

Call for Papers

6th International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water

Hilton Costa Mesa

Costa Mesa, California • October 22-23, 2007

The **deadline** for abstract submissions is **April 27, 2007**

Final manuscripts due **September 21, 2007**

A growing body of evidence suggests that environmental exposure to some anthropogenic chemicals may result in disruption of endocrine systems in human and wildlife populations. Concerns of endocrine disrupting chemicals (EDC's) appearing in the environment (e.g. water, soil, and other environmental compartments) and foodstuffs have focused considerable national and international interest on their origin, transport, fate, and effects, especially given the environmental persistence of select EDCs. NGWA's 6th International Conference on Pharmaceuticals and Endocrine Disrupting Chemicals in Water provides a timely and comprehensive vehicle to address this topic as science continues to advance. NGWA is one of the leading publishers on pharmaceuticals and EDC's in water and will publish accepted abstracts and papers in a full proceeding at the time of the conference.

Risk management tools and the need for their further development to address pharmaceuticals and EDCs were clearly identified in the fifth conference (March 13-15, 2006, Costa Mesa, CA). This international conference will continue along these same avenues to provide comprehensive coverage of the latest scientific advancements in this important research topic. The conference will highlight innovative and cost-effective technologies in the equipment marketplace, as well as new regulatory approaches on human and environmental risk assessment and management in Europe and the United States.

Human Health

Research is pointing to a range of diseases in humans and wildlife that are associated with exposure to endocrine disrupting chemicals. The possibility of serious adverse effects on human populations, and the persistence of certain EDCs in the environment, will continue to keep EDCs in the spotlight. NGWA will again provide a timely and comprehensive vehicle to publish research on EDCs, as the science advances. New approaches for human risk assessment are necessary and need to be discussed. Such approaches should take into account all potential routes of exposure and need to address issues such as the long-term exposure of humans by multiple residues at sub-therapeutic doses.

Drug-Resistant Bacteria and Viruses

One of the dominating concerns in the news media has been the creation of "superbugs." New strains of bacteria have evolved, which are resistant to antibiotics, and have been detected in various water resources in both urban and rural settings. In one study alone, antibiotic-resistant microbes have been found in 15 rivers, including the Mississippi, the Ohio, and the Colorado. Do these represent a threat to human health?

Endocrine Disrupting Chemicals and Wildlife

Disturbing evidence has been presented regarding the harmful effects on wildlife from exposure to EDCs (e.g. natural and synthetic hormones). Such effects include sex reversal in alligators, intersex fish, skewed sex ratios, eggshell thinning of birds, reduced fertility of fish and significantly reduced bird populations. Hundreds of organochlorine compounds used as pesticides and industrial chemicals (e.g. PCBs) appear to be persistent in the environment and bioaccumulate,

with exposures to these compounds being widespread throughout the globe. This conference will continue to provide comprehensive coverage of the latest scientific advancements in this important research topic.

Risk Management and Treatment Technologies for Pharmaceuticals and EDCs

Risk management tools and the need for their further development to address pharmaceuticals and EDCs have been clearly identified. This conference will highlight innovative and cost-effective risk management technologies and a number of successful treatment technologies for drinking water and waste water.

Conference Advisors

Thomas Heberer, Ph.D., Federal Institute for Risk Assessment (BfR), Germany

Dana Kolpin, U.S. Geological Survey

Robert Masters, National Ground Water Association

Sebastian Zuehlke, Ph.D., Institute of Environmental Research, University of Dortmund, Germany

Special Invited Guest Speakers:

Dr. Andrew C. Singer, Centre for Ecology & Hydrology, Oxford, England

"Potential Risks Associated with the Proposed Widespread Use of the Bird Flu Vaccine, Tamiflu"

Mr. William Wooge, Office of Science Coordination and Policy, U.S. EPA

Designated Federal Official, Endocrine Disruptor Methods Validation Advisory Committee

"Implementing the United States' Endocrine Disruptors Screening Program"

Abstracts will be selected on the following topics:

- Occurrence of pharmaceuticals and EDCs in the environment
- New regulatory approaches in the US and in Europe
- Human health effects from exposure to EDCs and pharmaceuticals
- Transport and fate of pharmaceuticals and EDCs in the environment
- Current research by pharmaceutical manufacturers
- Formation and promotion of antibiotic resistance in the environment
- Field studies on fate and transport from land applied manure and sewage sludge
- Uptake of pharmaceuticals and EDC residues by plants for human consumption
- Steroidal hormones: sources, fate, transport, and treatment
- Risk assessment and management of pharmaceuticals and EDCs
- Endocrine disruption from pesticides
- Comparison of treatment technologies: efficacy and costs
- Modeling and measurement of pharmaceuticals from hospitals, municipal and veterinary sources
- Natural attenuation of pharmaceuticals and EDCs
- Antibiotics and drug resistant bacteria and viruses
- Human and veterinary sources of pharmaceuticals and EDCs to the environment
- Uptake of pharmaceuticals and EDCs by terrestrial and aquatic organisms.
- Effects of pharmaceuticals and EDCs on wildlife
- Proteomic and genomic approaches for assessing EDC's effects on cells
- Technologies for detection, evaluation of metabolism, and activities of EDCs
- Innovative and cost-effective remediation and treatment technologies
- Sustainable natural removal processes.

More information at: [National Ground Water Association](#)