settings. Hoover is a research faculty member in the UK College of Public Health, with a research portfolio focused on stakeholder-centered communication and engagement processes to improve community health outcomes.

Sarah Wilkinson

"University of Arizona Superfund Research Program: Engaging Arizona Communities near Contamination"

University of Arizona

Dr. Sarah T. Wilkinson joined the University of Arizona Superfund Research Program as Research Translation Core Coordinator in 2011. She is primarily focused on developing research translation and community outreach products for diverse stakeholders in Arizona. She received a PhD in Cancer Biology, with a minor in Pharmacology/Toxicology from the University of Arizona. Her graduate work and subsequent post-doctoral studies focused on lymphoma research. In her current position, Sarah enjoys building upon her biomedical research background as she learns more about environmental health and science communication, and hopes that her work will have a positive impact on the lives of Arizonans.