



DIE AKADEMIE  
FRESENIUS

*Where experts meet!*

12<sup>th</sup> International Fresenius ECOTOX Conference

# AQUATIC AND TERRESTRIAL ECOTOXICOLOGY AND RISK MANAGEMENT

27 and 28 November 2012

Mainz (near Frankfurt)/Germany

## TOPICS:

### Product authorisation under 1107/2009/EC

- Zonal authorisation procedures: Southern and Northern Europe
- PBT assessment

### New findings and approaches in ecotoxicology

- Lower-tier aquatic effect assessment of insecticides
- Extrapolating experiment results between European climate zones
- Toxicokinetics-toxicodynamics models

### Developments in Environmental Risk Assessment (ERA)

- Use of mechanistic effects models
- ERA of pesticides and biocides
- Effects at realistic exposures, and weight of evidence
- Conservatism in risk assessment on soil macro-organisms

### Bee health

- EFSA Guidance Document on the risk assessment of plant protection products on bees
- Effects of neonicotinoids
- Time-dependent toxicity of pesticides
- Sub-lethal exposure to imidacloprid and honeybees colony collapse disorder

### Supporting risk assessment/management decisions

- Ecosystem services in assessment of environmental stressors
- Environmental monitoring of pesticides

New: Breakout Session on  
"Mixture Toxicity"  
on 26 November 2012 (optional)



## THE EXPERTS:

**Anne Alix** Dow AgroSciences | **Jos Boesten** Alterra / Wageningen University and Research Centre | **Theo C. M. Brook** Alterra / Wageningen University and Research Centre | **Mark A. Clook** CRD, UK Health and Safety Executive | **Michiel Daam** Technical University of Lisbon | **Peter Dohmen** BASF | **Gregor Ernst** Bayer CropScience | **Maike Habekost** BASF | **Udo Hommen** Fraunhofer IME | **Christine Kula** German Federal Office of Consumer Protection and Food Safety (BVL) | **Chensheng (Alex) Lu** Harvard School of Public Health | **Mark Miles** Dow AgroSciences | **Caroline Moermond** Dutch National Institute for Public Health and the Environment (RIVM) | **Siri Nesbakken** Norwegian Food Safety Authority (Mattilsynet) | **Véronique Poulsen** French Agency for Food, Environmental and Occupational Health & Safety (ANSES) | **Thomas G. Preuss** RWTH Aachen University | **Gordon Rennick** Irish Department of Agriculture, Food and the Marine | **Miguel João Santos** University of Aveiro | **Keith Solomon** University of Guelph | **Henk Tennekkes** ETS Nederland | **Helen Thompson** The Food and Environment Research Agency (FERA) | **Joke van Wensem** Dutch Soil Protection Technical Committee (TCB)

# THE PROGRAMME

## Monday, 26 November 2012

### 13.00 – 17.00 Breakout Session on „Mixture Toxicity“ (optional)

**Keith Solomon**, University of Guelph, Canada  
**Miguel João Santos**, University of Aveiro, Portugal  
(for more information see later in the brochure)

### 20.00 Get-Together



Will you arrive on Monday?  
Come to the hotel bar and meet other participants and speakers in a relaxed atmosphere.

## Tuesday, 27 November 2012

8.30 Registration & coffee

### 9.00 Welcoming speech by the organisers and the chairman

**Peter Dohmen**, BASF, Germany

## Product authorisation under 1107/2009/EC and other regulatory/legislative requirements

### 9.10 Southern Europe: zonal authorisation procedure

- Processes and specific requirements in the Southern zone
- Cooperation within the zone

**Véronique Poulsen**, Agency for Food, Environmental and Occupational Health & Safety (ANSES), France

### 9.40 Northern Europe: current state of the zonal authorization procedure Guidance Document

- Work-sharing in the Northern zone
- Development of the Guidance Document

**Siri Nesbakken**, Norwegian Food Safety Authority (Mattilsynet), Norway

### 10.10 PBT assessment: current state of debate and practice, and regulatory challenges

- Persistence, bioaccumulation and toxicity
- Comparison among frameworks (REACH, PPPs, biocides, pharmaceuticals)

**Caroline Moermond**, National Institute for Public Health and the Environment (RIVM), The Netherlands

### 10.40 Implementing Directive 2009/128/EC to achieve the sustainable use of pesticides, and implications for pesticide risk assessment

- Risk or use reduction
- Science based or arbitrary measures

**Gordon Rennick**, Department of Agriculture, Food and the Marine, Ireland

11.10 Panel discussion

11.30 Coffee break

## New findings and approaches in ecotoxicology

### 12.00 Implications of new EU requirements for the lower-tier aquatic effect assessment of insecticides

- Principles of the tiered approach in the aquatic risk assessment for PPPs
- Are *Daphnia magna*, *Americamysis bahia* and *Chironomus riparius* appropriate standard test species to assess the acute and chronic effects of insecticide exposure?

**Theo C. M. Brock**, Alterra / Wageningen University and Research Centre, The Netherlands

### 12.30 Extrapolating results of aquatic microcosm and mesocosm experiments between European climate zones

- Model ecosystems
- Spatial extrapolation

**Michiel Daam**, School of Agronomy (ISA), Technical University of Lisbon, Portugal

### 13.00 Toxicokinetics-toxicodynamics models: understand and predict dynamics of toxic effects

- Current status of toxicokinetics-toxicodynamics models, a scientific link between exposure and effects
- Understanding the dynamics of toxic effects and implications for ecotoxicology

**Thomas G. Preuss**, RWTH Aachen University, Germany

13.30 Panel discussion

13.45 Lunch break

## Developments in Environmental Risk Assessment (ERA)

### 15.00 Use of mechanistic effects models in environmental risk assessments of plant protection products

- Current status of ecological effect models in pesticide risk assessments
- Objectives and concept of the SETAC workshop MODELINK

**Udo Hommen**, Fraunhofer IME, Germany

### 15.30 ERA of pesticides and biocides: commonalities, differences, higher tier options

- Definition and uses
- Differences in the risk assessment

**Maike Habekost**, BASF, Germany

16.00 Panel discussion

16.15 Coffee break

#### 16.45 **Effects at realistic exposures, weight of evidence, and implications for environmental risk assessment**

- Relevance of effects to environmental concentrations at realistic exposures to risks from compounds used in the environment (e.g. PPPs)
- Weight of evidence process for assessing the relevance and the quality of toxicity studies and determining causality

**Keith Solomon**, University of Guelph, Canada

#### 17.15 **Conservatism in risk assessment on soil macro-organisms for plant protection products**

- Exposure of soil macro-organisms to PPPs
- Conservatism of Tier-1 risk assessment

**Gregor Ernst**, Bayer CropScience, Germany

17.45 Panel discussion

18.00 End of the first conference day

19.00 Departure time for the evening event



After the first conference day, Akademie Fresenius invites you to join a wine-tasting and leisurely dinner at a historic vineyard in the heart of the Rheingau region. Use this opportunity to deepen the contacts you made during the day.

## Wednesday, 28 November 2012

### Chairman:

**Mark A. Clook**, Chemicals Regulation Directorate (CRD), Health and Safety Executive (HSE), UK

## Bee health

#### 8.30 **Developing the EFSA Guidance Document on the risk assessment of plant protection products on bees (*Apis mellifera*, *Bombus* spp. and solitary bees)**

**Mark A. Clook**, Chemicals Regulation Directorate (CRD), Health and Safety Executive (HSE), UK  
**Jos Boesten**, Alterra / Wageningen University & Research Centre, The Netherlands

#### 9.15 **Update on the scientific debate related to bee health and implications for the Guidance Document on the risk assessment of plant protection products on bees**

- Update on bee health: recent reviews on bee health and feedback of monitoring
- Feedback on the scientific debate on bee health: why is it so difficult to agree on science?

**Mark Miles**, Dow AgroSciences, UK

9.45 Inter-session coffee break

#### 10.00 **Assessing the effects of pesticides on bumble bees in the field: recent studies with neonicotinoids**

- Taking differences between honeybees and bumble bees into account in field studies
- Approaches to assessing effects on bumble bee colonies
- Outline of results to date

**Helen Thompson**, The Food and Environment Research Agency (FERA), UK

#### 10.30 **Time-dependent toxicity of pesticides**

- Receptor binding
- Neonicotinoids

**Henk Tennekes**, ETS Nederland, The Netherlands

#### 11.00 **The association of sub-lethal exposure to imidacloprid and honeybees colony collapse disorder**

- Colony collapse disorder
- Imidacloprid

**Chensheng (Alex) Lu**, Harvard School of Public Health, USA

11.30 Panel discussion

12.00 Coffee break

## Supporting risk assessment/management decisions

#### 12.30 **Ecosystem services in assessment and management of environmental stressors**

- Ecosystem services concept
- Risk assessment

**Joke van Wensem**, Soil Protection Technical Committee (TCB), The Netherlands

#### 13.00 **Environmental monitoring of pesticides: development of guidance to perform and use monitoring in the regulatory context**

- Presentation of EMAG Pest working group activities
- From field studies to monitoring: objectives and implications

**Anne Alix**, Dow AgroSciences, UK

#### 13.30 **Clomazone herbicides: a challenge for adjusting risk management to current monitoring findings on bleaching in Germany**

- Properties and uses of the active substance clomazone
- Data on active and passive monitoring in Germany in the last decade

**Christine Kula**, Federal Office of Consumer Protection and Food Safety (BVL), Germany

14.00 Panel discussion

14.15 Concluding remarks by the chairman, end of conference and lunch buffet

# Breakout Session on „Mixture Toxicity” (optional)

Monday, 26 November 2012, 13.00 – 17.00

13.00 Lunch buffet

## 14.00 Problem formulation for risk assessment of combined exposures to chemicals and other stressors

- There is increasing concern about exposures to multiple stressors, chemical as well as non-chemical. The problem formulation becomes very important.
- A scheme is proposed for problem formulation that incorporates conceptual models for exposures and effects from multiple stressors.
- The process of problem formulation is illustrated for human health risk assessment.

Keith Solomon, University of Guelph, Canada

## Evaluation of pesticide mixtures to non-target organisms

- Consequences of the joint application of pesticides to non-target organisms
- Ecotoxicological evaluation of pesticide mixtures using single species tests and mesocosms experiments
- Interactions in pesticide mixtures (synergism, antagonism)

Miguel João Santos, University of Aveiro, Portugal

## YOU WILL MEET

### Groups that should take part:

Professionals working in the fields of

- Ecotoxicology
- Exposure and risk assessment
- Field studies
- Modelling
- Regulatory affairs, registration
- Scientific advisory
- Technical and environmental affairs
- Monitoring

### Sectors taking part:

- Agrochemical industry
- Research institutes
- Authorities (agricultural inspection offices, registration and control authorities)
- Environmental consultants
- Professional associations

## TRADE EXHIBITION

Our conference provides you with the opportunity of presenting your company in a trade display. Present your products and services and reach out to your specific target groups. We would be happy to provide you with information on all the various options available – from displaying product information to an exhibition stand – with no further obligation on your part.

Use the attached Fax Reply sheet to request our information material. Or simply call us. We would be more than pleased to assist you personally.

Tina Bayati  
Phone: +49 231 75896-73  
tbayati@akademie-fresenius.de

## THE ORGANISERS

AKADEMIE FRESENIUS is a joint venture of SGS Institut Fresenius and Cognos, one of the leading private educational institutes in Germany. Akademie Fresenius organises national and international conferences and congresses on current topics from the economic and scientific sectors for both specialists and the industry. You can find details on upcoming and new events at

[www.akademie-fresenius.com](http://www.akademie-fresenius.com)

SGS INSTITUT FRESENIUS is one of the main providers for non-medical laboratory analysis in Europe in the range of chemical, biological and physical analysis. Field studies with respect to the environmental behaviour e.g. residues and distribution in soil and potential impact of ground and surface water is addressed in specific studies as soil dissipation, field leaching, surface run-off, and groundwater monitoring.

[www.institut-fresenius.de](http://www.institut-fresenius.de)



If you have any **questions regarding the programme:**

Julia Pletz  
phone: +49 231 75896-81  
email: [jpletz@akademie-fresenius.de](mailto:jpletz@akademie-fresenius.de)



If you have any **questions regarding the organisation:**

Monika Stratmann  
Event Organisation  
phone: +49 231 75896-48  
email: [mstratmann@akademie-fresenius.de](mailto:mstratmann@akademie-fresenius.de)

# THE EXPERTS

## THE EXPERTS

**Anne Alix** is European Risk Management Leader at Dow AgroSciences. She has over ten years experience in risk assessment of PPP. Previously, she worked at the French Food Safety Agency and the French Ministry of Agriculture, Food, Fisheries, Rural Affairs and Spatial Planning.



**Jos Boesten** has been involved in research on pesticide fate in the environment since 1980. He has been a member of the EFSA PPR Panel since 2003. He is a Senior Scientific Researcher at Alterra.



**Theo C. M. Brock** is employed at Alterra to scientifically underpin the ecological risk assessment procedures for pesticides in surface waters. He chairs a Dutch working group that develops aquatic effect assessment schemes for pesticides.



**Mark A. Clook** works in the Environment Branch of the Chemicals Regulation Directorate (CRD) where he heads a team of regulatory ecotoxicologists. He has participated in many EU activities and contributed to the EFSA opinion on the science behind the GD on risk assessment for birds and mammals.



**Michiel Daam** has contributed to various studies of ecological risk assessment procedures, including the influence of model ecosystem set-up and climatic conditions on pesticide fate/effects. For this, he conducted several microcosm studies.



**Peter Dohmen** is Senior Ecotoxicologist at the Agricultural Research Center of BASF, Limburgerhof/Germany.



**Gregor Ernst** holds a PhD from University of Trier. He worked at BASF in the area of terrestrial ecotoxicology before joining Bayer CropScience in early 2012 where he focuses on risk assessments of non-target terrestrial invertebrates for PPPs.



**Maike Habekost's** PhD work was related to plant biodiversity. At BASF, she is responsible for the ecotoxicological assessment of plant protection products and biocides. Her main focus is on



the aquatic compartment.

**Udo Hommen** is ecotoxicologist by training at RWTH Aachen University and works at Fraunhofer IME as study director for mesocosm studies and consultant for ERA of chemicals. He is involved in the EU-funded project CREAM and the SETAC workshop MODELINK.



**Christine Kula** is a scientific officer at the Federal Office for Consumer Protection and Food Safety (BVL). She is responsible for risk management of plant protection products. She has been involved in ecotoxicological risk assessment/management with background in soil ecotoxicology.



**Chensheng (Alex) Lu** is Associate Professor in the Department of Environmental Health at Harvard School of Public Health, researching pesticide exposures and human/ecological health. He serves on the Scientific Advisory panel at U.S. EPA under FIFRA.



**Mark Miles** is the global lead scientist for bee, pollinator, non-target arthropods and soil ecotoxicology within Dow AgroSciences. He has expertise in higher tier risk assessments, participated in the SETAC Pellston on Pesticide Risk Assessment for Pollinators, and has been member of various bee protection working groups.



**Caroline Moermond** holds a PhD in environmental chemistry/ecotoxicology from Wageningen University. She is working as environmental risk assessor at RIVM mainly dealing with risk assessments of pharmaceuticals, and PBT-related issues.



**Siri Nesbakken** is working as an Ecotoxicologist at the Norwegian Food Safety Authority. She is also responsible for coordinating the work with pesticide evaluations at the zonal and European levels.



**Véronique Poulsen** is a senior ecotoxicologist. She heads the Ecotoxicology and Environmental fate Unit in the Regulated Products Department at ANSES. She has been involved in the risk assessment for several years, starting with chemicals and biocides at INERIS/BERPC.



**Thomas G. Preuss** research is on understanding and predicting effects from chemical stressors on different biological levels. Thomas is Assistant Professor at the Institute for Environmental Research at RWTH Aachen University.



**Gordon Rennick** has an arable farming and crop consultancy background and holds a Masters Degree in crop protection. He joined the Department of Agriculture, Food and the Marine in 1998. Since 2002 he has been involved in all aspects of the regulation of PPPs.



**Miguel João Santos's** research focusses on evaluating the consequences of pesticide application to non-target soil organisms. During his PhD in Biology, he studied the effects of pesticide mixtures. Currently, he is researching the ecosystem services provided by agricultural fields.



**Keith Solomon** is Professor Emeritus in the School of Environmental Sciences at the University of Guelph and Director of the Centre for Toxicology. He continues to teach and directs a research programme into the fate and effects of pesticides and other substances in the environment, humans exposure, and risk assessment.



**Henk Tennekes** is an independent toxicologist. As graduate of the Agricultural University of Wageningen in 1974, he did his PhD work at Shell Research, UK, before working at the German Cancer Research Centre, Heidelberg.



**Helen Thompson** gained her PhD from Reading University in 1988, and has worked for FERA since then. She has co-authored over 70 publications in terrestrial ecotoxicology and is secretary of the ICPBR Bees and Pesticides working group providing advice to EPPO on risk assessment.



**Joke van Wensem** is director of the Dutch Soil Protection Technical Committee, an advisory board related to soil related policy. At TCB she is involved in projects that aim at implementing the ecosystem services concept in environmental research, management and policies.



## REGISTRATION

### By web

www.akademie-fresenius.com/2068

### By mail

registration@akademie-fresenius.de

### By fax

+49 231 75896-53

 **Info-Hotline:**  
**+49 231 75896-50**



Die Akademie Fresenius GmbH  
Alter Hellweg 46, 44379 Dortmund,  
Germany

DIE AKADEMIE  
**FRESENIUS**

## PARTICIPATION

**Yes!** I would like to take part in the 12<sup>th</sup> International Fresenius ECOTOX Conference „**Aquatic and Terrestrial Ecotoxicology and Risk Management**“ in Mainz (near Frankfurt)/Germany.

- Breakout Session + Conference (26 to 28 Nov 2012): € 1,945 plus VAT  
 Conference only (27 to 28 Nov 2012): € 1,695 plus VAT  
 Breakout Session only (26 Nov 2012): € 350 plus VAT

**Yes!** I am a representative of an authority or a public university and therefore eligible for a reduced fee (please provide evidence). The reduced fee cannot be combined with other rebates.

- Breakout Session + Conference (26 to 28 Nov 2012): € 945 plus VAT  
 Conference only (27 to 28 Nov 2012): € 795 plus VAT  
 Breakout Session only (26 Nov 2012): € 200 plus VAT

I would like to take part in the **evening event** on **27 November 2012** (included in the above price).

- Yes  No

## CONFERENCE DOCUMENTATION

- No!** Unfortunately, I am unable to attend. Please send me the complete conference documentation for € 295.00 plus VAT (hard copy and electronic version).

## TRADE EXHIBITION

- Yes!** Please send me information on **exhibition possibilities** during the event.

## TERMS OF PARTICIPATION AND PURCHASE

The registration fee includes the **conference participation, conference documentation, lunch, coffee breaks, conference beverages** as well as the **evening event** on 27 November 2012. You will receive written confirmation of your registration. Upon receiving our invoice, please transfer the amount due without further deductions before the conference begins.

The price of the conference documentation includes a hard copy of the documentation as well as an access code to the secure Akademie Fresenius download area where you can download the complete conference documentation, including any subsequent updates, in electronic form – subject to the approval of the respective speakers. Both the documents and the secure access code will be dispatched around two weeks after the event and as soon as advance payment has been received.

## GROUP REDUCTIONS

For joint bookings received from one company we grant a **15% discount** from the third participant onwards.

## TERMS OF CANCELLATION

**Written cancellations or transfers will be accepted free of charge** up to four weeks prior to the start of the event. After this date and up to a week prior to the start of the event we will reimburse 50% of the registration fee. We cannot, unfortunately, provide refunds for later cancellations. **Please note that you can name a substitute free of charge at any time.**

## GENERAL TERMS AND CONDITIONS

By registering, you agree to our **General Terms and Conditions** as well as to our **Privacy Policy**. You can find our General Terms and Conditions on the internet ([www.akademie-fresenius.com/general-terms](http://www.akademie-fresenius.com/general-terms)) or receive them on request.

## PERSONAL DATA

Die Akademie Fresenius will keep your personal data for the purpose of organising this event. We will under no circumstances use your data for commercial trade purposes. In signing this form you consent to our occasionally contacting you by **mail, email, fax or phone (please strike through if unwanted)** in order to provide you with further information from our company. You can, of course, withdraw your consent whenever you wish. Further information can be found at: [www.akademie-fresenius.com/dataprotection](http://www.akademie-fresenius.com/dataprotection).

\_\_\_\_\_  
Your Account Number (if available):

\_\_\_\_\_  
Title / first name / name

\_\_\_\_\_  
Position

\_\_\_\_\_  
Department / Building

\_\_\_\_\_  
Phone / Fax

\_\_\_\_\_  
Email

\_\_\_\_\_  
Company (complete company name including legal form)

\_\_\_\_\_  
Street / number / P.O. Box

\_\_\_\_\_  
ZIP-code / city / country

\_\_\_\_\_  
Your order number / Cost unit (if required)

\_\_\_\_\_  
Your VAT ID No. (for registrations from EU countries except Germany)



\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Billing Address (only if different from the above address):

WEB

## VENUE/CONFERENCE HOTEL

### Atrium Hotel Mainz

Flugplatzstraße 44, 55126 Mainz, Germany  
phone: +49 6131 491-0, fax: +49 6131 491-128  
email: [info@atrium-mainz.de](mailto:info@atrium-mainz.de)  
web: [www.atrium-mainz.de](http://www.atrium-mainz.de)

We have reserved a **limited number of rooms** for our participants **at reduced rates** at the hotel. These rooms can be booked up to four weeks prior to the start of the event. Please book early and directly through the hotel quoting “**Fresenius**” as reference.