

***Phytoremediation  
2008***

**Phytoremediation: The Potential is Growing - October 14, 2008**

David Tsao, BP Corporation North America, Inc.: "Overview of Phytotechnologies"  
Jerald Schnoor, University of Iowa: "Phytodegradation of Airborne PCB Congeners"

**Phytoremediation of Organics: - November 1, 2008**

Ari Ferro, Principal Environmental Scientist, URS Corporation (Title not available)  
Stuart Stand & Sharon Doty, University of Washington (Title not available)

**Phytoremediation of Metals - November 25, 2008**

Michael Blaylock, Edenspace (Title not available)  
Raina Maier, University of Arizona (Title not available)

***Bioavailability: Metals, Organics, and Use at Hazardous Waste Sites  
2008***

**Bioavailability of Metals - May 28, 2008**

Dominic Di Toro, University of Delaware: "Environmental control of Metal Bioavailability"  
Nicholas Basta, Ohio State University: "Assessing Oral Contaminant Human (Bio)availability in Soil with *In Vitro* Gastrointestinal Methods" Uncertainties, Data Gaps, and Research Needs"

**Bioavailability of Organic Compounds: Methods and Case Studies -  
June 11, 2008**

Edward Neuhauser, National Grid: "Determining True PAH Bioavailability in Sediments Using Solid-Phase Microextraction (SPME)"  
Danny Reible, University of Texas at Austin: "Defining the Availability and Mobility of Contaminants in Sediments"

**Use of Bioavailability Information at Hazardous Waste Sites - June 18, 2008**

Mike Beringer, US EPA, Region 7: "Guidance for Evaluating the Oral Bioavailability of Metals"  
Mark Maddaloni, US EPA, Region 2: "Point-Counterpoint – The FMC Site"

## ***Nanotechnology: Applications and Implications for Superfund 2007-2008***

### **Introduction to Nanotechnology - January 18, 2007**

Nora Savage, US EPA: "Nanotechnology- Introduction to Nanotechnology"  
Nigel Walker, NIEHS: "Nanotechnology and Toxicology: An Overview"

### **Nanotechnology: Metal Remediation - February 13, 2007**

Mason Tomson, Rice University: "Nanotechnology- Metal Remediation"  
Shas Mattigod, Pacific Northwest National Laboratory: "Functionalized Nanoporous Ceramic Sorbents for Removal of Mercury & other Contaminants"

### **Nanotechnology: DNAPL Remediation - March 15, 2007**

Matthew Hull, Virginia Tech: "Magnetite Particles for Remediation of Contaminated Groundwater"  
Greg Lowry, Carnegie Mellon University: "Functionalized Reactive Nanoscale Fe<sup>0</sup> (NZVI) for *in situ* DNAPL Remediation: Opportunities and Challenges"

### **Nanotechnology: Superfund Site Remediation - April 19, 2007**

Marti Otto, US EPA: "Nanoscale Zero-Valent Iron: Field Scale and Full Scale Studies"  
Mary Logan, US EPA: "Nease Chemical Site Nanotechnology Update"

### **Nanotechnology: Environmental Sensors - May 31, 2007**

Paul Gilman, Oak Ridge Center for Advanced Studies: "Nanotechnology Applications for Environmental Health – Big Plans for Little Particles"  
Ian M. Kennedy, University of California, Davis: "Nanoscale Materials for Sensors"

### **Fate and Transport of Nanoparticles - August 16, 2007**

Richard Zepp, US EPA: "Factors Influencing the Fate and Transport of Selected Nanomaterials in Water and Land"  
Paul Westerhoff, Arizona State University: "Nanoparticle Interactions during Wastewater and Water Treatment"

### **Nanoparticles: Human Toxicology and Risk Assessment - September 12, 2007**

Kevin Dreher, US EPA: "Pulmonary Effects of Nanoparticles: Insight into Challenges Associated with Nanotechnology Health Risk Assessment"  
Nanoparticles: Human Toxicology and Risk Assessment  
Agnes Kane and Robert Hurt, Brown University: "Nanoparticles: Health Effects"

### **Nanoparticles and Ecotoxicology - October 18, 2007**

Stephen Klaine, Clemson University: "Nanomaterials in the Environment – Carbon in Aquatic Ecosystems"  
Nanoparticles: Ecotoxicology  
Patrick Larkin, Santa Fe Community College: "Screening of a Nanoparticle Using *in vivo* and Microarray Studies"

## **Looking Ahead: Nanotechnology and Superfund - November 8, 2007**

David Rejeski, Woodrow Wilson Center: "Where does the Nano Go? End-of-Life Strategies for Nanotechnologies"

Randall Wentzel, US EPA: "Overview of ORD Draft Nanotechnology Research Strategy (NRS)"

## ***Dense Non-Aqueous Phase Liquids*** **2005-2006**

### **DNAPLs: Source Zone Behavior and Mass Flux Measurement - August 10, 2005**

Mark Brusseau, University of Arizona: "DNAPL Source Zones"

Lynn Wood, US EPA: "Measurement and Use of Containment Assessment Tool for DNAPL Remedial Performance"

Michael Brooks, US EPA: "Assessing DNAPL Source Remediation Performance"

### **DNAPLs: Above-Ground Chemical/Physical Remediation - September 7, 2005**

Chang Yul Cha, Cha Corporation: "Microwave Technology for Superfund Site Remediation"

Eric Betterton, University of Arizona: "Innovative Technologies for Destruction of Chlorinated Solvents"

### **DNAPLs: Enhanced Remediation of DNAPL-Contaminated Subsurface Systems - October 6, 2005**

Cass Miller, University of North Carolina, Chapel Hill: "Enhanced Remediation of DNAPL Contaminated Subsurface Systems"

### **DNAPLs: Biological Remediation Processes - January 25, 2006**

Jim Field, University of Arizona: "Biodegradation of Chlorinated Solvents:"

Lee Newman, University of South Carolina: "What is Phytoremediation?"

## ***Biosensors for Environmental Monitoring*** **2004**

### **Session One - March 16, 2004**

Shirley Gee, University of California, Davis: "Biomarkers of Exposure to Hazardous Substances"

Michael Denison, University of California, Davis: "Role of Immunochemistry in Trace Analysis"

Ian Kennedy, University of California, Davis: "Nanotechnology and Biosensors"

### **Session Two - May 18, 2004**

Patrick Larkin, EcoArray, Inc.: "Gene Chip Applications in Environmental Toxicology"

Elwood Linney, Duke University: "Biosensing with Zebrafish"

## **Metals**

### **2003**

#### **Metals: Bioavailability - April 9, 2003**

Joseph Graziano, Columbia University: "Assessing the Oral Bioavailability of Lead in Soil in Humans"

Jim Shine, Harvard University: "Determination of Metal Speciation in Aquatic Ecosystems Using Equilibrium Gel Samplers"

#### **Metals: Remediation - May 14, 2003**

Raina Maier, University of Arizona: "Biosurfactants: Applications for Metal Remediation"

Harry Compton, US EPA: "Green Engineering"

#### **Introduction: Beth Anderson, NIEHS**

Paul Bishop, University of Cincinnati: "Metals- Analytical Techniques"

Tammy Jones-Lepp, US EPA: "Unique Environmental Chemistry Solutions to Superfund Problems"

## **Polychlorinated Biphenyls**

### **2002**

#### **Polychlorinated Biphenyls (PCBs): Remediation - October 9, 2002**

James Tiedje, Michigan State University: "Principles and Prospects for Bioremediation of PCBs in Soils and Sediments"

Richard Bopp, Rensselaer Polytechnic University: "Hudson River PCBs: Lessons from Dated Sediment Cores"

#### **PCBs: Monitoring and Detection - November 13, 2002**

Andy Beliveau, US EPA: "Advances in PCB Analysis"

Sylvia Daunert, University of Kentucky: "Sensing Superfund Chemicals with Recombinant Systems"

#### **PCBs: Health Effects - December 4, 2002**

Susan Korrick, Harvard University: "Developmental Effects of Prenatal Exposure to PCBs"

Rita Loch-Carusio, University of Michigan: "Uterine Muscle as a Target of Polychlorinated Biphenyls"