Side Event Schedule and Descriptions

MONDAY, May 5

Preparedness and Response in Context of Microbial Contaminants, Public Health, and Extreme Events
8:45am - 5:00pm
Convened by: Savill, M., Noble, R., Sobsey, M., Stewart, J., Toranzos, G., Rose, J
Session Format: Training or Learning Workshop
Session Output: Future collaboration, output report
Contact: Rachel Noble

In the last several years throughout the world we have seen a number of extreme events which have wreaked havoc on drinking water systems and basic sanitation. Their impact on public health and water systems is far reaching, yet little work has been done to understand the role of public health and environmental microbiology. This all day session will:

- Provide an update on lessons learned for safe drinking water supply and basic sanitation in the context of natural disasters.
- Identify key site specific pathogens, situations and consequences observed during extreme events.
- Identify prophylactic methods required/available.
- Promote options for more effective disaster preparedness, responsiveness and resilience.
- Prepare recommendations on public health research needed in the areas of preparedness, response and resilience.
- Improve interface and role of public health/environmental microbiologists in extreme events.

We will consider the earthquake and flood in Christchurch, New Zealand; flooding in Calgary, Canada; the earthquake and tsunami in Japan; and Superstorm Sandy in the United States. The outcomes of this session will help to address the public health water research agenda required to address extreme events over the next five years.

Speakers include:

- Nicholas Ashbolt, University of Alberta
- Hiro Katayama, Tokyo University
- Rachel Noble, University of North Carolina at Chapel Hill
- Marion Savill, Affordable Water

**DRAFT – subject to change

TUESDAY, MAY 6

Innovative technologies to assess water quality and human exposure
8:30am – 12:00pm
Convened by: US EPA, National Exposure Research Laboratory
Session Format: Training or Learning Workshop
Session Output: Publishable Paper or Other Framework, Future Collaboration
Contact: Al Dufour

The purpose of this side event session is to bring to the attention of water resource and laboratory managers, as well as the scientific community, some of the new and innovative techniques that are becoming available for measuring water quality and assessing exposure of human populations to waterborne hazards. New technologies are becoming available which can provide more timely and more accurate data than traditional methods for measuring water quality or human exposures to specific enteric pathogens. The goal of the session is to educate and enlighten interested parties as to the value of four new approaches. Three speakers in this session will describe rapid sensor and biosensor methods useful for detecting either indicator organisms or specific pathogens within a few hours. The first speaker will describe the detection of organisms using novel technologies, such as Multiple Angle Light Scatter Reflexive Index, as real time warning sensors within the drinking water network. The second speaker will discuss a method that utilizes alternating current dielectrophoretic impedance to quantitatively detect hybridization of DNA to complementary strands bound to carbon nanotubules. This method also has two advantages; it does not require expensive fluorogens or chromogens and it is performed with a portable instrument. The third speaker will discuss a rapid method to measure antibodies in saliva specimens as biomarkers of exposure to waterborne pathogens using the high throughput Luminex platform, which can perform up to 100 simultaneous measurements to detect antibodies against specific antigens. The final speaker will describe a newly developed nucleic acid amplification technology (NAAT) that can provide results within three hours. NAAT uses an isothermal technology, thus eliminating the need for expensive polymerase chain reaction thermocycling instruments.

Writing a Publishable Scientific Paper: A Boot Camp for the Writing Process
8:30am – 12:00pm
Convened by: Georgia State University
Session Format: Training or Learning Workshop
Session Output: Publishable Paper or Other Framework
Contact: Lisa Casanova

Writing up your work for publication can be one of a scientist's biggest challenges. Your career advancement, and the advancement of your field, depends on getting your work

into the peer-reviewed literature. Do you have projects you need to write for publication? Does the writing process seem overwhelming and intimidating? Are you struggling with organization and presentation of your ideas? Do you have writing in progress that isn't coming together the way you want? Whether you are just starting research or ready to write, this interactive workshop will help you make progress on your paper with a framework for organizing your writing, and help you work toward the goal of a publishable paper by tackling all stages of your writing process.

Bring your questions and manuscript writing projects at any stage. This workshop is highly interactive- we will work with your specific examples to help you organize and plan your writing. This workshop is for scientists at any stage of the writing process, whether you are just starting or in the process of writing a manuscript.