

## SRP and EPA collaborate on passive sampling devices

By Sara Mishamandani

NIEHS-funded Superfund Research Program (SRP) scientists are making sure devices for hazardous site assessment and cleanup get into the hands of end users, by working closely with colleagues at the U.S. Environmental Protection Agency (EPA), as well as other partners.

A course at the 23rd National Association of Remedial Project Managers (NARPM) Training Program June 16-20 in Atlanta (see [article](#)) provided a foundation to collaborate on the adoption of SRP technologies that measure bioavailability of contaminants - an EPA priority.

Bioavailability refers to the amount of a substance that can be absorbed or used by living organisms. As a result of an SRP targeted research program begun in 2011, several SRP grantees are now developing breakthrough designs for practical and cost-effective passive sampling devices that target the most relevant contaminants.

### A forum to facilitate implementation of tools

The course brought these technology developers together with EPA passive sampling experts, and included case studies from EPA remedial project managers (RPMs), who are early adopters of some of the innovative technologies (see side bar). Heather Henry, Ph.D., health scientist administrator in the NIEHS Hazardous Substances Research Branch, and Matthew Lambert of the EPA Office of Superfund Remediation and Technology Innovation (OSRTI), co-organized the course, designed to combine technical research with practical implementation steps.

"This exchange is an iterative process, so forums like these allow technology developers to learn ways to improve their devices for practical use and get the word out about how to properly use new technologies," Henry said.

"The information provided by researchers and RPMs helped me to frame the sediment and contaminant processes, explained how to use passive sampling devices to sample for contaminants, and provided some common challenges in characterizing a site and some options to design the remediation system," said Brian Lewis, a course participant and head of the California Department of Toxic Substances Control Geological Services Unit.

### Continuing the discussion

Henry and Lambert will continue to promote information exchange between technology developers and RPMs who need passive sampling devices and can provide input on practical issues in their application. The course will be the basis of a webinar series in the fall, designed to reach a broader audience.

"This is a pivotal time for the future success of passive sampling device use in environmental sampling," said Henry. "Continuing this dialogue is essential to reinforcing the confidence of users that site management decisions, supported by passive sampling device data, are truly protective of human and ecological health."

(Sara Mishamandani is a research and communication specialist for MDB Inc., a contractor for the NIEHS Superfund Research Program and Division of Extramural Research and Training.)



"Bringing together all stakeholders at this early stage of technology transfer provides an opportunity for technology developers to better meet user needs and improve guidance documents," Henry said. (Photo courtesy of Steve McCaw)

### Course instructors and development team

**Heather Henry, Ph.D.** - Course Lead  
**Matthew Lambert** - Course Lead  
**Robert Burgess, Ph.D.**, EPA Office of Research and Development  
**Mark Cantwell**, EPA Office of Research and Development  
**Upal Ghosh, Ph.D.**, University of Maryland, Baltimore County  
**Marc Greenberg**, OSRTI Environmental Response Team  
**Karl Gustavson, Ph.D.**, U.S. Army Corps of Engineers, Engineer Research and Development Center  
**Judy Huang**, EPA Region 9  
**Keith Maruya, Ph.D.**, Southern California Coastal Water Research Project  
**Rachelle Thompson**, EPA Region 9



James Smith of EPA Region 4, left, and Ghosh discussed passive sampling methods during a course break. Smith is using the SediMite remediation technology, developed by Ghosh with SRP funding, at the Turkey Creek Superfund site in Mississippi. (Photo courtesy of Heather Henry)



*From left, Gosh, Henry, Thompson, Gustavson, Burgess, Maruya, Huang, Cantwell, Lambert, and Greenberg served as instructors and development team of the well-received NARPM course. (Photo courtesy of Heather Henry)*

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