Chemical mixtures: challenges for research and risk assessment

CONFERENCE

Maison de la RATP - Espace du Centenaire
189, rue de Bercy
75012 Paris

Under the high patronage of the French Ministry for Social Affairs and Health, the French Ministry of Ecology, Sustainable Development and Energy and the French Ministry for Higher Education and Research
Chemical mixtures: challenges for research and risk assessment

8:30 Registration

9:00 OPENING
Marc MORTUREUX, Director General, ANSES, France

9:15 STATE OF THE ART ON CHEMICAL MIXTURES RESEARCH
Sibylle ERMLER, PhD – Brunel University, United-Kingdom

10:00 SESSION 1 – HOW FAR ARE WE IN RESEARCH ON EXPOSURES?
Moderators: Annette PETERSEN - National Food Institute/DTU, Denmark & Gérard LASFARGUES - ANSES, France

The Exposome: a new concept to support research on causes and prevention
Dr. Christopher P. WILD – International Agency for Research on Cancer (IARC), France

The ACROPOLIS project in summary
Jacob VAN KLAVEREN – National Institute for Public Health and the Environment (RIVM), The Nederlands

11:00 Coffee break

11:30 Identifying mixtures from combined exposure as a first step towards hazard characterization
Amélie CREPET, PhD – French Agency for Food, Environmental and Occupational Health & Safety (ANSES), France

Development of methodologies to be used for assessing exposure to multiple pesticides
Hermine REICH – European Food Safety Authority (EFSA), Italy

12:30 Free time for lunch
14:00  **SESSION 2 – HOW FAR ARE WE IN RESEARCH ON TOXICOLOGY?**

*Moderators: Dr. Lars NIEMANN - BfR, Germany & Christine NELLEMAN - National Food Institute/DTU, Denmark*

**Analysis of mixture effects of (tri)azole fungicides in a broad dose range *ex vivo and in vitro* with special focus on liver**
Tanja HEISE, PhD – BfR, Germany

**A concentration addition model to assess activation of the pregnane-X receptor (PXR) by pesticide mixtures found in the French diet**
Dr. Roger RAHMANI – Toxalim (Research Centre in Food Toxicology), French National Institute for Agricultural Research (INRA), UMR 1331, France

**Mixture effects of endocrine disrupters – severe and predictable**
Ulla HASS, professor, PhD – National Food Institute/DTU, Denmark

**15:30  Coffee break**

**15:50**  **Exposure to pesticide alone or in combination: biomarkers and effects *in vivo and in vitro* approaches**
Laurence GAMET-PAYRASTRE, PhD – Toxalim (Research Centre in Food Toxicology), UMR 1331 Inra/INP/UPS, France

**Mixture effects at relevant human exposure levels?**
Professor Anne-Marie VINGAARD – National Food Institute/DTU, Denmark

**17:20  CLOSING**
Patricia BLANC, Director General, Delegate for major risks, General Directorate for Risk Prevention, representing M. Philippe MARTIN, French minister of Ecology, Sustainable Development and Energy
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8:30  Registration

8:50  WELCOME
Christine Lydia NELLEMANN, National Food Institute/DTU, Denmark

9:00  MIXTURES RESEARCH AT THE NATIONAL INSTITUTE OF ENVIRONMENT HEALTH SCIENCES
Cynthia RIDER, PhD – National Institute of Environmental Health Sciences (NIEHS), USA

9:45  SESSION 3 – RISK ASSESSMENT: CASE STUDIES AND METHODOLOGIES
Moderators: Professor, Dr. Gilbert SCHÖNFE LDER - BfR, Germany & Jean-Nicolas ORMSBY - ANSES, France

Grouping of pesticide active substances for cumulative risk assessment
Nathalie PRINTEMPS – French Agency for Food, Environmental and Occupational Health & Safety (ANSES), France

Cumulative Mixtures Risk Assessment: why simple formulas can work
Richard HERTZBERG, PhD – Emory University, USA

10:50  Coffee break

11:15  Effect directed analysis (EDA) case study applied to endocrine disrupter identification in a river impacted by industrial discharge
Hélène BUDZINSKI, PhD – University of Bordeaux, France

Cumulative risk assessment of 4 phthalates – A Danish experience
Rikke Doncil HOLMBERG – Environmental Protection Agency (EPA), Denmark

Case study application of the WHO framework for combined exposures
Bette MEEK, PhD – University of Ottawa, Canada

12:45  Free time for lunch
MIXTURES AND WAYS OF REGULATING CHEMICALS IN THE 20TH AND 21ST CENTURIES
Nathalie JAS, PhD – French National Institute for Agricultural Research (INRA), RiTME, France

ROUND TABLE: HOW TO ADDRESS CHEMICAL MIXTURES IN RISK ASSESSMENT? WHAT ARE THE CHALLENGES?
Facilitator: Stefan SCHEUER, Environmental & Energy Policies EU affairs Consultant
Timothy BOWMER, PhD – European Chemicals Agency (ECHA), Finland
Tony MUSU, PhD – European Trade Union Institute (ETUI), Belgium
Bernadette OSSENDORP, PhD – National Institute for Public Health and the Environment (RIVM), Netherlands
Cynthia RIDER, PhD – National Institute of Environmental Health Sciences (NIEHS), USA
Professor Gilbert SCHÖNFELDER – Bundesinstitut für Risikobewertung (BfR), Germany
Lisette VAN VLIEET, PhD – Health and Environment Alliance (HEAL), Belgium
Marco VIGHI – DG Sanco scientific committees recommendations on cumulative assessment, Milano University, Italy

CLOSING REMARKS
Gérard LASFARGUES, Deputy Director General for Scientific Affairs, ANSES, France
Humans are exposed to multiple substances in their surrounding environment including food, water, air, soil and consumer goods. In the last decades the possible effects of chemical mixtures on humans and on the environment have become a major concern in many countries across the world. This is why scientific experts and risk managers are increasingly addressing this challenge both in supporting research programmes and developing new methodologies to assess risks.

In this context ANSES, National Food Institute/DTU and BfR have decided to convene this conference on the state of the art on chemical mixtures bringing together researchers and scientists from European and cross Atlantic agencies to stimulate international exchange of practices and research knowledge.