

## EmCon2009 Preliminary Program

### TUESDAY August 4, 2009

Time	Speaker/Event	Abstract #	Title
<b>14:00</b>	<b>Registration</b>		
14:30	Set Up Posters		
16:00	Reception		
17:50	Opening Remarks		
<b>18:00</b>	<b>Christian Daughton</b>	<b>1</b>	<b>Peering into the Shadows of Chemical Space. Emerging Contaminants and Environmental Science: Is either being served by the other?</b>
<b>18:30</b>	<b>Thomas Bucheli</b>	<b>5</b>	<b>New areas of research: towards a chemically transparent environment</b>
<b>19:00</b>	<b>Karen Kidd</b>	<b>4</b>	<b>Is the birth control pill an effective form of contraception for wild fishes? Results from a whole lake experiment</b>

### WEDNESDAY August 5, 2009

Time	Speaker	Abstract #	Title
8:20	Opening Remarks <b>Analysis</b>		
<b>8:30</b>	<b>Kevin Thomas</b>	<b>3</b>	<b>From coke to the real thing: How everyday actions contaminate our environment</b>
9:00	Malcolm J Reid	25	Analysis of illegal drugs and narcotics in wastewater by UPLC-MS/MS

9:15	Juliane Hollender	13	High resolution mass spectrometry as a tool to unravel the relevance of transformation products in the environment
9:30	Steven R. Corsi	8	Detection of Enteric Viruses in Surface Water Using Large Volume Automated Sample Filtration Techniques
9:45	Amy Risen	17	Pharmaceuticals, precursors & metabolites in wastewater impacted by pharmaceutical manufacturing facilities
<b>10:00</b>	<b>Break</b>		
10:30	Katherine H Langford	24	A biomarker approach to monitor the influence of climatic change on contaminant inputs to receiving waters through effluent discharge
10:45	Imma Ferrer	16	Analysis of Phytoestrogens in Food and Water by LC/TOF-MS
11:00	David Alvarez	10	The role of passive sampling devices for emerging contaminant monitoring programs
11:15	Vimal K. Balakrishnan	19	Developing aqueous and sediment extraction techniques for sulfonamide antibiotics: The first step towards assessing their environmental fate
11:30	Daniel D. Snow	30	LC-Tandem MS analysis of pharmaceuticals and steroid hormones in wastewater impacted environments

	<b>Sources &amp; Occurrence</b>		
11:45	Keith Loftin	42	Preliminary Assessment of Cyanotoxin Occurrence in the United States
12:00	Lunch		
13:30	Charles A. Sanchez	37	Pharmaceuticals in Surface Waters and Potential Transfer to Irrigated Food Crops
13:45	Bjarne W. Strobel	56	Biomedicine crops: Artemisinin in soil
14:00	Grant Northcott	38	The significance of dairy shed effluents as a source of steroid estrogenic hormones and estrogenic activity in New Zealand
14:15	Dana Kolpin	36	What's in your flood waters? Emerging contaminant results from the historic 2008 flooding of the midwestern United States
14:30	Martin Hansen	45	Drugs in the environment: Anticoccidials
14:45	Mark J. Benotti	35	Implications of Pharmaceuticals and Endocrine Disrupting Compounds for the Drinking Water Industry
15:00	Hans Christian Bruun Hansen	39	Natural toxins - why care?
<b>15:15</b>	<b>Break</b>		

15:30	Corinne C. Hoerger	33	Occurrence of Phytoestrogens in Swiss and US surface waters
15:45	Patrick J. Phillips	50	The Contribution of CSOs to Emerging Contaminants in the Lake Champlain Basin, Vermont
16:00	J Farkas	41	Initial assessment of silver nanoparticles from washing machines
16:15	Y. Sapozhnikova	57	Irgarol 1051 in the marine environment: ubiquitous and persistent?
16:30	David R. Parker	49	Not Just Rocket Fuel: The Ongoing Search for Naturally Occurring Perchlorate
<b>18:00 - 20:30</b>	<b>POSTER RECEPTION</b>		

**THURSDAY August 6, 2009**

Time	Speaker	Abstract #	Title
8:20	Opening Remarks Fate & Transport		
<b>8:30</b>	<b>Alistair Boxall</b>	<b>2</b>	<b>Veterinary drugs in the environment: Do we really understand exposure?</b>
9:00	Michael T. Meyer	46	Occurrence Patterns of Antibiotics in Human and Agricultural Waste and Their Transport in Surface and Ground water
9:15	Igal Gozlan	60	Amoxicillin Degradation Products in Various Aquatic Environments

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**Organizing Committee: Thomas Borch, Alistair Boxall, Ed Furlong and Dana Kolpin**

9:30	Ludmilla Aristilde	65	Mechanisms of Divalent Cation-Mediated Interactions of Antibiotics with Soil Particles: Spectroscopic, Crystallographic, and Molecular Modeling Studies
9:45	Heather Storteboom	77	Source-tracking of Antibiotic Resistance Genes (ARG) in the South Platte River Basin using molecular methods and geospatial analysis
<b>10:00</b>	<b>Break</b>		
10:30	Linda Lee	73	Discharge from and Persistence in Hormones from Tile-drained Fields Receiving Animal Wastes
10:45	Dror Avisar	59	Sulfamethoxazole Contamination of a Deep Phreatic Aquifer
11:00	Melanie Netherton	75	Uptake, Depuration and Metabolism of Human Pharmaceuticals in <i>Gammarus pulex</i> .
11:15	Paul M. Bradley	80	Biodegradation Potential of Contaminants of Emerging Concern in Effluent Impacted Stream Systems
11:30	Judith Schenzel	63	Mycotoxins: Overlooked Aquatic Micropollutants
11:45	Ajit K. Sarmah	86	Sorption of free and conjugated steroid hormones in dairy soils using CaCl <sub>2</sub> and artificial urine solutions
<b>12:00</b>	<b>Lunch</b>		
13:30	Robert B. Young	90	Photochemical Transformation of Steroid Sex Hormones in the Presence of Ultraviolet (UV) Light and Selected Natural Photosensitizers

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13:45	Allan J. Cessna	81	Environmental fate and transport of the veterinary antimicrobial lincomycin
14:00	Benny Chefetz	70	Fate of Pharmaceutical Compounds in Soils Irrigated with Reclaimed Wastewater: Sorption, Mobility and Plant uptake
14:15	Laurel A. Royer	85	Ester Hydrolysis of Fluorotelomer Stearate and Acrylate in Soil
<b>14:30</b>	<b>Break</b>		
14:45	Higgins, Christopher P	72	Persistence and Bioaccumulation of Triclocarban and Triclosan in Soils after Land Application of Municipal Biosolids
15:00	Yun-Ya Yang	82	Biodegradation of Steroid Hormones in Swine Manure
15:15	Barret M	66	A three-compartment model for contaminants adsorption in sludge
<b>15:30</b>	<b>end of talks</b>		
<b>16:00</b>	<b>Bus Leave to Estes Park</b>		
<b>18:00</b>	<b>Gala Dinner at Estes Park</b>		

**FRIDAY August 7, 2009**

Time	Speaker	Abstract #	Title
8:20	Opening Remarks		

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	Effects		
8:30	Dana L. Winkelman	108	Exposure to 17 $\beta$ -estradiol Alters Reproductive traits and Success of the Adult Red Shiner ( <i>Cyprinella lutrensis</i> )
8:45	Heiko L. Schoenfuss	105	Assessing Effects of Environmentally Realistic Concentrations of Antidepressants, Singularly and as Mixtures, on Several Life Stages of Fathead Minnows
9:00	L.R. Iwanowicz	100	Fish Kills, Intersex and Estrogenic Endocrine Disrupting Chemicals in the Potomac River Watershed, USA
9:15	Vicki Blazer	93	Reproductive Abnormalities in Yellow Perch: Possible Association With Emerging Contaminants
9:30	Leila Nyberg	96	Assessment of the Impact of PEGylated Single-Walled Nanotubes (SWNT-PEG) in an Anaerobic Environment
9:45	Timothy G. Loes II	102	The Bioavailability of Endocrine-Active Compounds to <i>Daphnia magna</i>
10:00	Colleen Flanagan	97	Emerging Contaminants and Endocrine Disruption in National Parks: Findings and Implications from the Western Airborne Contaminants Assessment Project (WACAP)
10:15	<b>Break</b>		
10:45	Vesna Furtula	91	Phytotoxicity and uptake of nicarbazin and monensin in plants
11:00	Yogesh Chander	92	Effects of Subtherapeutic Use of Antibiotics in Swine Farms on the Prevalence of Antimicrobial Resistance Bacteria

11:15	Marlo K. Sellin	95	Endocrine disruption in an agricultural watershed: Sediments as a potential source of exposure
	<b>Treatment &amp; Water Reuse</b>		
11:30	Gordon C. C. Yang	116	Treatment of Nanoparticle-Containing CMP Wastewater by the Simultaneous Electrocoagulation and Electrofiltration Process Using Tubular TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> Composite Membranes
11:45	Marc A. Mills	112	Removal of selected endocrine disrupting chemical during on-site wastewater treatment using a constructed wetland
12:00	<b>Lunch</b>		
13:30	Dana Milstein	109	Biotransformation and Removal of Estrogenic Contaminants by a Constructed Wetland
13:45	H. Bouju	111	Are MBRs really more efficient in removing pharmaceuticals? Comparison of a full scale Conventional Activated Sludge process and a MBR pilot plant
	<b>Treatment &amp; Water Reuse/Policy and Prevention</b>		
14:00	Combalbert Sarah	113	Fate of Steroid Hormones and Multiple Endocrine Activities in Agricultural Waste Treatment Facilities
14:15	Studer, Kirsten E	117	Removal of Endocrine Disrupting Chemicals and their Degradation Byproducts
14:30	Peter G Stoks	121	The EU Water Framework Directive: Emerging contaminants and source water protection from the viewpoint of Rhine water utilities

14:45	Carol E. Lyons	120	Addressing Pharmaceuticals and Personal Care Product Contamination: A Unique Opportunity to Link Science to Effective Policy and Action
<b>15:00</b>	<b>CLOSING REMARKS</b>		

**POSTER SESSIONS (posters will be displayed during the entire meeting)**

paper #	Presenting Author	Title	Topic
<b><i>Poster Topic 1: Analysis</i></b>			
6	Leif Abrell	Detection and Quantification of EDC/PPCPs in Source Waters Containing Dissolved and Colloidal Organic Matter	1
7	Assaf Lamm	Method Development for Extraction and Determination of Aminopenicillins Residues from Wastewater and Effluent Samples	1
9	Teyona R. Damon-Powell	Development of an on-line SPE liquid chromatography tandem mass spectrometry method utilizing an atmospheric pressure photoionization (APPI) source for the detection of natural and synthetic steroids	1
11	David Alvarez	Wastewater to Drinking Water: Are emerging contaminants making it through?	1
12	David Alvarez	Reconnaissance of Persistent and Emerging Contaminants in the Shenandoah and James River basins, Virginia, During Spring of 2007	2
14	Thomas J. Brown	Rapid Lab-Scale Extraction and Analysis of Anthropogenic Chemicals Found in River Sediments	1
15	E. Michael (Mike) Thurman	EPA Method 1694: A Critical Review of Solid Phase Extraction Methods of Pharmaceuticals and Personal Care Products in Water Measured by LC/TOF-MS	1

17	Amy Risen	Pharmaceuticals, precursors & metabolites in wastewater impacted by pharmaceutical manufacturing facilities	1
18	Kang Xia	Application of Molecularly Imprinted Polymers to Selective Extraction of Triclosan and Triclocarban from Water, Soil, and Biosolids for Analysis on High Performance Liquid Chromatography with UV Detector	1
20	Ali Wolfgang Haghani.	Multi-residue analysis for Emerging Contaminants	1
22	Katherine H Langford	Do fish medicines used in aquaculture pose a risk to the Norwegian environment?	2
23	Katherine H. Langford	Identification of organic contaminants, including those naturally occurring, in the Norwegian marine environment	1
26	Michael Zumwalt	THE USE OF ACCURATE MASS, ISOTOPE RATIOS AND MS/MS FOR THE IDENTIFICATION OF PPCPs IN WATER	1
27	André Schreiber	New Residues of Pesticides in Drinking Water: Determination of Chloridazon and its Metabolites by LC/MS/MS	1
28	Christopher Borton	LC/MS/MS for the Analysis of Perfluorinated Compounds	1
29	Jody A. Shoemaker	Development of a U.S. EPA Method for the Analysis of Pesticides and Degradates on the Drinking Water Contaminant Candidate List by LC/MS/MS	1
30	Daniel D. Snow	LC-Tandem MS analysis of pharmaceuticals and steroid hormones in wastewater impacted environments	1
31	André Schreiber	Multi-Target and Unknown Screening for Endocrine Disrupting Compounds and Pharmaceuticals and Personal Care Products in Water Samples Using LC/MS/MS	1
32	Christopher Borton	Accelerated Quantitation and Identification of Pharmaceuticals and Personal Care Products in Water Samples Using LC/MS/MS and Library Searching	1

<b>Poster Topic 2: Sources and Occurrence</b>			
34	Michael Bartkow	Monitoring trace organics in a subtropical reservoir using passive samplers and bioassays: Baseline monitoring prior to the introduction of indirect potable reuse (IPR)	2
35	Mark J. Benotti	Implications of Pharmaceuticals and Endocrine Disrupting Compounds for the Drinking Water Industry	2 or 5?
37	Charles A Sanchez	Pharmaceuticals in Surface Waters and Potential Transfer to Irrigated Food Crops	2
40	Anne F. Choquette	Pesticides and Degradates (including Triazines) in Ground Water and Seepage Lakes in a Sand Aquifer: Implications for Persistence and Fate	2
42	Keith A. Loftin	Preliminary Assessment of Cyanotoxin Occurrence in the United States	2
43	Susan T. Glassmeyer	Pharmaceuticals and Other Emerging Contaminants in Source and Finished Drinking Water	2
44			
47	Elena Nilsen	Pharmaceuticals and Personal Care Products Detected in Sediments of the Lower Columbia River Basin	2
48	Robert B. Brobst	Occurrence of Emerging Contaminates in Sewage Sludge, Results from the Targeted National Sewage Sludge Survey	2
51	Adam L. Foster	Organic Wastewater Compounds, Antibiotics, Hormones, and Pharmaceuticals in Drinking Water and Ground Water in Miami-Dade County	2
52	Věra Očenášková	Occurrence of Synthetic Musk Compounds in Surface Waters of the Czech Republic	2
53	Grant Northcott	Common antimicrobial compounds in New Zealand municipal waste water effluents	2

54	Bjarne W. Strobel	Toxic potato glycoalkaloids in field soils	2
55	Jason R. Vogel	Emerging Chemical and Microbiological Contaminants in Combined Sewer Overflows, Stormwater, and Receiving Streams in Omaha, Nebraska	2
57			
58	Yelena Sapozhnikova	Synthetic musk fragrances: ubiquitous contaminants in the marine environment	2
<b>Poster Topic 3: Fate and Transport</b>			
61	Dror Avisar	The Occurrence of Oxytetracycline in Local Groundwater beneath Fish Pond	3
62	Dror Avisar	Sorption of Antibiotic to Clay	3
64	Kuldip Kumar	Antibiotics Losses from Swine Manure Application on Tile Drained Soils	3
67	Thomas Borch	Steroid Hormone Runoff from an Agricultural Field Applied with Biosolids	3
68	H. Bouju	The fate of 14C-radiolabelled diclofenac and 4'-hydroxydiclofenac in a laboratory scale MBR	3
69	Wirth, E	An assessment of the presence and fate of pharmaceuticals and personal care products (PPCPs) found in treated wastewater discharges into Charleston Harbor, South Carolina	3
71	Jens Blotevogel	Quantum Mechanical Degradation Pathway Prediction for New and Emerging Contaminants	3
73	Linda S. Lee	Discharge from and Persistence in Hormones from Tile-drained Fields Receiving Animal Wastes	3
76	Mari-Vaughn V. Johnson	Municipal Biosolid Applications: Improving ecosystem services across urban, agricultural, and wildlife interfaces in Austin, Texas.	3

	Maja Karlsson	Sorption of Ionisable Chemicals to Natural Sediments	3
78	Claudio Zaccone	Occurrence of organic and inorganic contaminants in undisturbed bog profiles	3
81	ALLAN J. CESSNA	Environmental fate and transport of the veterinary antimicrobial lincomycin	3
83	Chenxi Wu	Adsorption and Degradation of Triclosan and Triclocarban in Soils and Biosolids Amended Soils	3
84	E. Pérez-Carrera	Environmental fate of pharmaceuticals and pesticides in soil, sediment and sludge samples of Agriculture Area of Jerez de la Frontera and Guadalete River (Cádiz, SW Spain).	3
86	Ajit K Sarmah	Sorption of free and conjugated steroid hormones in dairy soils using CaCl <sub>2</sub> and artificial urine solutions	3
87	John E. (Jack) Watson	Time Dependent Sorption of Estrone to Soil	3
88	Charles W. Walker	Design of an Unsaturated Soil Column to Determine Estrone Transport Parameters	3
89	Tracy J.B. Yager	Dissipation of Emerging Contaminants in Biosolids Applied to Non-Irrigated Farmland in Eastern Colorado	3
<b>Poster Topic 4: Effects</b>			
91	Vesna Furtula	Phytotoxicity and uptake of nicarbazin and monensin in plants	4
92	Yogesh Chander	Effects of Subtherapeutic Use of Antibiotics in Swine Farms on the Prevalence of Antimicrobial Resistance Bacteria	4

93	Vicki Blazer	Reproductive Abnormalities in Yellow Perch: Possible Association With Emerging Contaminants	4
94	Martine Muusse	Effects-directed identification of dioxin-like compounds in Norwegian moss	4
95	Marlo K. Sellin	Endocrine disruption in an agricultural watershed: Sediments as a potential source of exposure	4
98	Vidal D. E.	Investigation of Endocrine Disruption in Southern California Coastal Fish	4
99	R.E. Hannah	Application of an Intelligent Testing Strategy in Assessing Endocrine Effects of a Pharmaceutical Compound	4
101	Alan S. Kolok	The Mini-Mobile Environmental Monitoring Unit: A Novel Bio-assessment Tool	4
103	Louis H. Sigtermans	Selection of resistant bacteria within an environmental community in response to low-level exposure to an antibacterial agent	4
104	Přemysl Soldán	Method for complex evaluation of chronic effects of the total surface water pollution used in the Czech Republic	4
106	Alan Vajda	REPRODUCTIVE DISRUPTION OF FISHES BY ENDOCRINE-ACTIVE WASTEWATER EFFLUENTS	4
107			
<b><i>Poster Topic 5: Treatment and Water Reuse</i></b>			
110	Masoud N. Azar	Fate of Surfactant and Antimicrobial Constituents in Landscape Soil Irrigated with Household Graywater	5
112	Marc A. Mills	Removal of selected endocrine disrupting chemical during on-site wastewater treatment using a constructed wetland	5

114	Keith E. Miller	Removal of antibiotics from wastewater by wet oxidation	5
115	Patel Kaushal P.	Ultraviolet Disinfection And Reverse Osmosis Cleaning (UVARO) : A Combinational Approach For Water Purification In Pharma Industries Of Developing Country Like India	5
118	Ngoc Han TRAN	Role of nitrification in the degradation of selected pharmaceutically active compounds by enriched nitrifier culture	5
	Izabela Jannotta	Emerging technologies and approaches to minimize discharges of ammonia and total suspended solids into Lake Michigan	5
<b><i>Poster Topic 6: Policy and Prevention</i></b>			
119	Edith Gagnon	Pharmaceutical Disposal Programs for the Public: A Canadian Perspective	6