NIEHS scientists, grantees participate in environment and health conference

By Joe Balintfy

Environmental health researchers from around the world gathered Aug. 19-23 in Basel, Switzerland, to discuss cutting-edge research on topics including air pollution, endocrine disrupting chemicals, and childhood obesity.

The conference, Environment and Health - Bridging South, North, East and West, was a joint meeting of three societies - the International Society for Environmental Epidemiology, the International Society of Exposure Science, and the International Society of Indoor Air Quality and Climate - which resulted in more than 2,000 scientific contributions in nearly 140 sessions and symposia.

Grantees were quite prominent at this meeting, said Gwen Collman, Ph.D., director of the NIEHS Division of Extramural Research and Training (DERT). There were also a number of Institute staff and scientists who gave talks, including Collman.

"This year, there were a few areas of emphasis that I think reflect how the science is changing, and how topics NIEHS has been pursuing, in terms of program development, are coming to fruition through discussion at this meeting."

Grappling with the concept of the exposome

A pre-session workshop, and a symposium chaired by DERT Program Administrator David Balshaw, Ph.D., and Tuomo Karjalainen, D.M.D., Ph.D., European Commission Directorate-General for Research and Innovation, covered the exposome. The exposome is the measure of all the exposures of an individual in a lifetime and how those exposures relate to health.

The first session of the symposium, "International Efforts to Implement the Exposome," was led by Collman, who gave an overview of the exposome concept and outlined several challenges in seeing it become a reality. The other speakers, experts from the U.S. and European Union, presented initial efforts to characterize the exposome.

Collman said this was the first time, in a long time, she had heard people talking about both the challenges and the research data that come from looking at multiple substances, in regard to the exposome and measuring multiple chemical exposures.

"That was very exciting, to see how investigators, who have access to very large scale epidemiologic studies and data that we have invested in collecting, are now using those datasets to measure multiple exposures and analyzing it all together, as opposed to just looking at one factor at a time," Collman added.

Green topics and a green meeting

NIEHS staff also chaired or led sessions on engineered nanomaterials, endocrine disrupting chemical studies, and childhood obesity and links to the environment.

"We always have a very strong presence in the area of children's environmental health at the meeting," said Collman. "There were four exciting presentations from those groups, and a lot of really good discussion in a standing-room-only room, which I think indicates that obesity is a major health outcome that environmental epidemiologists are now trying to get in the mix, to try to understand the causes of obesity."

More than 1,700 people attended the conference and there were more than 1,200 posters presented. The conference also had the goal of being green and sustainable, with only regional and organic vegetarian food served. Collman noted that the meeting was a great place to learn what’s happening on the cutting edge.

"We always have a very strong presence in the area of children's environmental health at the meeting," said Collman. (Photo courtesy of Steve McCaw)

Balshaw is a program administrator in the DERT. (Photo courtesy of Steve McCaw)
"Organizers have done a really good job of keeping up with evolving issues in environmental health sciences, and really engaging those folks who are involved in epidemiologic research and exposure assessment to present and debate the new methods and new findings," Collman said.

Next year's conference is scheduled for Aug. 24-28 in Seattle.

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