

## **Iowa SRP hosts health science and engineering summer camp**

*By Sara Mishamandani*

High school students from across the country gathered at the University of Iowa (UI) in July to explore various environmental health topics and learn more about scientific research at a week long summer camp. The UI Superfund Research Program (ISRP) hosted the camp for 20 students, focused on the sources, remediation, and human health impacts of polychlorinated biphenyls (PCBs).

Craig Just, Ph.D, and Melissa Ward of the ISRP Community Outreach Core (COC) taught a course on engineering and health science that explored real-world problems related to human health and environmental clean up.

"One of the aims of the ISRP COC and Research Translation Core (RTC) is to improve scientific literacy in junior high and high school students," said Ward. "ISRP has been involved in this camp for the past three years and the students always love learning about the complexities of a real-world problem."

The students toured the UI campus environmental health laboratories and even had the opportunity to watch a mouse necropsy. They also worked on many design challenges throughout the week, including a four-story egg drop challenge.

### **PCB contamination in the Indiana Harbor**

Students focused on the issue of PCB contamination and remediation in the Indiana Harbor and Ship Canal, the site of the ISRP study on [exposures to airborne PCBs](#).

(<http://iowasuperfund.uiowa.edu/research-projects/project-6>)

Students worked in small research teams to explore various approaches for remediating the Indiana Harbor and Ship Canal, which contains sediments contaminated with toxic industrial chemicals. The business leaders in the community say the sediments must be dredged to enable a more productive ship passage. However, residents living near the canal fear they will be exposed to harmful chemicals, including PCBs, that could be released when the sediments are disturbed. A team of health scientists and engineers are involved in this project at ISRP (see [story](#)).

(<http://www.environmentalhealthnews.org/ehs/news/2012/indiana-canal-pcbs>)

During the camp, students had the chance to work on both sides of the dredging scenario - as a health scientist and as an engineer. With hands-on exercises in environmental sampling, laboratory analysis, engineering design, and team building, students learned ways to approach the real-world problem. They then created scientific posters highlighting what they learned about PCBs. Posters were presented to the group, as part of a student poster competition. The winning poster team presented its work to students, families, and staff at the camp's closing ceremonies.

"This camp has been a great extension of our engagement work in Columbus Junction, Iowa, and East Chicago, Indiana," said Just. "The superintendent of the Columbus Community Schools came to the camp's closing ceremony a couple of years ago and shared pictures with his staff. It was a proud moment for him."

"Many students leave our program saying that the curriculum has helped inform their future college and/or career choices in either the health sciences or engineering," said Ward.

(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.)



*Students learned about the multidisciplinary nature of ISRP science, met researchers, and had the opportunity to learn about environmental health research firsthand. (Photo courtesy of Melissa Ward)*



*Students split into small research teams, to complete problem-solving exercises and learn more about the engineering and health science aspects of PCB contamination and clean up. (Photo courtesy of Melissa Ward)*

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