



National Institute of Environmental Health Sciences

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# Research to Risk Assessment Interagency Work Group

**November 13, 2013**

## R2RA WG Participants

### ATSDR

- Olivia Harris
- Steve Jones
- (Ann Sowell)
- John Wheeler
- Lynn Wilder

### NIEHS

- Beth Anderson
- Danielle Carlin
- Michelle Heacock
- Heather Henry

### EPA

- Xabier Arzuaga
- Michele Burgess
- Vince Cogliano
- Melissa Dreyfus
- Helen Duteau
- David Herr
- Kira Lynch
- Mark Maddaloni
- Chuck Maurice
- Kathleen Raffaele
- Larry Zaragoza

### MDB, Inc.

- Elmer Akin
- Maureen Avakian
- Larry Reed

## Action Items (from last webinar)

- Continue work on pilot projects  
Report back to WG on our next Webinar this summer
- Prepare summary of R2RA progress
- Identify the first mutual understanding webinar topic;  
select date
- Explore other projects

## Agenda – with minor revisions

- Introductions and roll call
- Agenda – any additions?
- Pilot Projects: Status and Lessons Learned
- R2RA Progress Report
- Ongoing Collaboration Efforts
- Potential Topics for Information Exchange
- Potential New Collaboration Efforts
- Next Steps/ Action Items

## Project Update

### Phosphate Amendments for treating lead contaminated soil

- Status
- Lessons Learned
- Q&A, discussion

#### Team members

- Heather Henry
- Mark Maddaloni
- SRP grantees

# Project Update

## PCBs Inhalation Study

- Status
- Lessons Learned
- Q&A, discussion

### Team members

- Vince Cogliano
- Heather Henry
- Geniece Lehman
- Mark Maddaloni
- U Iowa SRP

# Project Update

## Soil Vapor Intrusion

- Status
- Lessons Learned
- Q&A, discussion

### Team members

- Kathleen Raffaele
  - Eric Suuberg,
  - Kelly Pennell
- Brown U SRP

## Project Update

### Biological Response Indicator Developed for Gauging Environmental Stressors (BRIDGES)

- Status
- Lessons Learned
- Q&A, discussion

#### Team members

- Kira Lynch
- Kim Anderson,  
Oregon State U.  
SRP

## R2RA Progress Report

- Comments, Corrections, Additions?

## Ongoing Collaboration Efforts

- Risk e Learning Series
  - GIS Series in progress:
    - GIS Tools for Hazardous Site Tracking  
December 6, 2013 1-3pm EST
    - Community Engagement  
December 13, 2013, 1-3 p.m. EST
- Arsenic Scientific Meeting – Spring 2014
- SRP–ATSDR Seminar Series - 2014

## Potential Topics for Information Exchange (aka Mutual Understanding)

- IRIS/PPRTV Process and Research Needs
  - Geniece Lehmann
  - Spring – Summer 2014 – Venue TBD
- What is a Superfund Site?  
How does a site get selected and listed?
- Exposure Assessment
- Superfund Risk Assessment
- Health Assessment
- Grantee Access to Superfund Sites



## Potential New R2RA Collaboration Efforts

- Work Group Areas of Interest
- Collaboration Concepts Document



## COLLABORATION CONCEPTS

Next Seven Charts from the Collaboration  
Concepts Paper

## Analytic Methods

- Development and Application of Integrated *In Vitro* and Cell-Based Assays (CALUX)
- Optimizing Sampling and Statistical Analysis for Hazardous Waste Site Assessment

## Biomarkers of Exposure/Effect

- Biomarkers of Susceptibility to Environmentally-Induced Diseases
- Epidemiology of Developmental Windows, Metal Mixtures, and Neurodevelopment
- Plasma Biomarkers for Parkinsonism in Welders

## Remediation Enhancement

- Mass-Transfer and Mass-Flux Dynamics of Chlorinated Solvents in Heterogeneous Systems
- Application of Enhanced Mitigation Methods for Groundwater Arsenic at U.S. Superfund Sites
- Role of Mineral Genesis, Dissolution, and Sorption on Arsenic Fate in Contained Waste Sites

## Phyto-, Bio-, and Green Remediation

- Phytoremediation to Degrade Airborne PCB Congeners from Soil and Groundwater Sources
- Phytostabilization of Mine Tailings in the Southwestern United States: Plant-Soil-Microbe Interactions and Metal Speciation Dynamics
- Beyond Parent Compound Disappearance in the Bioremediation of PAH-Contaminated Soil
- Green Remediation by Solar Energy Conversion into Electrolysis in Groundwater

# Advancing Risk Assessment and Individual Susceptibility

- Determinants of Individual Variability in Arsenic Cytotoxicity
- Genetic Epidemiology of Neurodevelopmental Metal Toxicity
- Genomic and Genetic Analysis of Liver and Kidney Toxicity of Trichloroethylene
- Epidemiology, Biomarkers, and Exposure Assessment of Metals

## R01 Remediation Projects

- *In Situ* Sampling Tool for Assessing Bioavailability and Toxicity of Sediments
- Remediation Effectiveness for Mining Sites: Hysteresis and Metal Mixtures Effect
- Development of Stable Isotope Based Methods to Predict Bioavailability of Hydrophobic Organic Contaminants in Sediments
- Combining Bioavailability Assays with Modeling to Predict PCBs in Fish After Remediation
- A Real-Time Antibody-Based Field Assay to Predict Containment Bioavailability in Sediments



## SBIR Remediation Projects

- Enhanced Endophyte: Poplar System for Remediation of Organic Contaminants
- Field Deployable Vapor Intrusion Monitor
- Development of a High Performance Bioprocess for Eliminating 1,4-Dioxane in Water



# R2RA Next Steps / Action Items

## R2RA on the SRP website

<http://go.usa.gov/W97F>

- R2RA Participant List
- R2RA Action Plan
- Conference Call notes
- Progress Report
- Collaboration Concepts document

## R2RA Next Steps / Action Items

- Provide information on upcoming Risk e Learning and PCB webinars
- Finalize and post R2RA Progress Report
- Check on capacity to webcast the Arsenic Workshop
- Follow up to identify presenters for Information Exchange webinars (Kathleen, Michelle)
- Discussion Group: Grantee access to SF sites (Kira, Mike, Michelle)
- All: review Concepts document, provide feedback
- Contact new ATSDR Director
- Schedule the next call!