

# Sampling and Analysis of Emerging Contaminants in the Aquatic Environment: Current and Future Challenges

When: **March 1<sup>st</sup> and 2<sup>nd</sup> 2012**

Where: **NIVA, Gaustadalléen 21, 0349 Oslo, Norway**

Hosted by Norwegian Institute for Water Research (NIVA), [www.niva.no](http://www.niva.no)  
Organised by Norman – Network of Reference Laboratories for Monitoring of Emerging Environmental Pollutants, [www.norman-network.net](http://www.norman-network.net)

The Network of reference laboratories, research centres for monitoring emerging environmental pollutants (NORMAN) is an independent and competent platform in the field of emerging pollutants. NORMAN facilitates an exchange of information, debate and research collaborations at a global level with official recognition from institutional agencies of the EU.

The workshop on the “Current and Future Challenges Associated with the Sampling and Analysis of Emerging Contaminants in the Aquatic Environment” will discuss the challenges and pit-falls of working with emerging contaminants. The workshop will tackle three specific themes:

- **How do we effectively sample for emerging compounds?**
- **How do we identify the next generation of emerging compounds?**
- **What are the next generation of emerging compounds?**

The main objectives of the workshop are to discuss and evaluate whether the approaches currently in place are effective for the sampling and analysis of emerging contaminants, to develop a framework for identifying the next generation of emerging compounds and see what new contaminants are emerging.

## Programme

### Day 1

12:30 Registration and Lunch

14:00 **Welcome** by James Berg, Research Director (NIVA)

14:10 **Introduction** by Kevin Thomas (NIVA)

#### Session 1: How do we identify the next generation of emerging compounds?

14:30 **Do we focus on the right compounds?** Werner Brack (UFZ, Germany)

15:00 **Complex mixtures of organic toxicants: what are they – and does it even matter?** Steve Rowland (Univ. Plymouth, UK)

15:30 **Accurate mass screening for known unknowns.** Jana Weiss (VU, The Netherlands)

16:00 Coffee break

16:20 **Identifying persistent, bioaccumulative and toxic substances among the chemicals on the EU market.** Martin Scheringer (ETH, Switzerland)

16:50 **Contaminant profiling: A set of next generation analytical tools to deal with contaminant complexity.** Jan H Christensen (Univ. Copenhagen, Denmark)

*Panel discussion: Framework for identifying the next generation of emerging compounds*

18:00 Drinks and tapas kindly supported by Waters



## Day 2

### Session 2: How do we effectively sample for emerging compounds?

- 09:00 **Passive methods for sampling and in situ extraction of emerging contaminants - challenges and opportunities.** Christopher Harman (NIVA, Norway)
- 09:30 **Sampling from highly dynamic (waste)water streams: challenges and solutions - or vice versa.** Christoph Ort (Eawag, Switzerland)
- 10:00 **Understanding the bioaccumulation of emerging contaminants: challenges in field sampling and design.** Katrine Borgå (NIVA, Norway)
- 10:30 Coffee break
- 10:50 **Identifying emerging compounds in Norway.**  
Bård Nordbø (Climate and Pollution Agency, Norway)

#### *Panel discussion: Approaches for effectively sampling emerging compounds*

- 12:00 Lunch

### Session 3: What are the next generation of emerging compounds?

- 13:00 **Transformation products: New emerging contaminants of the urban water cycle.**  
Thomas Ternes (BfG, Germany)
- 13:40 **Hot contaminant session (10 mins)**
- An international collaborative study on the use of passive samplers in monitoring of emerging pollutants.**  
Branislav Vrana, Water Research Institute, Slovakia
- Amines and transformation products from CO<sub>2</sub> capture facilities.**  
Merete Grung, Norwegian Institute for Water Research (NIVA), Norway
- Transformation products of pharmaceuticals as contaminants of emerging concern in the urban water cycle.**  
Marlen Vasquez, University of Cyprus, Cyprus
- Cytotoxic drugs in sewage effluents.**  
Neville Llywellyn, CEH Lancaster, Lancaster Environment Centre, UK
- Aquaculture medicines - do they pose a risk?**  
Katherine Langford, Norwegian Institute for Water Research (NIVA), Norway
- 14:30 Coffee break
- 14:50 **Determination of azaarenes and their oxidation products azaarones in Dutch rivers and the Wadden Sea by LC - APPI -MS/MS.**  
Pim de Voogt, University of Amsterdam, The Netherlands
- Nanoparticles: Are they emerging contaminants in drinking water (sources)?** Patrick Bäuerlein, KWR Watercycle Research Institute, The Netherlands
- Polyfluoroalkylphosphates (PAPs) and perfluorinated phosphonic acids (PFPA).**  
Sandra Huber, Norwegian Institute for Air Research, Norway
- Non-PBDE halogenated and non-halogenated flame retardants: Replacements following the track of the banned PBDEs through the global oceans toward the Polar Regions.**  
Axel Möller, Helmholtz-Zentrum Geesthacht, Germany
- Flame Retardants Hexabromobenzene, Pentabromotoluene and Pentabromoethylbenzene: Their Presence and Norway and Environmental Partitioning Properties.**  
Hans Peter H. Arp, Norwegian Geotechnical Institute (NGI), Norway

#### *Panel discussion: Next generation emerging contaminants.*

- 16:00 **UBA/Norman workshop announcement: Biocides and Monitoring Approaches.**  
Jan Koschorreck, UBA, Germany
- 16:10 Close of workshop

## Day 3 Social activity- down-hill or cross country skiing.

