



Advancing Exposure Science in Europe – today's results for a safer future

International Society of Exposure Science – Europe Chapter Workshop

19–21 March 2024, Berlin



Programme appendix

Parallel sessions – oral presentations

Wednesday, 20 March 2024

11:30–12:30

O1: Advances in exposure modelling I

Room: Lecture theatre

Evaluation of the ConsExpo Exposure to vapour – evaporation model

Sebastiaan L. Zoutendijk

National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

Functional requirements to develop a new risk assessment tool:

the first step – a new inhalation model to assess the exposure to bioaerosols

Carlota Alejandre Colomo

Stoffenmanager® - Cosanta B.V., Amstelveen, NL

The new ECETOC TRA worker tool 3.2: utilising workplace measurements to evaluate and improve exposure predictions of the screening tool

Joost G.M. van Rooij

Caesar Consult, Chemrade Software B.V., Nijmegen, NL

Generic quantitative models for prediction of occupational exposure to respirable dust and respirable quartz within the formulating, metal manufacturing and construction industries

Hicham Zilaout

Stoffenmanager® - Cosanta B.V., Amstelveen, NL

O2: New developments for mixture exposure assessment

Room: D146

Exposure assessment of PFAS mixtures present in human biomonitoring data

Bas Bokkers

National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

OECD Activities using relevant effect biomarkers and AOPs for assessing known and unknown mixture risks

Radu Corneliu Duca

National Health Laboratory (LNS), Dudelange, LU

O3: Progress in data generation for refined exposure assessments – Pesticides

Room: D145

Robust regulatory tools for European non-dietary risk assessment: plant protection industry's data collection initiative

Neil Morgan

Syngenta Ltd, Jealott's Hill International Research Centre, Bracknell, UK

How can exposure assessment for pesticides in epidemiological studies be improved? Insights from the IMPRESS project

Karen S. Galea

Institute of Occupational Medicine (IOM), Edinburgh, UK

DermExpoDB – a database to share occupational dermal data

Jessica Meyer

Federal Institute for Occupational Safety and Health (BAuA), Dortmund, DE

Wednesday, 20 March 2024

16:30–17:30

O4: Advances in exposure modelling II

Room: Lecture theatre

New hand-held operator exposure model for agricultural and non-agricultural scenarios

Sabine Martin

German Federal Institute for Risk Assessment (BfR), Berlin, DE

ICPPE risk assessment & mitigation tool:

facilitating pesticide risk evaluation for operators using hand-held spray equipment

Christian Küster

Bayer AG, Monheim, DE

Protection by ordinary light clothing against pesticide spray drift for bystanders and residents

Edgars Felkers

Bayer AG, Monheim, DE

Advances in modelling of inhalation exposure for droplet and foam spraying applications

Stefan Hahn

Fraunhofer Institute for Toxicology and Experimental Medicine (ITEM), Hannover, DE

O5: Progress in data generation for refined exposure assessments – food and dietary exposure

Room: D146

What's in our food: first results of the BfR MEAL Study

Irmela Sarvan

German Federal Institute for Risk Assessment (BfR), Berlin, DE

The contribution of air to risks and transfers associated with PAH in urban agriculture: calculation of new bioconcentration factors in edible plants

Karen Perronnet

French National Institute for Industrial Environment and Risks (Ineris), Verneuil-en-Halatte, FR

Consumer exposure to pesticide residues from food – an exploratory study of duplicate food portions (DFP) intake and urinary metabolite excretion

Nina Wieland

Radboud University, Nijmegen, NL

Probabilistic dietary exposure assessment of the Italian population to 3-monochloropropane-1,2-diol, 2-monochloropropane-1,3-diol and glycidol

Simone Stefano

Istituto di Ricerche Farmacologiche Mario Negri, Milan, IT

O6: Other exposure related topics

Room: D145

A pilot study on low-carbon intervention among motorcycle commuters in Taipei

Man-Ni Wang

National Taiwan University, Taipeh, TW

**Exploring the landscape of 5G NR EMF exposure sensing technologies:
a narrative review**

Erdal Korkmaz

The Hague University of Applied Sciences, The Haag, NL

**Establishing a framework for exposure science certification: enhancing
professional competencies and strengthening exposure science identity**

Gerald Bachler

DuPont de Nemours (Belgium) B.V., Mechelen, BE

**Wearables for occupational exposure monitoring: the role of EU occupational
health and safety legislation**

Stefania Marassi

The Hague University of Applied Sciences, Delft, NL

and

Leiden University, Leiden, NL

Wednesday, 20 March 2024

17:30–18:30

O7: Advances in exposure modelling III

Room: Lecture theatre

**Systematic review and meta-analyses on the relevance of occupational oral
exposure**

Marlene Dietz

Federal Institute for Occupational Safety and Health (BAuA), Dortmund, DE

and

University of Wuppertal, Wuppertal, DE

**Exposure to pyrethroids of French children from the ELFE cohort: using physiology-
based pharmacokinetic modeling (PBPK) in a refined risk assessment approach**

Ophélie Gestin

French National Institute for Industrial Environment and Risks (Ineris),

Verneuil-en-Halatte, FR

O8: Human biomonitoring I – Data generation

Room: D146

**Development of a human biomonitoring method for assessing the exposure to
2,4,7,9-Tetramethyl-5-decyne-4,7-diol (TMDD) in the general population**

Carmen Tiwald

Analytisch-Biologisches Forschungslabor (ABF) GmbH, Planegg, DE

**Development of an indexed score to identify the most suitable biological
material to assess SARS-CoV-2**

Marina Almeida-Silva

Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT

and

OSEAN-Outermost Regions Sustainable Ecosystem for Entrepreneurship and
Innovation, Funchal, PT

**Identification of use-specific hemoglobin adduct patterns for different
tobacco/nicotine product user groups by non-targeted GC-MS/MS analysis**

Max Scherer

Analytisch-Biologisches Forschungslabor (ABF) GmbH, Planegg, DE

Detection of the reprotoxic metabolite mono-n-hexyl phthalate (MnHexP) in urine of young children: data from the KITA-study NRW Germany

Yvonne Chovolou

North Rhine-Westphalia Office for Nature, Environment and Consumer Protection,
Recklinghausen, DE

O9: Exposure at school and public spaces

Room: D145

Airborne virus exposure mitigation by advancing respiratory protective equipment testing with a fluorescent tracer

Kirsten Lassing

Radboud University Medical Center, Nijmegen, NL

and

Radboud University, Nijmegen, NL

One Health approach in “Do It Yourself” stores to tackle fungal contamination

Marta Dias

Universidade NOVA de Lisboa, Lisbon, PT

and

Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT

First insights of Portuguese primary schools’ fungal assessment – is indoor air quality complying with Portuguese legal framework?

Pedro Pena

Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT

and

Universidade NOVA de Lisboa, Lisbon, PT

Assessing the impact of climate change on indoor fungal contamination in Lisbon metropolitan area primary schools: a comprehensive study

Renata Cervantes

Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT

and

Universidade NOVA de Lisboa, Lisbon, PT

Thursday, 21 March 2024

09:30–10:30

O10: Workplace exposure

Room: Lecture theatre

From generic REACH information to concrete protective measures at the workplace

Melanie Berghaus

Federal Institute for Occupational Safety and Health (BAuA), Dortmund, DE

Advancing agricultural safety: comprehensive analysis of closed transfer systems in reducing operator and environmental exposure in Europe

Juan Sasturain

BASF SE, Limburgerhof, DE

Occupational inhalation exposure during surface disinfection – exposure assessment based on exposure models compared with measurement data

Lea Anhäuser

German Social Accident Insurance Institution for the Health and Welfare Services (BGW), Cologne, DE

**Operator safety –
assessing operator exposure during drone application of pesticides**

Maxie Kohler
Bayer AG, Monheim, DE

O11: Human biomonitoring II – Data generation

Room: D146

Regulatory implementation of mixture risk assessment using human biomonitoring data

Jacob van Klaveren
National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

**Paradigm shift in chemical risk assessment:
NAMs and the changing landscape of exposure data collection**

Nancy B. Hopf
University of Lausanne, Lausanne, CH

Minimum information requirements for human biomonitoring (HBM) in environmental health studies

Maryam Zare Jeddi
Health intelligence consulting, Utrecht, NL
and
ISES Europe, Riethoven, NL

**Towards FAIR human biomonitoring (HBM) data:
development of a tool to enhance HBM data harmonisation**

Ruben Peeters
VITO Health, Flemish Institute for Technological Research (VITO), Mol, BE

O12: Steps forward to reach informed aggregated exposure assessments

Room: D145

Aggregate exposure assessment for PFAS using environmental data and human biomonitoring

Arno Vanderbeke
VITO Health, Flemish Institute for Technological Research (VITO), Mol, BE

Aggregate consumer exposure assessment – enhancements of the PACEM tool

Christiaan Delmaar
National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

**Dietary and non-dietary external exposure versus aggregated internal exposure:
results from the SPRINT project**

Daniel Figueiredo
Utrecht University, Utrecht, NL

Aggregate exposure to parabens in personal care products and toys

Femke Affourtit
National Institute for Public Health and the Environment (RIVM), Bilthoven, NL

Parallel sessions – poster presentations

Wednesday, 20 March 2024

10:00–11:00

P1: Food and dietary exposure and other exposure related topics

A reference library for suspect screening of environmental toxicants using nontargeted ion mobility spectrometry-mass spectrometry analyses

Devin Teri

Texas A&M University, Texas, US

Naturally occurring radionuclides in food: participation in Germany's first total diet study (BfR MEAL Study)

Michaela Achatz

Bundesamt für Strahlenschutz (BfS), Berlin, DE

Results of the first German total diet study – levels of acrylamide in typically consumed foods

Sara Perestrelo

German Federal Institute for Risk Assessment (BfR), Berlin, DE

Climate change impact on chemicals and toxins exposure

Susana Viegas

Universidade NOVA de Lisboa, Lisbon, PT

and

Comprehensive Health Research Center (CHRC), Lisbon, PT

P2: Innovative technologies and monitoring

How to get away with monitoring: lessons learned from conceptualisation and construction of a low-cost device for monitoring particulate matter

Giacomo Fanti

University of Insubria, Como, IT

Human and farm animal exposure to pesticides – silicone wristbands to study non-dietary routes of exposure

Daniel Figueiredo

Utrecht University, Utrecht, NL

Establishing and sustaining a real-time indoor sensing network to evaluate indoor air pollutant exposure in Dublin, Ireland's school pilots programme

Jiayao Chen

University College Dublin, Dublin, IE

Watch the power! Monitoring of magnetic fields from high-voltage power lines.

Kenneth Deprez

Ghent University / IMEC-WAVES, Ghent, BE

P3: Workplace, public spaces, airborne exposure

Exposure assessment to air pollutants: a WFH (working from home) case study

Francesca Borghi

University of Bologna, Bologna, IT

and

University of Insubria, Como, IT

Assessing microbial contamination and particulate matter exposure in Portuguese poultry facilities

Bianca Gomes
Universidade de Lisboa, Lisbon, PT
and
Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT

Identifying the gaps regarding exposure to aeroallergens in schools: systematic review

Carla Viegas
Escola Superior de Tecnologia e Saúde (ESTeSL), Lisbon, PT
and
Universidade NOVA de Lisboa, Lisbon, PT

Efficiency of personal protective equipment in reducing operator exposure to pesticides

Christian Küster
Bayer AG, Monheim, DE

Exposing students to particulate matter sensors

Derek Land
The Hague University of Applied Sciences, Delft, NL

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13:30–14:30

P4: Food and dietary exposure

Triazole derivative metabolites in the BfR MEAL Study: occurrence in plant-based foods and dietary exposure estimation

Anna Jäger
German Federal Institute for Risk Assessment (BfR), Berlin, DE

FoodMagnifier App – contaminants & nutrients in food

Anna Elena Kolbaum
German Federal Institute for Risk Assessment (BfR), Berlin, DE

An overview of exposure assessment at Food Standards Agency

Emma French
Food Standards Agency, London, UK

Exposure assessment for dioxin and dioxin-like PCBs in Germany based on the BfR MEAL Study

Katrin Blume
German Federal Institute for Risk Assessment (BfR), Berlin, DE

P5: Advances in exposure modelling I

Establishing a Go-To Hub: the development of a repository of guidance and standard documents in support of good modelling practice in exposure science

Gerald Bachler
DuPont de Nemours (Belgium) B.V., Mechelen, BE

Evaluation of Korean workers' exposure characteristics to lead: comparison of MEASE estimates with exposure measurements

Dohee Lee
Korea Occupational Safety and Health Agency (KOSHA), Ulsan, KR

Reflection on the landscape of education in the area of exposure modelling

Karen S. Galea
Institute of Occupational Medicine (IOM), Edinburgh, UK

Deriving dermal absorption default values for use in global operator exposure models for agricultural and non-agricultural scenarios

Neil Morgan

Syngenta Ltd, Jealott's Hill International Research Centre, Bracknell, UK

Innovative design of a tired approach through ranking of different workplace exposure models

Raffaella Papagna

Federal Institute for Occupational Safety and Health (BAuA), Dortmund, DE

Shiny risk – a web application for transparent stochastic quantitative risk and exposure modeling

Robert Opitz

German Federal Institute for Risk Assessment (BfR), Berlin, DE

Wednesday, 20 March 2024

15:00–16:00

P6: Progress in data generation for refined exposure assessments

Consumer behaviour survey on the use of adhesives (universal glue and wall-paper glue)

Adrian Cieszynski

German Federal Institute for Risk Assessment (BfR), Berlin, DE

How to measure dermal hand exposure in occupational exposure studies? – New methodology to assess applicability of hand-wash method and cotton gloves

Christiane Wiemann

BASF Oesterreich GmbH, Vienna, AT

Characterising exposures to neonicotinoid insecticides in Ireland

Darragh M. Doherty

University College Dublin, Dublin, IE

Exposure of consumers in Germany to Do-It-Yourself and crafting products with intended skin contact

Eva Rogasch

German Federal Institute for Risk Assessment (BfR), Berlin, DE

The application of the mobile application for the assessment of cleaning workers' exposure to cleaning products: a pilot study

Sewon Lee

University of Manchester, Manchester, UK

P7: Advances in exposure modelling II and new developments for mixture exposure assessment

Handling of left- and interval-censored arsenic data from BfR MEAL study for dietary exposure assessment

Annett Martin

German Federal Institute for Risk Assessment (BfR), Berlin, DE

Children are exposed to multiple sweeteners in non-alcoholic soft drinks

Christian Jung

German Federal Institute for Risk Assessment (BfR), Berlin, DE

ImproRisk model as an open access risk assessment tool

Demetris Kafouris

Ministry of Health, Nicosia, CY

A comparison between field measurements of vapour concentrations of plant protection products and predictions by the BROWSE model

Edgars Felkers

Bayer AG, Monheim, DE

Fruit and vegetable intake plays a key role in pesticide exposure of Latvian citizens

Lasma Akulova

Rīga Stradiņš University, Rīga, LV

Plume modelling of outgassing from fumigated cargo

Anna Gierak

German Federal Institute for Risk Assessment (BfR), Berlin, DE
