



ICCA-LRI & JRC WORKSHOP

Integrating New Advances in Exposure Science and Toxicity Testing: Next Steps

16-17 June 2010

Grand Hotel Bristol • Stresa, Italy

Workshop Co-chairs:

Annette Guiseppi-Elie, DuPont, USA

Maurice Whelan, European
Commission, Joint Research Centre,
Italy

PROGRAMME AT A GLANCE

Wednesday, 16 June

Thursday, 17 June

Wednesday, 16 June		Thursday, 17 June	
7.00	7.00 - 8.00: Registration	7.00 - 8.00: Registration	
8.00	8.00 - 10.00: Hosts' Welcome and Plenary Session I	8.00 - 10.15: Three Parallel Breakout Sessions	Exposure Science
9.00			Toxicity Testing
10.00			Communicating Scientific Information
10.00	10.00 - 10.30: Break	10.15 - 10.45: Morning Break	
11.00	10.30 - 13.00: Plenary Session II	10.45 - 12.00: Breakout Session Summaries	
12.00		12.00 - 13.00: Plenary Session III and Workshop Closing Remarks and Afternoon Programme	
13.00	13.00 - 14.00: Lunch	13.00 - 14.00: Lunch	
14.00	14.00 - 17.00: Three Parallel Breakout Sessions (Including Afternoon Break)	Exposure Science	14.00 - 17.00: Tour of Joint Research Centre
15.00		Toxicity Testing	
16.00		Communicating Scientific Information	
17.00	17.00 - 19.00: Reception and Poster Viewing		
18.00			
19.00	19.00: Group Dinner		

Registration

07.00 – 08.00 *Rhododendro Foyer*

Hosts' Welcome

08.00 – 08.15 *Sala Rododendro*

- Maurice Whelan, European Commission, Joint Research Centre, Italy
- Jan Mostowy, Bayer Corporation, USA

Plenary Session I: Integrating Science for Chemical Safety Assessment

08.15 – 10.00 *Sala Rododendro*

Session Chair: Annette Guiseppi-Elie, DuPont, USA

Workshop objectives and expected outcomes

- Annette Guiseppi-Elie, DuPont, USA

Risk assessment challenges concerning the European Union legislative framework

- Maurice Whelan, European Commission, Joint Research Centre, Italy

Integrating science for improved chemical safety assessments – myth or reality?

- Alan Boobis, Imperial College, UK

Risk communication's role in decision-making

- Caron Chess, Rutgers University, USA

Morning Break

10.00 – 10.30 *Winter Garden*

Plenary Session II: Setting the Stage for the Breakout Sessions

10.30 – 13.00 *Sala Rododendro*

Session Chair: Maurice Whelan, European Commission, Joint Research Centre, Italy

Emerging wild thoughts on exposure science for health management

- Matti Jantunen, National Public Health Institute's Department of Environmental Health, Finland

Emerging tools and techniques for screening applications and their potential to enable predictive toxicology

- Stefan Przyborski, RelInnervate, UK

Biological susceptibility and cellular elasticity

- David Epel, Stanford University, USA

A mechanistic re-definition of adverse effects – Linking in vitro toxicity testing results to risk assessment

- Mel Andersen, The Hamner Institutes for Health Sciences, USA

Integrated tools for next generation risk assessment – challenges and possibilities

- Bette Meek, Health Canada & University of Ottawa, Canada

Lunch

13.00 – 14.00

Restaurant

Breakout Session 1: Exposure Science

14.00 – 17.00

Sala Oleandro

(including a 30 minute **Afternoon Break**)

Session Chair: Elaine Cohen Hubal, Environmental Protection Agency, USA
Rapporteur: Corinna Weinz, Bayer AG, Germany
Recorder: Ami Parekh Gordon, ICF International, USA

Day 1 Theme: Chemical evaluation for public health decisions

ExpoCast™: Exposure science for prioritization and toxicity testing

- Elaine Cohen Hubal, Environmental Protection Agency, USA

Incorporating exposure information into ToxPI

- Sumit Gangwal, Environmental Protection Agency, USA

The German human biomonitoring effort and the EU project COPHES – Contributions for a harmonized European human biomonitoring

- Marike Kolossa-Gehring, Federal Environment Agency, Germany

Modelling consumer exposures to environmental chemicals

- Natalie von Götz, ETH Zurich, Switzerland

A chemical screening visualization tool and its application to product evaluation and commercialization

- Mario Chen, DuPont, USA

New trends in green engineering

- Juan García Serna, University of Valladolid, Spain

Breakout Session 2: Toxicity Testing (session continued on following page)

14.00 – 17.00

Sala Rododendro

(including a 30 minute **Afternoon Break**)

Session Chair: Tim Gant, University of Leicester, UK
Rapporteur: Grace Patlewicz, DuPont, USA
Recorder: Alexis Castrovinci, ICF International, USA

Innovative approaches to generating, integrating, and interpreting hazard data

- Tim Gant, University of Leicester, UK

Day 1 Theme: Emerging models for human-based toxicity testing

New scanning microscope technique for functional characterization, manipulation, and monitoring of living stem cells

- Julia Gorelik, Imperial College, UK

Human embryonic stem cell derived hepatocytes in toxicity and ADME

- Claudia McGinnis, Roche (Basel), Switzerland

Stem cell-derived hepatocytes and their use in toxicology

- Christiane Guillouzo, Université de Rennes, France

Breakout Session 2: Toxicity Testing (continued from previous page)

- 14.00 – 17.00** **The effect of chemicals on the tissue-specific homing of T cells**
- Makoto Iwata, Tokushima Bunri University, Japan
- (including a 30 minute **Afternoon Break**) **Human embryonic stem cell derived assays for chemical risk assessment**
- Mia Emgård, Cellartis, Sweden

Breakout Session 3: Communicating Scientific Information

- 14.00 – 17.00** *Sala Dalia/Gardenia*
- (including a 30 minute **Afternoon Break**)
- Session Chair:** Lynn Frewer, Wageningen University, The Netherlands
Rapporteur: Melanie Bausen, BASF – The Chemical Company, Germany
Recorder: Kim Osborn, ICF International, USA
- Day 1 Theme: Addressing the nodes of disconnect**
- Introduction to Social Impact Assessment (SIA): Integrating economic and social sciences into decision making**
- Lynn Frewer, Wageningen University, The Netherlands
- Can science communication be fixed?**
- Donald Braman, George Washington University Law School, USA
- A value-of-information approach to sequential testing**
- Silke Gabbert, Wageningen University, The Netherlands
- A value-of-information approach to risk-benefit analyses**
- Richard B. Belzer, Regulatory Checkbook, USA
- Industry perspective on what information decision makers need to evaluate chemicals**
- Melanie Bausen, BASF – The Chemical Company, Germany
- The activities of the U.S. National Library of Medicine to collect, organize, preserve, and disseminate current and emerging information in toxicology, exposure science, risk assessment, and risk management**
- Pertti Hakkinen, U.S. National Institutes of Health, National Library of Medicine, USA

Reception and Poster Viewing

17.00 – 19.00 *Winter Garden*

Group Dinner

19.00 *Restaurant*

Registration

07.00 – 08.00

Rhododendro Foyer

Breakout Session 1: Exposure Science

08.00 – 10.15

Sala Oleandro

Session Chair: Elaine Cohen Hubal, Environmental Protection Agency, USA

Rapporteur: Corinna Weinz, Bayer AG, Germany

Recorder: Ami Parekh Gordon, ICF International, USA

Day 2 Theme: Integrating exposure and health sciences for better decisions

Use of 'omics' for characterizing exposure for the Exposome

- Martyn Smith, University of California, Berkeley, USA

High-throughput clinical metabolomic analyses of nutritional and environmental factors in human health and disease

- Dean Jones, Emory University, USA

Advancing metabolomic techniques for assessing environmental effects on human health

- Toby Athersuch, Imperial College, London, UK

Exploring the potential of 'omics' technologies in population studies: The EnviroGenomarkers project

- Soterios Kyrtopoulos, National Hellenic Research Foundation, Institute of Biological Research and Biotechnology, Greece

Discussion and Collective Perspectives

Discussion Lead: Peter Boogaard, Shell, The Netherlands

Breakout Session 2: Toxicity Testing (session continued on following page)

08.00 – 10.15

Sala Rododendro

Session Chair: Tim Gant, University of Leicester, UK

Rapporteur: Grace Patlewicz, DuPont, USA

Recorder: Alexis Castrovinci, ICF International, USA

Day 2 Theme: Computational and integrative methods for predictive toxicology

Prediction in the face of uncertainty: A Monte Carlo strategy for systems biology of cancer treatment

- Christoph Wierling, Max Plank Institute for Molecular Genetics, Germany

Metabolomic applications for mechanistic exploration of inter-individual variability in toxic response

- Muireann Coen, Imperial College, UK

Computational methods for supporting regulatory decision making

- Andrew Worth, European Commission, Joint Research Centre, Italy

Endocrine disrupter and threshold effect : A case study

- David Rouquié, Bayer Crop Science, France

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Breakout Session 2: Toxicity Testing (contined from previous page)

08.00 – 10.15 **Computational biology: The (Q)SAR perspective**

- Grace Patlewicz, DuPont, USA

Discussion and Collective Perspectives

Discussion Lead: Tim Gant, University of Leicester, UK

Breakout Session 3: Communicating Scientific Information

08.00 – 10.15 *Sala Dalia/Gardenia*

Session Chair: Lynn Frewer, Wageningen University, The Netherlands

Rapporteur: Melanie Bausen, BASF – The Chemical Company, Germany

Recorder: Kim Osborn, ICF International, USA

Day 2 Theme: Developing a framework for research: How scientific information exchange can better meet the needs of society

Deliberate stakeholder engagement

- Richard Shepherd, University of Surrey, UK

Stakeholder dialogues

- Madeleine Laffont, CEFIC aisbl (European Chemical Industry Council), Belgium

Review of existing methodologies and identification of research needs regarding communication

- Arnout Fischer, Wageningen University, The Netherlands

Discussion and Gap Analysis

Discussion Lead: Lynn Frewer, Wageningen University, The Netherlands

Morning Break

10.15 – 10.45 *Rododendro Foyer*

Breakout Session Summaries

10.45 – 12.00 *Sala Rododendro*

Session Chair: Richard D. Phillips, ExxonMobil, Belgium

Presentations

- **Exposure Science:** Corinna Weinz, Bayer AG, Germany
- **Toxicity Testing:** Grace Patlewicz, DuPont, USA
- **Communicating Scientific Information:** Melanie Bausen, BASF – The Chemical Company, Germany

Thursday, 17 June 2010

Plenary Session III: Actualizing Innovation

12.00 – 12.50

Sala Rododendro

Session Chair: Herman Autrup, University of Aarhus, Denmark

Computational chemistry and chemical informatics to develop and manage chemical information

- Jonathan Goodman, University of Cambridge, UK

Creating a comprehensive exposure narrative

- Tom McKone, University of California, Berkeley, USA

Workshop Closing Remarks and Afternoon Programme

12.50 – 13.00

Sala Rododendro

- Maurice Whelan, European Commission, Joint Research Centre, Italy

Lunch

13.00 – 14.00

Rododendro Foyer

Tour of Joint Research Centre (JRC)

13.00 – 17.00

Joint Research Centre, Ispra, Italy

Thursday, 17 June 2010