

USEPA, Office of Water & Office of Research and Development, Cincinnati Ohio 45268

Presents a one day symposium

“Emerging Aspects on Freshwater Harmful Cyanobacterial Blooms and their Effects on Drinking Water Quality”

Scientific evidence suggests that spatial and temporal incidence of harmful cyanobacterial blooms (HCB) is increasing, posing potential risks to human health and ecosystem sustainability. Currently, there are no US Federal guidelines concerning management, Water Quality Criteria and Standards, or recreational and drinking water regulations of freshwater HCB. US EPA Cincinnati Office announces a one day symposium on Tuesday, 18 November 2008: Emerging Aspects on Freshwater Harmful Cyanobacterial Blooms and their Effects on Drinking Water. The goal of this symposium is to bring several international/national speakers together to facilitate novel research being performed in the area of freshwater HCB relative to recreational and drinking waters. The HCB symposium presentation topics address: 1) exposure from drinking water and recreational waters, 2) current and emerging technologies for quantifying and monitoring algal toxins, 3) reservoir management and 4) advancements in drinking water technologies to remove algal toxins. The targeted audience includes research scientists, drinking water managers, and environmental health practitioners. After the symposium there will be a panel discussion on the development of analytical methods to determine levels of microcystins LR, RR, YR and LA in finished drinking.

Where: USEPA Auditorium
USEPA/AWBERC
Office of Water & Office of Research and Development
26 West Martin Luther King Drive
Cincinnati, OH 45268

Time: 8:25 am to 5:30 pm with a panel discussion on the development of analytical methods for microcystins following the last speaker.

Cost: NONE

Please register by emailing or faxing your name and affiliation to Dr. Judy Westrick at jwestrick@issu.edu Fax number. (Include in the Subject: USEPA Symposium Registration) Attention Judy Westrick 906-635-2266. Last minute registration will be taken in the USEPA Auditorium entrance starting at 7:45 am.

Emerging Aspects on Harmful Algal Blooms and their Effects on Drinking Water Quality

Tuesday-November 18, 2008 US EPA, Cincinnati, OH

8:25	Introduction and Moderators: James Sinclair and Armah de la Cruz		
Time	Speaker	Country	Title
8:30	Wayne Carmichael	USA	Current and emerging technologies for the detection and monitoring of Cyanobacteria toxins-the cyanotoxins
9:15	Richard Rediske	USA	Cyanobacteria toxins in recreational waters of Michigan
9:40	Betsy Hillborn	USA	Human health effects associated with cyanobacteria and their toxins
Break: 10:05-10:20			
10:20	Tony Fristachi	USA	An assessment of human exposure to microcystins from consumption of treated drinking water in the United States
10:45	Ingrid Chorus	Germany	What do we know about the relevance of cylindrospermopsin in drinking water supplies - and what do we still need to find out?
11:10	Stuart Oehrle	USA	Analysis of various toxins produced by cyanobacteria using Ultraperformance liquid chromatography-tandem mass spectrometry (UPLC/MS/MS)
11:35	Dionysios D. Dionysiou	USA	Elucidating the mechanistic steps of the photocatalytic oxidation of microcystin-LR and cylindrospermopsin with immobilized TiO ₂ photocatalysts
Lunch: 12:00-1:30 pm			
13:30	Gregory L Boyer	USA	Newer analytical techniques and development of automated monitoring programs.
13:55	Ben Southwell	USA	Evaluation of an intracellular cyanotoxins analytical method by HPLC/UV and LC/MS
14:20	Ken Hudneel	USA	Harmful algal bloom control and prevention strategies
14:45	Paul V. Zimba	USA	Control of phytoplankton and bacteria using ultrasound: field and laboratory evaluations.
Break: 3:10-3:25			

15:25	Linda Lawton	United Kingdom	Evaluation and exploitation of microbes in the elimination of cyanotoxins from water
15:50	Harold W. Walker	USA	Removal of microcystin-LR using membrane processes
16:15	David Waite	Australia	Role of trace nutrient availability and reactive oxygen species generation in occurrence and toxicity of harmful algal blooms
16:40	Kevin E. O'Shea	USA	Radical oxidation and photolytic transformations of cyanotoxins
17:30	Panel discussion on the standardizing analytical methods for microcystin LR, RR, YR and LA		