

## Programme

Wednesday 8 April	
8:30	<b>Registration and coffee</b>
10:00	<b>Opening session</b> <b>Stéphane Pimbert</b> , INRS Director General <b>Didier Baptiste</b> , INRS Scientific Director <b>Davy Rousset</b> , Laboratory Chief, Pollutants Metrology Division, INRS
10:30	Keynote speaker: <b>Marc Baril</b> , Montreal University, School of public health, Montreal, CA <i>Toxicology from a different point of view</i>
11:15	Keynote speaker: <b>David Vernez</b> , Institute for work and health (IST), Lausanne, CH <i>Scope and limits of IT models in chemical risk assessment</i>
12:00	<b>Lunch</b>
<b>Session 1: RISK ASSESSMENT, EXPOSURE SCENARIOS &amp; MODELLING</b> Chairpersons: <b>David Vernez</b> , IST, Lausanne, CH & <b>Dorothea Koppisch</b> , IFA, Sankt-Augustin, DE	
13:20	Keynote speaker: <b>Daniel Drolet</b> , American Industrial Hygiene Association (AIHA), Montreal, CA <i>Panorama of existing and upcoming tools to improve the identification and management of chemical risk</i>
14:00	<i>General rules for a unified hazard banding in accordance with the new European chemistry regulation</i> <b>M. Arnone</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE
14:20	<i>SEIRICH: a computer-based information and support tool for chemical risk assessment in the work environment</i> <b>R. Vincent</b> et al., INRS, Vandœuvre-lès-Nancy, FR
14:40	<i>Stoffenmanager® Implementation Evolutionary Ladder</i> <b>K.J.M. Verbist</b> et al., Cosanta (previously Arbo Unie), Amstelveen, NL
15:00	<i>Application of standardized air monitoring measurements at simulated workplaces - requirements and benefits</i> <b>C. Emmel</b> et al., German Social Accident Insurance Institution for building trade, Munich, DE
15:20	<b>Coffee break</b>

## Session 1: RISK ASSESSMENT, EXPOSURE SCENARIOS & MODELLING

Chairpersons: **David Vernez**, IST, Lausanne, CH & **Dorothea Koppisch**, IFA, Sankt-Augustin, DE

15:50	<i>Assessment of toxic risks during the use of weapons systems</i> <b>C. Maisonneuve</b> et al., Direction Générale de l'Armement (DGA), Bagneux, FR
16:10	<i>Modelling exposure to hazardous substances: how conservative is conservative enough?</i> <b>D. Koppisch</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE
16:30	<i>An evaluation of the validity and reliability of the Tier 1 exposure assessment tools used under REACH</i> <b>M. Van Tongeren</b> et al., Institute of Occupational Medicine (IOM), Edinburgh, UK
16:50	<i>"TREMOMO" Tool: a new tool to support user of occupational exposure models</i> <b>N. Savic</b> et al., Institute for work and health (IST), Lausanne, CH
17:10	<i>Assessment of chemical risk: simplified implementation of physical modelling</i> <b>F. Ezanno</b> et al., GLASSOLUTIONS France, Courbevoie, FR
17:30	<i>Scale-Up of oxygen Carrier for Chemical-looping combustion using Environmentally Sustainable materials (SUCCESS) – Occupational exposure assessment</i> <b>L. Geerts</b> et al., VITO – Institute for Technological Research, Mol, BE
18:15	<b>Poster Session &amp; Exhibition of INRS tools and products</b> <b>Icebreaker party</b>
20:00	<b>End of the day</b>

## Thursday 9 April

8:00	<b>Registration</b>
<b>Session 2: AIR AND BIO- MONITORING</b> Chairpersons: <b>Kevin Ashley</b> , NIOSH, Cincinnati, USA & <b>Florence Pillière</b> , INRS, Paris, FR	
8:30	Keynote speaker: <b>Yngvar Thomassen</b> , National Institute of Occupational Health (NIOH), Oslo, NO <i>Innovative and analytical approaches in exposomic for chemical and morphological characterisation of work-room aerosols metrology</i>
9:10	<i>New NIOSH sampling and analytical methods for occupational exposure assessment</i> <b>K. Ashley</b> , National Institute for Occupational Safety and Health (NIOSH), Cincinnati, USA

9:30	<p><i>Appropriate evaluation of 4,4' methylene diphenyl diisocyanate (4,4'-MDI) aerosols using a CIP10 individual dust sampler</i></p> <p><b>S. Gagné</b> et al., Institut de recherche Robert-Sauvé en santé et sécurité au travail (IRSST), Montreal, CA</p>
9:50	<p><i>Feed, food ... and then workers' safety: innovative analytical tools for the measurement of mycotoxins</i></p> <p><b>D. Jargot</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
10:10	<p><i>Beryllium exposure assessment: review of sampling and analytical developments and impending U.S. regulatory changes</i></p> <p><b>M. Brisson</b> et al., Savannah River National Laboratory, Aiken, USA</p>
10:30	<b>Coffee break</b>
11:00	<p><i>Occupational exposure to bisphenol A in Finland</i></p> <p><b>S.P. Porras</b>, Finnish Institute of Occupational Health (FIOH), Helsinki, FI</p>
11:20	<p><i>Occupational exposure to Bisphenol A via thermal paper. Urinary biomonitoring study</i></p> <p><b>S. N'Daw</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
11:40	<p><i>Reducing inhalation and dermal exposures to polycyclic aromatic compounds and their metabolites in the urine of hot-mix asphalt paving workers</i></p> <p><b>J. Snawder</b> et al., National Institute for Occupational Safety and Health (NIOSH), Cincinnati, USA</p>
12:00	<p><i>Detection of tetrahydroxylated-benzo[a]pyrene isomers in hair as biomarkers of exposure to benzo[a]pyrene and signature of DNA-adduct levels</i></p> <p><b>N. Grova</b> et al., Public Health Research Centre (CPR-Santé), Luxembourg, LU</p>
12:20	<b>Lunch</b>
<p><b>Session 3: NEW APPROACHES IN EXPOSURE ASSESSMENT &amp; RISK REDUCTION</b> Chairpersons: <b>Olivier Le Bihan</b>, INERIS, Verneuil-en-Halatte, FR &amp; <b>Dominique Thomas</b>, ENSIC, Nancy, FR</p>	
13:40	<p><i>Monitoring occupational exposure using real-time detection</i></p> <p><b>J.S. Barbotin</b>, Service inter-entreprises de santé au travail (SIST) Arve Mont-Blanc (AMB), Scionzier, FR</p>
14:00	<p><i>Development and validation of a tool for mapping operator exposure at workstations DACTARI: trajectography acquisition device for individual risk analysis</i></p> <p><b>P. Martin</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>

14:20	<p><i>Risk analysis and reorganisation of a workplace dedicated to a nano-ZrO<sub>2</sub> process</i></p> <p><b>O. Le Bihan</b> et al., Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, FR</p>
14:40	<p><i>Skin exposure to bitumen: mutual contributions to ergonomics and metrology</i></p> <p><b>N. Judon</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
15:00	<b>Coffee break</b>
15:30	<p><i>Validation of the test bench for N95 filtering face-piece respirators - Comparison of performance measurements with simulated occupational exposure</i></p> <p><b>C. Brochot</b> et al., Institut de recherche Robert-Sauvé en santé et sécurité au travail (IRSST), Montreal, CA</p>
15:50	<p><i>Respiratory protective devices used during removal of asbestos-containing material: method for assessing their performance in work situations</i></p> <p><b>S. Chazelet</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
<p><b>Session 4: INPUTS FROM NUMERICAL SIMULATION</b></p> <p>Chairpersons: <b>Emmanuel Belut</b>, INRS, Vandœuvre-lès-Nancy, FR &amp; <b>Goodarz Ahmadi</b>, Clarkson University, New-York, USA</p>	
16:10	<p>Keynote speaker: <b>Goodarz Ahmadi</b>, Clarkson University New-York, USA</p> <p><i>Computational Modeling of Particle Transport and Deposition in Indoor and Outdoor Environments</i></p>
16:30	<p><i>Estimating emission profiles of a source of particulate matter (transient regime)</i></p> <p><b>F. Chata</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
16:50	<p><i>Numerical modelling of transport &amp; deposition of particles in the upper airways</i></p> <p><b>Y. Hoarau</b>, Strasbourg University, Strasbourg, FR</p>
17:10	<b>Poster Session &amp; Exhibition of INRS tools and products</b>
19:00	<b>End of the day</b>
20:00	<b>Social event (Beaux-Arts Museum) in Nancy - Buffet included</b>

Friday 10 April	
8:00	<b>Registration</b>
<b>Session 5: "OMICS" &amp; ALTERNATIVE MODELS IN TOXICOLOGY</b> Chairpersons: <b>Marc Baril</b> , Montreal University, School of public health, Montreal, CA & <b>Hakan Wallin</b> , NRCWE, Copenhagen, DK	
8:30	Keynote speaker: <b>Hakan Wallin</b> , National Research Centre for the Working Environment (NRCWE), Copenhagen, DK <i>Analysis of global gene expression data for risk assessment and revelation of mechanisms of toxicology of nanomaterials</i>
9:10	<i>Proteome changes in auricular lymph nodes and serum after dermal sensitization to toluene diisocyanate in mice</i> <b>P. Hoet</b> et al., University of Leuven (KU Leuven), Leuven, BE
9:30	<i>Mining brain metabolomic and behavior datasets obtained from adult rats exposed to chemicals like PAHs or a mixture of PCBs, dioxins and furans: a powerful tool to assess the risk for the brain of a chronic exposure to environmental contaminants</i> <b>H. Schroeder</b> et al., University of Lorraine & National Institute of Agronomic Research (INRA), Vandœuvre-lès-Nancy, FR
9:50	<i>Interaction between cells and polymeric nanoparticles: what toxicogenomics can bring</i> <b>R. Safar</b> et al., University of Lorraine, Nancy, FR
10:10	<i>SiO<sub>2</sub>-NPs translocate through human bronchial barrier reconstituted in vitro</i> <b>A. Baeza-Squiban</b> et al., Paris Diderot University, Paris, FR
10:30	<b>Coffee break</b>

## Session 6: LOW DOSES AND STRUCTURE-ACTIVITY RELATIONSHIP

Chairpersons: **Marc Baril**, Montreal University, School of public health, Montréal, CA & **Hakan Wallin**, National Research Centre for the Working Environment (NRCWE), Copenhagen, DK

11:00	Keynote speaker: <b>Alain Simonnard</b> , INRS, Vandœuvre-lès-Nancy, FR <i>Chemical risk assessment: toxicology and biometrology innovations</i>
11:40	<i>Urinary excretion profiles of 42 monohydroxylated metabolites in rats exposed to a mixture of low-dose polycyclic aromatic hydrocarbon for a 90-day period</i> <b>N. Grova</b> et al., Public Health Research Centre (CRP – Santé), Luxembourg, LU
12:00	<i>Dose-related assessment of the neurobehavioral toxicity of a 90-day exposure to a mixture of pesticides in adult Wistar male rats</i> <b>H. Schroeder</b> et al., University of Lorraine & National Institute of Agronomic Research (INRA), Vandœuvre-lès-Nancy, FR
12:20	<i>QSPR models for predicting physico-chemical hazards of substances</i> <b>P. Rotureau</b> et al., Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, FR
12:40	<i>Consideration of physical factors during the development of predictive chemical risk models</i> <b>D. Mathieu</b> , Commissariat à l'énergie atomique et aux énergies alternatives (CEA), DAM, Monts, FR
13:00	<b>Closing session</b>
13:15	<b>End of the Conference</b>



## POSTERS

<i>Different methods to determine the oxidative potential of PM2.5 as a predictive marker of their toxicity</i>
<b>Baeza-Squiban A.</b> et al., Paris Diderot University, UMR CNRS 8251, Paris, FR
<i>Assessment of the oxidative potential of nanoparticles: comparison and improvement of methods</i>
<b>Baeza-Squiban A.</b> et al., Paris Diderot University, Paris, FR
<i>Assessment of chemical risk in a petrochemical analysis laboratory (core library), Algeria</i>
<b>Beghdadli B.</b> et al., Faculty of Medicine, Sidi Bel Abbes, Algeria
<i>CHEOPS, a methodological approach to assessing and prioritising chemical risks in the work environment based on toxicity reference values</i>
<b>Berrubé A.</b> et al., Veolia Recherche et Innovation, Maisons-Laffitte, FR
<i>Cytotoxic Drugs: Handling practices and clinical manifestations among hospital staff</i>
<b>Boularas E.A.</b> et al., Faculty of Medicine-University Djillali Liabes of Sidi Bel Abbes, Algeria
<i>Automated generation of reference samples from particles in suspension using the SAGE generation system</i>
<b>Boulet A.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Prevention techniques of chemical risks in bakery industry</i>
<b>Bulut M.</b> et al., Candidate at Ege University, Izmir, Turkey, TR
<i>Assaying beryllium using molecular fluorescence</i>
<b>Carabin N.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Comparison of environmental and biological monitoring of exposure to xylenes</i>
<b>Chakroun R.</b> et al., Institute of Occupational Health and Safety, Tunis, TN
<i>Optimisation of the synthesis of molecularly imprinted polymers for the extraction of urinary glycol ether metabolites</i>
<b>Chakroun R.</b> et al., Institute of Occupational Health and Safety, Tunis, TN
<i>Titanium dioxide-induced gene expression profile in rat lung, a sub-acute inhalation study</i>
<b>Chézeau L.</b> et al., INRS, Vandœuvre-lès-Nancy, FR

<i>In a multivariate world is densisty functional theory (DFT) a way to theoretical toxicology?</i>
<b>Correzzola C.</b> et al., Istituto Nazionale per l'Assicurazione contro gli Infortuni sul lavoro (INAIL), Direzione Regionale Veneto, IT
<i>Co-exposure to toluene (or styrene) and methyl ethyl ketone: impact on biological exposure indicators</i>
<b>Cosnier F.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Modelling the trend of biomonitoring for occupational exposure in Belgium</i>
<b>Duca R.</b> et al., Center for Environment and Health, Leuven, BE
<i>Experimental model of skin/lung responses to chemical exposure</i>
<b>Duca R., Hoet P.</b> et al., Center for Environment and Health, Leuven, BE
<i>Assessing occupational exposure to multiple volatile organic compounds by biometrology: results of an intervention in companies</i>
<b>Erb A.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Derivation of cumulative toxicity indicators for indoor semi-volatile organic compounds: the case of reprotoxic and neurotoxic mixtures</i>
<b>Fournier K.</b> et al., Ecole des Hautes Etudes en Santé Publique (EHESP), Sorbonne Paris Cité, Rennes, FR
<i>Assessment of microenvironments contribution on PM2.5 and PAHs exposures of population using integrated models</i>
<b>Gariazzo C.</b> et al., Istituto Nazionale per l'Assicurazione contro gli Infortuni sul lavoro (INAIL), Monteporzio Catone, IT
<i>Biological assessment of exposure to di-2-ethylhexyl phthalate (DEHP) in the soft PVC industry in France</i>
<b>Gaudin R.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Individual production of reference materials by using a piezoelectric microdosing system - First tests</i>
<b>Giesen Y.</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE
<i>Performance of the <math>\mu</math>-Cathia aerosol sampler versus conventional thoracic health-related aerosol fraction</i>
<b>Görner P.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Setting up of the Bhas 42 in vitro cell transformation assay</i>
<b>Guichard Y.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Innovative adsorbents for workplace nitrous oxide diffusive sampling</i>
<b>Guillemot M.</b> et al., INRS, Vandœuvre-lès-Nancy, FR



<i>Internalisation of international regulations on chemical risk in Morocco "Case of transportation of hazardous materials"</i>
<b>Ibnlfassi A.</b> et al., University Hassan 1, Settat, MA
<i>Supercritical CO<sub>2</sub> desorption for air sampling analysis</i>
<b>Langlois E.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Adjustment of Workplace Exposure Standards for Atmospheric Contaminants for Extended Work Shifts – Models Overview</i>
<b>Laranjeira P.</b> , Instituto Politécnico do Porto, Felgueiras, PT
<i>Chemical risk: a global approach for local solutions</i>
<b>Larnaud H.</b> et al., Rectorat Académie de Grenoble, Grenoble, FR
<i>Draft canister method for sampling and analysis of select volatile organic compounds</i>
<b>Lebouf R.F.</b> et al., National Institute for Occupational Safety and Health (NIOSH), Morgantown, WV, USA
<i>Ventilation assessment and improvement using real time techniques in a slate workshop with high RCS (respirable crystalline silica) concentrations</i>
<b>Madera-Garcia J.</b> et al., National Silicosis Institute, Oviedo, ES
<i>Assessing chemical risks: an overall management tool</i>
<b>Magalhaes-Antoine I.</b> et al., Bureau Veritas, Nancy, FR
<i>Assessment of the toxic effect of the endocrine disruptor lead on workers</i>
<b>Mansouri-Bentayeb O.</b> et al., Université Badji Mokhtar, Annaba, Algeria
<i>The contribution of durum wheat (<i>Triticum durum</i>) to reducing lead toxicity: a study of some physiological indicators in the Wistar rat</i>
<b>Mansouri-Bentayeb O.</b> et al., Université Badji Mokhtar, Annaba, Algeria
<i>Improvement of analytical performance during the use of impactors for characterising nanostructured aerosols</i>
<b>Matéra V.</b> et al., INRS, Vandœuvre-lès-Nancy, FR
<i>Determination of toxicity of an in-housed synthesized PEGylated Nano Graphene using bone marrow mesenchymal stem cells</i>
<b>Mohanan P.V.</b> et al., Sree Chitra Tirunal Institute for Medical Sciences and Technology, Kerala, India

<p><i>Occupational exposure to mycotoxins. Biomarkers and airborne contamination measurements</i></p> <p><b>Ndaw S.</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>
<p><i>Updating of OELs for complex hydrocarbon solvents</i></p> <p><b>Nies E.</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE</p>
<p><i>Use of an effective concentration approach to classify alloys in 2015</i></p> <p><b>Oller A.R.</b> et al., University of Real World, Durham, USA</p>
<p><i>Correlation between mass and number concentration of dust at different workplace scenarios with regard to ultrafine particles</i></p> <p><b>Pelzer J.</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE</p>
<p><i>CFD simulations of air distribution and thermal comfort when using textile air ducts</i></p> <p><b>Peters S.</b> et al., Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, DE</p>
<p><i>Development of a monitoring strategy based on UPLC-MS/MS for the assessment of occupational exposure to airborne pharmaceutical compounds</i></p> <p><b>Poels K.</b> et al., University of Leuven (KU Leuven), Leuven, BE</p>
<p><i>Quantitative cancer risk assessment for occupational exposures to asphalt fumes during built-up roofing asphalt (BURA) operations</i></p> <p><b>Rhomberg L.R.</b> et al., Gradient, Cambridge, MA, USA</p>
<p><i>The contribution of molecular modelling in assessing product and process safety</i></p> <p><b>Rotureau P.</b> et al., Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, FR</p>
<p><i>Interaction between cells and polymeric nanoparticles: Contribution of toxicogenomics</i></p> <p><b>Safar R.</b> et al., University of Lorraine, Nancy, FR</p>
<p><i>Particle-induced cell migration assay (PICMA): rutile TiO<sub>2</sub> and SiO<sub>2</sub> but not anatase TiO<sub>2</sub> and BaSO<sub>4</sub> can induce migration of NR8383 alveolar macrophages</i></p> <p><b>Schremmer I.</b> et al., Institute for Prevention and Occupational Medicine of the German Social Accident Insurance (IPA) - Institute of the Ruhr-University Bochum, Bochum, DE</p>
<p><i>Development of a co-culture model to study the genotoxicity of particulate matter</i></p> <p><b>Sébillaud S.</b> et al., INRS, Vandœuvre-lès-Nancy, FR</p>

*Carbon Nanotubes: A PERSPECTIVE FOR THE FUTURE*

**Simões H.** et al., Coimbra Health School, Coimbra, PT

*Development of biotests to ensure quality, safety and improvement of packaging intended for food contact*

**Souton E.** et al., Institut national de la santé et de la recherche médicale (INSERM), Université de Bourgogne, Dijon, FR

*Analysis of the effect of para-phenylenediamine on the osmotic stability of human erythrocyte through electrochemical oxidation*

**Srhayri R.** et al., Université Hassan II - Casablanca, MA

*Solvents effects on the stapedial reflex*

**Wathier L.** et al., INRS, Vandœuvre-lès-Nancy, FR

*Optimisation of the filtration of ultrafine metallic particles by granular bed*

**Wingert L.** et al., INRS, Vandœuvre-lès-Nancy, FR et Laboratoire Réactions et Génie des Procédés, UMR CNRS 7274, Nancy, FR

*ProtecPo : a software for the selection of skin protective materials*

**Zimmermann F.** et al., INRS, Vandœuvre-lès-Nancy, FR