SETAC INTERNATIONAL PROGRAMS COMMITTEE SYMPOSIUM
APPLICATION OF WEIGHT-OF-EVIDENCE (WOE) IN RISK-BASED ECOLOGICAL ASSESSMENT FRAMEWORKS

FINAL SYMPOSIUM PROGRAM

MAY 3, 2015
BARCELONA, SPAIN

Session I. Risk Assessment Frameworks Overview

Time	Topic	Speaker(s)
9:00am	Introduction / Symposium Goals	Karluss Thomas Chair – SETAC International Programs Committee
9:10	US Environmental Protection TSCA Work Plan Assessment Program	Tala Henry US EPA
9:35	Canada Chemicals Management Plan (CMP)	Robert Chenier Environment Canada
10:00	Australia Inventory Multi-tiered Assessment and Prioritisation (IMAP)	Angela McKinnon Head Of Programme, Existing Chemicals Program
10:25	REACH: Use of WoE in Data Requirements and Assessments	Watze de Wolf ECHA
10:50	Korea REACH	Hak-Kyun Maeng Deputy Director, Chemicals Policy Division
11:15	Session Discussion & Questions	

12:00 Lunch (Provided)

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Session II. Critical Scientific Parameters for Ecological Risk Assessment

Time	Topic	Speaker(s)
1:00pm	Session Introduction: Overview of Framework for Environmental Risk Assessment	Jon Arnot, PhD ARC Arnot Research & Consulting
1:15	Problem Formulation for Risk-Based Ecological Assessments	Keith Solomon University of Guelph
1:35	Assessing Data Quality and Strength of Evidence	Jane Staveley Exponent
1:55	Fate & Exposure Assessment in WoE Ecological Assessments	Todd Gouin Unilever
2:15	WoE in Toxicity Assessment for Ecological Assessment	Pat Guiney University of Wisconsin
2:35	Characterization of Uncertainty in WoE Ecological Assessments	James Bridges University of Surrey, UK

3:00 Break

Session III. Case Studies

Time	Topic	Speaker(s)
3:15pm	Case Study #1 – Detergent Alcohols	Paul DeLeo American Cleaning Institute Scott Dyer Procter & Gamble
3:45	Case Study #2 - Activity Based Environmental Risk Assessment of Di-Phthalate Esters	Frank Gobas Simon Fraser University

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Session IV. Knowledge / Data Gaps & Next Steps

Time	Topic	Speaker(s)
4:15pm	Facilitated Discussion	Mary Reiley
4:45	Summary / Next Steps	Mary Reiley / Karluss Thomas
5:00	Adjourn	Karluss Thomas

5:15 ***Networking Reception following Symposium with complimentary appetizers, beer, and wine***

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MO225 Molecularly imprinted polymer-based solid phase microextraction fibers for the selective separation and enrichment of the antiviral drug Abacavir from aqueous matrices Z. Terzopoulou, M. Papageorgiou, G. Kyzas, D. Bikiaris, D. Lambropoulou, Aristotle University of Thessaloniki / Chemistry. The environmental release of antiviral drugs, like other active pharmaceutical ingredients, is of considerable concern due to potential ecosystem alterations and the development of viral resistances. Based on these concerns and the potential release of large amounts of anti-influenza drugs during pandemic outbreaks, there is a need for sensitive and reliable separation and enrichment methods. Solid phase microextraction (SPME) is currently among the most popular pre-treatment techniques for extracting and enriching analyte from environmental samples and thus development of new SPME sorbents has received considerable attention. Recently, the removal and enrichment of pharmaceuticals with selective adsorption onto molecularly imprinted polymers (MIPs) is characterized as one of the most promising techniques, since MIPs have specific binding sites with complementary size, shape, and functional groups to the template molecule and thus can recognize targets with high selectivity. In this light, novel MIP-based SPME fibers for the selective separation and enrichment of antiviral drugs from aqueous matrices were prepared. Abacavir, which is a HIV-1 reverse transcriptase inhibitor, was chosen as the model compound. The structure of the MIP fibers was characterized by FT-IR spectroscopy, SEM and X-ray Diffraction. The performance of the prepared SPME MIPs was evaluated by various parameters (i.e pH, contact time, temperature, initial compound concentration etc). The developed method by using LC-MS was thoroughly validated for its linearity, selectivity, precision and accuracy. Under the working extraction conditions, the proposed method showed good linearity in the range of 50-1000ng/L, repeatability of the extractions (RSD < 4.3%, n=3), and low limits of detection (< 5ng/L). This method combined the advantages of MIPs and SPME, and it could become an alternative tool for analyzing the residues of antiviral drugs in complex water matrices, such as wastewaters.

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