



"Protecting public and environmental health by understanding and communicating toxicology"

Detailed Programme

Status: 01 September,, 2016

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Sunday, 4 Septembe	er, 2016
08h00 - 19h00	Congress Registration
10h00 - 16h00	Continuing Education Courses (CEC)
	including coffee & lunch breaks
10h00 - 16h00	CEC 1: Sponsored by ELSEVIER "Integrative Approaches to Testing and Assess-
PARIS	ment (IATA) for skin sensitization: from theory to practice"
	Chairs: Janine Ezendam, The Netherlands and Laura Rossi, Finland
	Much progress has been made in the development, validation and regulatory acceptance of non-animal test methods for skin sensitisation hazard identification. For
ELSEVIER	full replacement of the currently used animal tests, integration of data from multiple alternative test methods is needed to mechanistically cover the complexity of the skin sensitization process. The OECD Adverse Outcome Pathway (AOP) describes the mo-
	lecular initiating event and subsequent key events of the induction of skin sensitization. This AOP is used as a mechanistic anchor to develop integrated and defined ap-
	proaches to testing and assessment for skin sensitization. In this CEC, participants are
	informed on how non-animal test methods can be used for skin sensitization testing
	in the context of the REACH regulation. Furthermore, two recently published OECD guidance documents on defined and integrated approaches to testing and assessment
	will be presented, explaining definitions, general principles and generic examples.
	Case studies that illustrate different defined approaches for skin sensitization are provided and their utility for safety assessment of cosmetics is presented. The role of
	computational and statistical tools in integrated approaches is covered as well. Over-
	all, this CEC course will provide the most recent knowledge on defined and integrative
	approaches for skin sensitization and the way they can be applied in practice.
	10:00 - 10:45
	CEC 1-1
	How to use non-animal test methods for skin sensitisation in the context of
	REACH Regulation
	Laura H Possi
	<u>Laura H Rossi</u> Evaluation, European Chemicals Agency, Helsinki, Finland
	10:45 - 11:30
	CEC1-2
	OECD guidance on the reporting of defined approaches and individual
	-

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EUROTOX 2016 Congr Organisation Turkish Society of Toxicology

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Ege University Faculty of Pharmacy 35100 Izmir, Turkey +90 232 3739173 EUROTOX 2016 Congress Organisation

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information sources to be used within Integrated Approaches to Testing and Assessment (IATA) for Skin Sensitization

Silvia Casati

EURL ECVAM, Joint Research Centre, European Commission

11:30 - 11:45

Coffee Break

11:45 - 12:30

CEC1-3

From theory to practice: case studies illustrating different defined approaches for testing and assessment for skin sensitization

<u> Ianine Ezendam</u>

National Institute for Public Health and the Environment (RIVM)

12:30 - 14:00

Lunch Break

14:00 - 14:45

CEC1-4

Utility of integrated non-animal approaches for skin sensitisation for safety assessment of cosmetics

Sebastian Hoffmann

Consultant of Cosmetics Europe / SEH Consulting Services, Germany

14:45 - 15:30

CEC1-5

Computational tools and their role in integrative approaches

Steve Enoch

School of Pharmacy and Biomolecular Sciences, UK

Wrap-up and final questions

15:30-15:45

10h00 - 16h00 MADRID **CEC 2: Toxicokinetics**

Chairs: Nancy Claude, France, and Eva Cecilie Bonefeld Jorgensen, Denmark

Toxicokinetics is a science that underpins the basis of toxicology, and provides a basis for mechanistic understanding in toxicology. This session seeks to provide an overview of toxicokinetics, whilst updating on areas that are seeing significant developments. The intention is to provide information that is tailored for use in toxicology,







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be it to support safety assessment of pharmaceuticals, pesticides, biocides or to optimise testing strategies in REACH. The session starts with an overview of ADME concepts, before dealing with how to choose bioanalytical methods for tox studies, and the use of micro-sampling to generate optimal information. Approaches for in vitro to in vivo extrapolation are covered, and the integration of PK information in PBPK modelling is described. Participants can expect to have an update of their general theoretical understanding of toxicokinetics, as well as a more detailed understanding of the practical application of the specific methodologies discussed.

10:00 - 10:30

CEC2-1

Basic ADME in non-clinical drug discovery & development

Richard John Weaver

Richard J. Weaver. Servier Group, France

10:30 - 11:00

CEC2-2

Applying the right level of bioanalytical method validation for PK analysis in support of preclinical (tox) studies

Philip Timmerman

Philip Timmerman, Janssen R&D, on behalf of EBF

11:00 - 11:30

Coffee Break

11:30 - 12:00

CEC2-3

Microsampling for Toxicokinetic Studies

<u>Josephine Burnett</u>

Department of Toxicology, Covance Laboratories Ltd, Harrogate, UK

12:00 - 13:30

Lunch Break

13:30 - 14:00

CEC2-4

In vitro kinetics in quantitative in vitro-in vivo extrapolation

Nynke I. Kramer

Institute for Risk Assessment Sciences, Utrecht University

14:00 - 14:30

CEC2-5

An Introduction to PBPK Modelling





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George Demetrius Loizou Health Risks, Health and Safety Laboratory, UK

10h00 - 16h00 **BRUSELAS CD**

CEC 4: Evaluation of food additives in Europe: Point of the art

Chairs: Claudia Roncanciopena, Italy, and Pr. D. Parent Massin, France

All food additives on the EU market are subject to an evaluation programme according to EU regulation N°257/2010 which is expected to be finalized by 2020 and is performed by the Additives and Nutrient Sources (ANS) Panel of EFSA. The programme started by the evaluation of food colours, preservatives and thickeners. While sweeteners has to be considered at the end of the program, the re-evaluation of aspartame has been asked by European Parliament to be considered earlier. During this workshop, the point of the art of these evaluations will be presented by member of the ANS Panel from EFSA.

10:00 - 10:30

CEC4-1

Principles of re-evaluation of food additives in Europe: Point of the Art of the re-evaluation of sweeteners

Alicia Mortensen¹, Fernando Aguilar¹, Riccardo Crebelli¹, Alessandro Di Domenico¹, Maria José Frutos Fernandez¹, Paolo Colombo², Alexandra Tard², Claudia Roncancio Peña²

¹Scientific Panel on Food Additives and Nutrient Sources Added to Food (ANS). European Food Safety Authority (EFSA), Parma, Italy

²European Food Safety Authority, Food Ingredients and Packaging Unit (FIP), Parma, Italy

10:30 - 11:00

CEC4-2

Food colours: Point of the Art evaluation

Agneta Oskarsson¹, Ruud Woutersen², Jean Charles Leblanc², Peter Moldeus², David Gott², Ursula Gundert Remy², Federica Lodi³, Stravoula Tasiopoulou³

¹Department of Biomedical Sciences and Veterinary Public Health, Swedish University of Agricultural Sciences, Uppsala, Sweden

²Scientific Panel on Food Additives and Nutrient Sources Added to Food (ANS), European Food Safety Authority (EFSA), Parma, Italy

³European Food Safety Authority, Food Ingredients and Packaging Unit (FIP), Parma, Italy

11:00 - 11:30

Coffee Break

11:30 - 12:00

CEC4-3

Thickeners and preservatives: Point of the Art of the re-evaluation

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<u>Dominique Parent Massin</u>¹, Birgit Dusemund¹, Oliver Lindtner¹, Pasquale Mosesso¹, Pierre Galtier¹, Anna Christodoulidou², Juho Lemmetyinen²

¹Scientific Panel on Food Additives and Nutrient Sources Added to Food (ANS), European Food Safety Authority (EFSA), Parma, Italy

²European Food Safety Authority, Food Ingredients and Packaging Unit (FIP), Parma, Italy

12:00 - 13:30

Lunch Break

13:30 - 14:00

CEC4-4

Emulsifiers: Point of the Art evaluation

<u>Matthew C Wright</u>¹, Ivan Stankovic², Ine Waalkens Berendsen³, Ruud A Woutersen³, Maged Younes³, Ana Maria Rincon⁴, Dario Battacchi⁴

¹Institute Cellular Medicine, Newcastle University, UK

²Faculty of Pharmacy, University of Belgrade, Serbia

³Scientific Panel on Food Additives and Nutrient Sources Added to Food (ANS),

European Food Safety Authority (EFSA), Italy

⁴European Food Safety Authority, Food Ingredients and Packaging Unit (FIP), Italy

10h00 - 16h00 BRUSELAS EF

CEC 5: In vivo chemical genotoxin exposure and DNA damage in humans measured using the lymphocyte cytokinesis-block micronucleus (CBMN) assay

Chairs: Michael Fenech, Australia, and Nina Holland, USA

The lymphocyte cytokinesis-block micronucleus (CBMN) assay is one of the most commonly used methods to measure chromosomal DNA damage in human populations and has been shown to be associated prospectively with cancer risk. However, there is currently considerable debate about which biomarker assays are suitable for measuring the DNA damage effects of in vivo exposure to chemical genotoxins in humans.

Over the past 30 years at least 295 papers have reported case/control studies on the use of the lymphocyte cytokinesis-block (CBMN) assay to measure DNA damage in humans exposed to various types of chemicals that may be genotoxic in vivo. However this large body of literature has never been comprehensively examined to determine whether the CBMN assay is effective in detecting DNA damage induced by in vivo exposure to different classes of known chemical genotoxins in human populations.

In this workshop we shall be reporting the outcomes of systematic reviews and meta-analyses of these bio-monitoring studies of exposure to different classes of chemical genotoxins using the lymphocyte CBMN assay and comparing its performance to detect induced DNA damage relative to other genotoxicity assays that are also commonly used.

Furthermore, current knowledge on the mechanisms by which chemical genotoxin exposure may cause the induction of micronuclei and other nuclear anomalies in vivo and ex vivo will be discussed. The possibility of further improving the utility of the lymphocyte CBMN assay to measure DNA damage caused by chemical genotoxin exposure will be explored.

10:00 - 10:30



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CEC5-1

Pesticides and herbicides - Results of a systematic review of human exposure studies using the lymphocyte CBMN assay

Claudia Bolognesi¹, Nina Holland²

¹Environmental Carcinogenesis Unit, IRCCS AUO San Martino IST-

National Cancer Research Institute, Genova, Italy

²Nina Holland, School of Public Health, University of California, Berkeley, California, USA

10:30 - 11:00

CEC5-2

Heavy metals: Results of a systematic review of human exposure studies using the lymphocytes micronucleus assay

<u>Siegfried Knasmueller</u>, Miroslav Mišík, Michael Kundi, Georg Wultsch, Armen Nersesyan

Institute of Cancer Research, Department of Internal Medicine I, Medical University of Vienna, Vienna, Austria

11:00 - 11:30

Coffee Break

11:30 - 12:00

CEC5-3

Exposure to petroleum, petroleum derivatives PAHs and traffic fumes - Results of a systematic review of human studies using the lymphocyte CBMN assay

Radim Sram

Institute of Experimental Medicine AS CR, Prague, Czechia

12:00 - 13:30

Lunch Break

13:30 - 14:00

CEC5-4

Biomonitoring of genotoxic effects for human exposure to nanomaterials: The challenge ahead

Micheline Kirsch Volders, Laetitia Gonzalez

Laboratory of cell genetics, Vrije Universiteit Brussel, Brussels, Belgium

14:00 - 14:30

CEC5-5

 ${\bf All\ other\ chemicals-Results\ of\ systematic\ reviews\ of\ human\ exposure\ studies\ using\ the\ lymphocyte\ CBMN\ assay}$

Stefano Bonassi



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Clinical and Molecular Epidemiology IRCCS San Raffaele Pisana, Rome, Italy

10h00 - 16h00 **BRUSELAS GH**

CEC 6: Green toxicology - A complementary 'qua non' activity for the sustainable development of chemicals and drugs in the 21st century

Chairs: Harald Krug, Switzerland and Bensu Karahalil, Turkey

Green toxicology is the application of predictive toxicology to the production of chemicals with the specific intent of improving their design for hazard reduction. The twelve principles of green chemistry outline a strategy to reduce hazard through molecular and process design. Reducing toxicity is at the core of green chemistry and sustainability, therefore the input of toxicologists early in the chemical enterprise is essential to inform the choices of molecular designers in selecting less hazardous design strategies. Information derived from mechanistic and computational toxicology combined forms the nexus between toxicology and green chemistry. Each group is trained to examine, understand and describe aspects of the structure hazard relationship from a narrow perspective. This course will provide a forum for collaboration among academia and industry working in complementary fields to discover common ground in the quest for safer chemicals.

10:00 - 10:30

CEC6-1

Twenty first century toxicology and safer chemical design

Thomas Hartung

Johns Hopkins Bloomberg School of Public Health, USA

10:30 - 11:00

CEC6-2

How the Greenpeace Detox campaign drives the fashion industry towards sustainable supply chains

Anne Bonhoff

UL Environment

11:00 - 11:30

Coffee Break

11:30 - 12:00

CEC6-3

Green toxicology and chemistry: Hand in glove

Bennard Van Ravenzwaay, Hennicke Kamp, Robert Landsiedel, Tzutzuy Ramirez all authors BASF SE, Ludwigshafen/Germany

12:00 - 13:30

Lunch Break



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	13:30 - 14:00	
	CEC6-4	
	Green Toxicology – The Future in sustainability in chemical and material development	
	Harald F. Krug Empa - Swiss Federal Laboratories for Materials Science and Technology, St. Gallen, Switzerland & NanoCASE GmbH, Engelburg, Switzerland	
16h00	Opening of the Exhibition	
17h00 - 19h00 AUDITORIUM I	Opening Ceremony- AUDITORIUM I Chair: Aristidis Tsatsakis, President of EUROTOX, Greece	
	17.00-17.30 Welcome Address by Ali Esat Karakaya President of the EUROTOX 2016 Congress, Turkey	
	Welcome Address by Aristidis Tsatsakis President of EUROTOX, Greece	
	17:30 – 17:45 EUROTOX Merit Award Ceremony	
	18:00 – 19:00 Opening Lecture Chair: Ali Esat Karakaya, Turkey	
	Nanomedicines for neurological disorders Turgay Dalkara Hasettena University Institute of Naurosciences Ankara Turkey	
19h00 - 21h00	Hacettepe University, Institute of Neurosciences, Ankara, Turkey Walsoma Poscantian, EXHIBITION ADEA	
Monday, 5 Septemb	Welcome Reception- EXHIBITION AREA	
08h00 - 19h00	Congress Registration 08h30 – 18h00 Exhibition	
191100	Keynote Lecture Chair: Ruth Roberts, UK	
08h30 - 09h30 AUDITORIUM I	K-1 Evolution of Computational Toxicology: From Primitive Beginnings to Sophisticated Application	
	Russell S. Thomas Environmental Protection Agency, USA	
09h30 - 10h00	Coffee Break, Exhibition and Poster Viewing	
10h00 - 12h00	Symposium S01: Adverse drug reactions: Mechanisms and preclinical testing	
AUDITORIUM II	Chairs: Hilmi Orhan, Turkey, and Fred Guengerich, USA	
	S01-1 Mechanisms of adverse drug reactions: Metabolic and others	





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Frederick Peter Guengerich

Vanderbilt University School of Medicine, Nashville, TN, United States

S01-2

Role of glutathione transferases and quinonoxidoreductases in protection against reactive drug metabolites

Jan N.M. Commandeur

VU University Amsterdam, Molecular Toxicology, Amsterdam, The Netherlands

S01-3

From intravital imaging to in vitro test systems

Jan G. Hengstler

Leibniz Research Centre for Working Environment and Human Factors IfADo -Dortmund - Germany

S01-4

Involvement of mitochondria in drug-induced toxicities

Hilmi Orhan

Department of Pharmaceutical Toxicology, Faculty of Pharmacy, Ege University, Izmir, Turkey

10h00 - 12h00 AUDITORIUM III

Symposium~S02: A~multidisciplinary~approach~for~novel~development al~neurotoxicity~risk~assessment~contributing~to~the~AOP~concept

Chairs: Eugenio Vilanova, Spain and Anna Price, Italy

S02-1

Systematic review on methods for developmental neurotoxicity evaluation based on an EFSA Report

<u>Andrea Terron</u>¹, Stefan Masjosthusman², Henrich Alm², Jenny Baumann², Lieve Geerts⁴, Helen Hakansonn³, Hilda Witters⁴, Ellen Fritsche²

¹European Food Safety Authority (EFSA), Parma, Italy

²IUF, Dusseldorf, Germany

³Karolinska Institutet, Stockholm, Sweden

⁴VITO, Boeretang, Belgium

S02-2

3D Models and omics approaches to study developmental neurotoxicity

<u>Helena T Hogberg</u>¹, Mounir Bouhifd², Ozge Cemiloglu Ulker³, Rita De Cassia Da Silveira E Sa⁴, Georgina Harris¹, Andre Kleensang¹, Alexandra Maertens¹, David Pamies¹, Lena Smirnova¹, Liang Zhao¹, Hartung Thomas¹

¹Center for Alternatives to Animal Testing, Johns Hopkins Bloomberg School of Public Health, Baltimore, USA

²Joint Research Center, European Commission, Ispra, Italy

³Department of Toxicology, Faculty of Pharmacy, University of Ankara, Ankara, Turkey

⁴Department of Physiology and Pathology, Federal University of Paraiba, Paraiba,



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S02-3

Species-specific, comparative functional and 'omics' analyses of developing human, rat and mouse primary neurospheres

Ellen Fritsche

IUF - Leibniz Research Institute for Environmental Medicine, Düsseldorf, Germany

S02-4

From simple in vitro test to complex models: the example of developmental toxicity of organophosphorus compounds

<u>Eugenio Vilanova</u>, Andrea C. Romero, David Pamies, Carmen Estevan, Miguel A. Sogorb

Unit of Toxicology, Institute of Bioengineering, Miguel Hernandez University of Elche, Alicante-Spain

S02-5

Using mechanistic information in application of an Adverse Outcome Pathway (AOP) concept for developmental neurotoxicity evaluation

Anna Price

Institute for Health and Consumer Protection, European Commission Joint Research Centre, Ispra, Italy

10h00 - 12h00 MADRID

Workshop W01: Enhancing the quality of predictions for developmental toxicity based on alternative methods

Chairs: Bennard van Ravenzwaay, Germany and Aldert Piersma, The Netherlands

W01-1

A transcriptomic approach for a mechanistic insight into developmental toxicity of azoles in the rat Whole Embryo Culture

<u>Myrto Dimopoulou</u>¹, Aart Verhoef², Bennard Van Ravenzwaay³, Ivonne M.C.M. Rietjens¹, Aldert H. Piersma²

¹Division of Toxicology, Wageningen University, the Netherlands

²National Institute of Public Health and the Environment (RIVM), Bilthoven, The Netherlands

³BASF SE, Experimental Toxicology and Ecology, Ludwigshafen, Germany

W01-2

Screening of developmental toxicity – Validation and predictivity of the zebrafish embryotoxicity assay (ZETA) and strategies to optimize de-risking developmental toxicity of drug candidates

Eckart Krupp

Sanofi-Aventis Deutschland GmbH, Preclinical Safety, Frankfurt, Germany

W01-3

Crack the egg – Improvement in the use of chicken embryos to predict developmental toxicity



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<u>Burkhard Flick</u>, Tzutzuy Ramirez, Bennard Van Ravenzwaay Department of Experimental Toxicology and Ecology, BASF SE, Ludwigshafen, Germany

W01-4

Pathway specific assay (1) The assessment of angiogenesis/vasculogenesis in the context of developmental toxicity

<u>Tuula Heinonen</u>, Outi Huttala, Tarja Toimela Ficam, University of Tampere, Finland

W01-5

Computational modeling and simulation of developmental toxicity

Thomas B Knudsen

National Center for Computational Toxicology, USA

10h00 - 12h00 PARIS

Workshop W02: Improving chemicals risk assessment with refined exposure characterisation

Chairs: Jim Bridges, UK, and Helmut Greim, Germany

W02-1

Improving chemical risk assessment through tiered and targeted application of exposure assessment

Gerlienke Schuur

A.G. Schuur

W02-2

Experiences from the ECETOC TRA tool, 2004-2016

Chris Money

Cynara Consulting, Brockenhurst, UK

W02-3

Refining exposure data acquisition and application in higher tier consumer assessments, W2(10)

Natalie Von Goetz

Institute of Chemical and Bioengineering, ETH Zurich, Switzerland

W02-4

Modelling Total Exposure to Chemicals from Multiple Sources

Sarah Anne Tozer

Procter & Gamble, Egham, Surrey, UK

W02-5

How to improve the quality of exposure information needed for REACH processes?



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	I	
	Andreas Ahrens Registration Directorate, European Chemicals Agency, Helsinki, Finland	
12h00 - 14h00	Lunch Break, Exhibition & Poster Session I-POSTER AREA	
	HESI CITE Lecture Chair: Raegan O'Lone	
12h00 - 13h00 AUDITORIUM II	K-2 The use of in vitro models: On the road from hazard to risk assessment	
	Martin van den Berg Institute for Risk Assessment Sciences (IRAS) & Utrecht University, The Netherlands	
13h00 - 14h00 AUDITORIUM I	Glyphosate Task Force (GTF) Symposium	
13h00 - 14h00 BRUSELAS ROOM GH	HESI roundtable discussion Chairs: Ruth Roberts and Raegan O'Lone The use of replacement in vitro models in risk assessment	
14h00 - 16h00 AUDITORIUM I	Symposium S03: Microbiome, nutrition, and immune-mediated diseases Chairs: Berran Yucesoy, USA and Marc Pallardy, France S03-1 Complex interplay between the immune system and the infant gut microbiota: Potential health implications	
	Maria Jenmalm Department of Clinical and Experimental Medicine, Unit of Autoimmunity and Immune Regulation, Linköping University, Linköping, Sweden S03-2	
	Early-life nutrition, gut microbiota and allergies	
	Hania Szajewska The Medical University of Warsaw, Department of Pediatrics	
	S03-3 Diet, gut microbiota, and immunometabolic dysfunction	
	Alexander R Moschen Department of Medicine, Division of Internal Medicine I, Medical University Innsbruck, Innsbruck, Austria	
	S03-4 Skin microbiome, inflammatory and allergic skin diseases	
	Georgios Stamatas Emerging Science & Innovation, R&D, Johnson & Johnson Santé Beauté France, Issy-les-Moulineaux, France	
14h00 - 16h00 AUDITORIUM II	Workshop W05 Rat Carcinogenicity Studies – Can they be replaced? Chair: Thomas Weiser, Switzerland, and Ruth Roberts, UK	



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W05-1

Overview of pharmacology-induced mechanisms of carcinogenesis

<u>Jan Willem Van Der Laan</u>¹, Peter Kasper², Beatriz Silva Lima³, David Jones⁴, Markku Pasanen⁵

¹Section on pharmacological, The Netherlands.

²Federal Institute for Drugs and Medical Devices (BfArM), Bonn, Germany

³Universidade de Lisboa, Faculty of Pharmacy, Lisbon, Portugal

⁴Medicines and Healthcare products Regulatory Agency, London, United Kingdom ⁵University of Eastern Finland, Faculty of Health Sciences, School of Pharmacy, Kuopio, Finland

W05-2

Revision of the current ICH S1 guidance on rodent carcinogenicity testing: Where do we stand?

Peter Kasper

Federal Institute for Drugs and Medical Devices (BfArM)

W05-3

Carcinogenicity Assessment Documents and the added value of "Weight-of-Evidence" factors - an industry perspective

<u>Lutz Mueller</u>

F. Hoffmann-La Roche Innovation Center, Basel, Switzerland

W05-4

Future Directions in Carcinogenicity Testing for Pharmaceuticals

Michael Graziano

Drug Safety Evaluation at Bristol-Myers Squibb

14h00 - 16h00 AUDITORIUM III

Symposium S05: The H2020 EU-ToxRisk project: A novel flagship program for mechanism-based safety sciences and risk assessment

Chair: Hennicke Georg Kamp, Germany, and Joana Mirana, Portugal

S05-1

The EU-ToxRisk project: A European flagship program for mechanism-based safety sciences and risk assessment

Hennicke Georg Kamp

BASF SE, Experimental Toxicology and Ecology, Ludwigshafen, Germany

S05-2

Industry perspective on AOP-based toxicological approaches: from knowledge to implementation

Hennicke Georg Kamp

BASF SE, Experimental Toxicology and Ecology, Ludwigshafen, Germany



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S05-3

Integrative knowledge management and modelling supporting the EU-ToxRisk project

Ferran Sanz

IMIM – Universitat Pompeu Fabra Barcelona, Spain

S05-4

Assessment of quantitative AOP key events in human hepatocytes using transcriptomics biomarkers

Jan G Hengstler

Department of Systems Toxicology, IfADo at TU Dortmund, Germany

S05-5

Development and reproductive toxicity: Advanced model systems and quantitative risk assessment

Dinant Kroese¹, Andre Wolterbeek², Bart Van De Burg³

¹Department Risk Analysis of Products In Development, TNO Zeist, The Netherlands

²Triskelion B.V., a TNO Company, Zeist, The Netherlands

³BioDetection Systems BV, Amsterdam, The Netherlands

14h00 - 16h00 MADRID

Workshop W03: Mass Spectrometry Imaging as investigative tool for molecular toxicology

Chairs: Stefan Platz, UK and Richard Goodwin, UK

W03-1

Mass spectrometry imaging in drug discovery and development

Richard Goodwin

Pathology Sciences, Drug Safety & Metabolism, AstraZeneca UK

W03-2

Investigating drug-induced toxicity in tissue samples using mass spectrometry imaging

Anna Nilsson¹, Mohammadreza Shariatgorji¹, Richard Goodwin²

¹Department of Pharmaceutical Biosciences, Biomolecular Imaging and Proteomics, Uppsala University, Uppsala, Sweden

²AstraZeneca, Drug Safety and Metabolism, Cambridge, UK

W03-3

Ambient Ionization Mass Spectrometry – From the Origins to Molecular Pathology Applications

Renata Filipe-Soares

Imperial College, UK

W03-4

Target organ toxicity - application of MSI



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	John Swales Pathology Sciences, AstraZeneca, UK W03-5 Moving MS(i) closer to surgery: The need to improve pre-, intra- and post-operative clinical diagnostics
	<u>Tiffany Porta</u> , Keely Pierzchalski, Klara Scupakova, Anne L. Bruinen, Florian P. Y. Barré, Pierre Maxence Vaysse, Flora Olivier, Benjamin Balluff, Berta Cillero-Pastor, Ron M. A. Heeren M4I institute, University of Maastricht, Maastricht, The Netherlands
14h00 - 16h00 PARIS	Workshop W04: Protein targets of reactive intermediates: Linking chemistry to biology and adverse outcome Chairs: Angela Mally, Germany, and Hilmi Orhan, Turkey W04-1 Introduction Angela Mally University of Würzburg, Würzburg, Germany W04-2 Targets and consequences of alkylation damage by reactive electrophiles Angela Mally Department of Toxicology, University of Würzburg, Würzburg, Germany W04-3 The expanding landscape of the thiol redox proteome ling Yang National Center for Protein Sciences, Beijing W04-4 Modification of cysteine residues by cyclopentenone prostaglandins in the elucidation of redox regulation of protein function Dolores Pérez Sala Department of Chemical and Physical Biology, Centro de Investigaciones Biológicas, CSIC, Madrid, Spain W04-5 Redox proteomics analysis to decipher the neurobiology of Alzheimer-like neurodegeneration
	Marzia Perluigi Department of Biochemical Sciences, Sapienza University of Rome

Coffee Break Sponsored by ELSEVIER, Exhibition & Poster Viewing

16h00 - 17h00



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ELSEVIER 17h00 - 19h00	Symposium S06: Nanosafety: Present and Future
AUDITORIUM I	Chairs: Kai Savolainen, Finland, and Flemming R. Cassee, The Netherlands
	S06-1 Predicting of toxicity of engineered nanomaterials Kai Savolainen Finnish Institute of Occupational Health S06-2 Immunotoxic and pulmonary effects of engineered nanomaterials
	Harri Alenius Department of Bacteriology and Immunology, Helsinki University, Helsinki, Finland
	S06-3 Innovation and Model Organisms for the Environmental Hazard Assessment of Engineered Nanomaterials
	Richard D Handy School of Biological Sciences, Plymouth University, United Kingdom
	S06-4 Developmental toxicity of engineered nanomaterials
	Karin S. Hougaard ¹ , Jitka S. Hansen ¹ , Petra Jackson ¹ , Zdenka O. Kyjovska ¹ , Anne Mette Z. Boisen ¹ , Carole Yauk ² , Sabina Halappanavar ² , Keld A. Jensen ¹ , Håkan Wallin ¹ , Sandra Goericke Pesch ³ , Astrid Skovmand ¹ , Ulla Vogel ¹ ¹ Danish Nanosafety Centre, National Research Centre for the Working Environment, Copenhagen, Denmark ² Environmental Health Science and Research Bureau, Health Canada, Ottawa, Canada ³ Veterinary Reproduction and Obstetrics, Department of Large Animal Sciences,
	University of Copenhagen, Denmark
	S06-5 Dose metric for the prediction of toxicity of nanomaterials
	Flemming R Cassee, Hedwig M Braakhuis, Margriet V Park, Agnes G Oomen, Ilse Gosens, Wim H De Jong National Institute for Public Health and the Environment (RIVM), The Netherlands
17h00 - 19h00	Symposium S07: Safety aspects of natural compounds in dietary supplements
AUDITORIUM II	Chairs: Janine Ezendam, The Netherlands and Majorie van Duursen, The Netherlands
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S07-1

Adverse effects of Plant Food Supplements and botanical preparation: data collected during the EU project PlantLIBRA

<u>Patrizia Restani</u>¹, Alessandro Ceschi², Gianfranco Frigerio¹, Francesca Colombo¹, Saskia Lüde², Hugo Kupferschmidt², Chiara Di Lorenzo¹

¹Dept. Pharmacological and Biomolecular Sciences

²National Poisons Centre, Tox Info Suisse, Associated Institute of the University of Zurich, Zurich, Switzerland

S07-2

Natural compounds in dietary supplements: Female reproductive health hazard assessment in vitro

<u>Majorie Van Duursen</u>, Sandra Nijmeijer, Kamila Solak, Martin Van Den Berg Toxicology Division, Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands

S07-3

Quality guidelines for ensuring safety of botanical ingredients and final products

Hartwig Sievers

PhytoLab GmbH & Co. KG, Germany

S07-4

Regulations of food supplements

Patrick Coppens

EAS Strategies, Brussels, Belgium

17h00 - 19h00 **AUDITORIUM III**

Symposium S08: Role of endocrine disruptors in immune mediated disorders

Chairs: Emanuela Corsini, Italy and Marc Pallardy, France

\$08-1

Prenatal glucocorticoids: Consequences for the offspring's immunity

<u>Eva Tolosa</u>, Christina Gehbauer, Anna Gieras, Ines Diepenbruck Department of Immunology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany

S08-2

Exposure to endocrine disruptors accelerates diabetes type 1 development in NOD mice via impaired macrophage function

<u>Johanna Bodin</u>¹, Anette Kocbach Bølling², Rune Becher², Frieke Kuper³, Martinus Løvik⁴, Unni Cecilie Nygaard¹

¹Department of Toxicology and Riskassessment, Norwegian Institute of Public Health, Oslo, Norway

²Department of Air Pollution and Noise, Norwegian Institute of Public Health, Oslo, Norway





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³TNO Nutrition and Food Research, Zeist, The Netherlands

⁴Department for Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University for Science and Technology, Trondheim, Norway

S08-3

Glucocorticoid receptor disruptors and immune functions

Ivana Klopčič

Faculty of Pharmacy, University of Ljubljana, Aškerčeva 7, 1000 Ljubljana, Slovenia

S08-4

Gene signatures in human leukocytes exposed to endocrine disruptors

<u>Greet Schoeters</u>^{1,2,3}, Sylvie Remy², Nathalie Lambrechts¹, Britt Wens¹

¹Health Department, VITO, Mol, Belgium

²Biomedical Dept. University of Antwerp, Antwerp, Belgium

³Environmental Medicine, Public Health department, Southern Denmark University, Odense, Denmark

17h00 - 19h00 MADRID

Symposium S04: DNA damage and repair in Cancer: From bench to clinic Chairs: Miral Dizdaroglu, USA and Sinan Süzen, Turkey

S04-1

Coordination during the stepwise process of base lesion DNA repair

Samuel H. Wilson

Genome Integrity and Structural Biology Laboratory, NIH-NIEHS, Research Triangle Park, NC, USA

S04-2

 $\label{lem:microscopic} \mbox{Mitochondrial dysfunction in DNA repair defective disorders: mechanisms and pathological relevance}$

Eugenia Dogliotti

Istituto Superiore di Sanità, Rome, Italy

S04-3

 $\label{lem:condition} \textbf{Genomic uracil-Important carcinogenic mutagen but normal intermediate in adaptive immunity}$

Hans Einar Krokan, Geir Slupphaug, Pål Sætrom, Antonio Sarno, Anastasia Galashevskaya, Maria Brenner Lundbæk, Per Arne Aas, Ruth Haaland Krokan, Nina Beate Liabakk, Henrik Sahlin Pettersen, Mirta M. Sousa, Berit Doseth, Bodil Kavli Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, Trondheim, Norway

S04-4

Dissecting base excision repair in breast cancer for personalization of therapy

Srinivasan Madhusudan

University of Nottingham, Nottingham, UK



EUROTOX2016 (Fig.)





	S04-5		
	Inhibition of DNA glycosylases in development of cancer therapeutics		
	Miral Dizdaroglu ¹ , Aaron C. Jacobs ² , Marcus J. Calkins ² , Ajit Jadhav ³ , Dorjbal Dorjsuren ³ , David Maloney ³ , Anton Simeonov ³ , Nathan Donley ² , Pawel Jaruga ¹ , Erdem Coskun ¹ , Amanda K. Mccullough ² , Stephen Lloyd ² ¹ National Institute of Standards and Technology, Gaithersburg, Maryland, USA ² Oregon Health and Science University, Portland, Oregon, USA ³ National Center for Advancing Translational Sciences, National Institutes of Health, Rockville, Maryland, USA		
17h00 - 19h00	Workshop W06: Use and misuse of the TTC concept in risk assessment		
PARIS	Chair: Dieter Schrenk, Germany, and Helena Kandarova, Slovakia		
	W06-1 Twelve years of TTC (of genotoxic carcinogens) – A success story?		
	<u>Dieter Schrenk</u> Food Chemistry and Toxicology, University of Kaiserslautern		
	W06-2		
	TTC and "unknowns", e.g. in food contact materials		
	Benoit Schilter Nestlé Research Center		
	W06-3 TTC and herbal preparations		
	Olavi Pelkonen Department of Pharmacology and Toxicology, University of Oulu, Oulu, Finland		
	W06-4 Is the use of a default TTC for impurities warranted?		
	<u>Lutz Mueller</u> F. Hoffmann-La Roche Innovation Center, Basel, Switzerland		
19h30 - 21h00	AstraZeneca Reception-by invitation only NH COLLECTION HOTEL AstraZeneca AstraZeneca		
Tuesday, 6 Septemb	per, 2016		
08h00 - 18h30	Congress Registration 08h30 – 18h00 Exhibition		
08h30 - 09h30	Keynote Lecture Bo Holmstedt Memorial Fund Chair: Herman Autrup, Denmark		
AUDITORIUM I	K-3 Assessment of functional impairment and transcriptome changes based on human stem cell derived developmental toxicity tests		







	and environmental nearth by understanding and communicating toxicology	
	Marcel Leist In vitro toxicology and biomedicine, University of Konstanz, Konstanz, Germany	
09h30 - 10h00	Coffee Break, Exhibition and Poster Viewing	
10h00 - 12h00 AUDITORIUM I	Symposium S09: Integrating epidemiology and experimental toxicology to improve pesticide risk assessment	
AUDITORIUMI	Chairs: Aristidis Tsatsakis, Greece and Antonio Hernandez-Jerez, Spain	
	S09-1 Integrating epidemiological, mechanistic and experimental toxicology data for pesticide risk assessment	
	Antonio F Hernández Jerez ¹ , Fernando Gil ¹ , Marina Lacasaña ² ¹ Dept. Legal Medicine and Toxicology. University of Granada School of Medicine, Granada (Spain) ² Escuela Andaluza de Salud Pública, Granada (Spain), CIBERESP, ibs. GRANADA	
	S09-2 Pesticides and Parkinson's disease – What is the evidence from epidemiological and experimental studies?	
	Martin F. Wilks Swiss Centre for Applied Human Toxicology, University of Basel, Basel, Switzerland	
	S09-3 Using large animal models and clinical research to understand organophosphorus toxicity and treatment	
	Michael Eddleston Pharmacology, Toxicology & Therapeutics, University of Edinburgh	
	S09-4 Neurodevelopmental toxicity of organophosphate pesticides: Mechanistic data and epidemiological studies	
	<u>Félix Carvalho</u> UCIBIO, REQUIMTE, Laboratory of Toxicology, Department of Biological Sciences, Faculty of Pharmacy, University of Porto, Portugal	
	S09-5 Disturbed extracellular matrix homeostasis: Identification of novel biomarkers for pesticide-induced toxicity?	
	<u>Dragana Nikitovic</u> Medical School, University of Crete, Heraklion, Greece	
10h00 - 12h00	Workshop W07: Application of human-based system toxicology for preclinical safety assessment of pharmaceuticals	
AUDITORIUM II	Chairs: Rob Stierum, The Netherlands, and Geny Groothuis, The Netherlands	



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W07-1

A systems toxicology approach for liver toxicity: the ASAT approach and infrastructure

<u>Eugene van Someren</u>¹, Jennifer Mccormack¹, Gino Kalkman¹, Janine Ezendam², Evelyn Olthof², Danyel Jennen³, Dinant Kroese¹, Rob Stierum¹

¹RAPID, TNO, Zeist, The Netherlands

²RIVM, Bilthoven, The Netherlands

³Department of Toxicogenomics, Maastricht University, Maastricht, The Netherlands

W07-2

The adverse outcome pathway for cholestatic liver injury: From mechanisms to predictive human toxicology

Mathieu Vinken

Department of In Vitro Toxicology, Vrije Universiteit Brussel, Belgium

W07-3

Development of a mechanistic biokinetic model describing hepatic bile acid handling to predict possible cholestatic effects of drugs

<u>Karl M. Weigand</u>¹, Sylvia Notenboom², Johannes H. Proost², Marola M. Van Lipzig³, Evita Van De Steeg³, Petra H. Van Den Broek¹, Rick H. Greupink¹, Frans G. Russel¹, Geny M. Groothuis²

¹Department of Pharmacology and Toxicology, Radboud university medical center, Nijmegen, the Netherlands

 $^2\mathrm{Division}$ of Pharmacokinetics Toxicology and Targeting, Department of Pharmacy, University of Groningen, Groningen, the Netherlands

³TNO, the Netherlands

W07-4

Mechanistic modeling of drug-induced cholestasis: Clinical relevance

Kim L. R. Brouwer

UNC Eshelman School of Pharmacy and Curriculum in Toxicology, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA

W07-5

Prediction of safety with human data only: A Pharma industry perspective

Mario Monshouwer

Preclinical Development & Safety, Janssen Pharmaceuticals, Beerse, Belgium

10h00 - 12h00 **AUDITORIUM III**

Workshop W08: Safety Requirements for Biosimilars

Chairs: Nurşen Başaran, Turkey, and Semra Şardaş, Turkey

W08-1

Risk Management Plans for Biosimilar Drugs

Semra Sardas

Department of Pharmaceutical Toxicology, Marmara University, Istanbul, Turkey





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	W08-2 Challanges and key points of Biologics on Efficacy
	Kimberly Greco Amgen, USA
	W08-3 Policy considerations for interchangeability and substitution
	Baerbel Grossmann Sanofi Aventis, France
	W08-4 Pharmacovigilance and traceability of biological products
	Keith Watson Biologics Strategic Development, Abbvie, Maidenhead, Berkshire, SL6 4UB
12h00 - 13h00 MADRID	EUROTOX-SOT Debate Topic: Preclinical (Safety) Toxicology Testing Predicts the Clinical Outcome Chairs: Patricia E. Ganey, USA, and Mümtaz İşcan, Turkey D-01 Preclinical (Safety) Toxicology Testing Predicts the Clinical Outcome
	Ruth A Roberts ¹ , Thomas Monticello ² ¹ ApconiX, Alderley Park ² Amgen Inc, California
12h00-14h00 POSTER AREA	Poster Session II
	Lunch Break & Exhibition Viewing
13h00 - 14h00	Organovo Industry-Sponsored Symposium / PARIS "3D Bioprinted Human Liver and Kidney Tissues for Toxicology and Disease Modeling" Organicology
	<u>Deb Nguyen</u> Senior Director, R&D, Tissue Applications, Organovo
14h00 - 15h00 AUDITORIUM I	Keynote Lecture Chair: Asuman Karakaya
	K-4 Genetics and Epigenetics of Liver Cancer
	Mehmet Öztürk Dokuz Eylül University, Izmir International Biomedicine and Genome Institute, Izmir, Turkey
15h00 - 16h00	Coffee Break, Exhibition & Poster Viewing





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Oral Communication Session 1

(10 min presentations)

Chairs: Eren Özçağlı, Turkey and Emanuela Corsini, İtaly

OSC01-009

Development of an {in vitro} inhalation toxicity test using the EpiAirway model for improved protection of human health

P. J. Hayden¹, G. R. Jackson, Jr.¹, A. Hunter¹, S. Coughlin¹, A. Maione¹, S. Letasiova², H. Kandarova²

¹MatTek Corporation, Ashland, MA, USA

²MatTek In Vitro Life Science Laboratories, Bratislava, Slovak Republic

OSC02-011

In vitro validation of in vivo assessment of toxicity and antidotes to Cleisthanthus collinus poisoning -a common suicidal phytotoxin in India

G. S. Chandra

Pharmacovigilance Laboratory For Animal Feed And Food Safety centre For Animal Health Studies, Tanuvas, madhavaram Milk Colony, chennai - 600 051. tamilnadu, India

OSC01-008

16h00 - 18h00 **AUDITORIUM I**

Measuring apoptosis in real-Time by linking luciferase fragments to annexin V

T. Riss¹, K. Kupcho¹, J. Shultz¹, J. Hartnett¹, R. Hurst¹, W. Zhou², A. Niles¹ ¹Promega Corporation, Madison, Wisconsin, USA ²Promega Biosciences, San Luis Obispo, California, USA

OSC02-006

Evaluation of read-across argumentation according to the ECHA Read-Across Assessment Framework (RAAF)

A. Richarz, E. Berggren, A. Worth European Commission Joint Research Centre, IHCP, Systems Toxicology Unit & EURL ECVAM, Ispra, Italy

OSC01-010

Exposome analysis of polyaromatic hydrocarbons

D. Sarigiannis¹, S. Karakitsios¹, E. Handakas¹, A. Gotti² ¹Environmental Engineering Laboratory, Department of Chemical Engineering, Aristotle University of Thessaloniki, Thessaloniki, Greece ²Environmental Health Engineering, Institute of Advanced Study, Pavia, Italy



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OSC02-001

Mercury Human health risk assessment among Lebanese youth

<u>H. R. Dhaini</u>¹, P. J. Obeid², S. A. Fares³, G. N. Farhat⁴, B. El Khoury², R. M. Nassif⁵
¹Department of Environmental Health, American University of Beirut, Beirut, Lebanon

²Department of Chemistry, University of Balamand, Al Kurah, Lebanon

³Hariri School of Nursing, American University of Beirut, Beirut, Lebanon

⁴Hubert Department of Global Health, Emory University, Atlanta, Georgia, USA

⁵Medical Laboratory Sciences Program, University of Balamand, Beirut, Lebanon

OSC02-003

Thresholds of Toxicological Concern - Overview of ongoing scientific developments

<u>S. Escher</u>⁴, C. Turek¹, S. Campos², J. Edwards³, , P. Ferret⁵, N. Höfer⁶, K. Kosemund⁷, J. Schnabel⁸, B. Van Ravenzwaay⁹, H. M. Hollnagel¹⁰

¹Corporate drug safety, WALA Heilmittel GmbH, Bad Boll, Germany

²Food Contact Materials, The Coca-Cola Company, Brussels, Belgium

 $^3\mbox{NIC-RD/HN}$ Toxicology and Kinetics, DSM Nutritional Products Ltd, Kaiseraugst, Switzerland

⁴Fraunhofer Institute of Toxicology and Experimental Medicine (ITEM), Hannover, Germany

⁵Pierre Fabre Dermo-Cosmétique, Toulouse, France

⁶Südzucker AG, Mannheim, Germany

⁷Global Product Stewardship, Central Product Safety, Procter & Gamble Service GmbH, Schwalbach am Taunus, Germany

⁸Givaudan Schweiz AG, Kemptthal, Switzerland

⁹BASF SE, Ludwigshafen, Germany

 $^{10}\mbox{Toxicology}$ and Environmental Research & Consulting, Dow Europe GmbH, Horgen, Switzerland

OSC02-004

Concentration-response analysis of high throughput data obtained in embryos cultured in vitro in presence of a binary mixture of two antifungal azoles (triadimefon and flusilazole)

<u>F. Metruccio</u>¹, M. Battistoni², F. Di Renzo², A. Moretto³, E. Menegola²

¹ICPS, ASST Fatebenefratelli Sacco, Milano- Italy

²Università degli Studi di Milano, Dipartimento di Bioscienze, Milano-Italy

³Università degli Studi di Milano, Dipartmento di Scienze Biomediche e Cliniche, Milano- Italy

OSC01-003

The pulmonary toxicity in nanoscale carbon black-exposed workers



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R. Zhang¹, Z. Pei², Y. Zheng³

¹Department of Toxicology, School of Public Health, Hebei Medical University, Shijiazhuang, China

²School of Medicine, China Three Gorges University, Yichang, China

³National Institute for Occupational Health and Poison Control, Chinese Center for Disease Control and Prevention, Beijing, China

OSC01-004

Toxicity of Cerium Dioxide Nanoparticles - Effects from a 90-Day Inhalation Study

<u>D. Schwotzer</u>, M. Niehof, T. Hansen, T. Tillmann, H. Ernst, O. Creutzenberg Fraunhofer Institute for Toxicology and Experimental Medicine, Hannover, Germany

OSC01-005

Co-occurring mycoestrogens formed by {Fusarium} and {Alternaria species} mediate synergistic estrogenic effects

K. Vejdovszky, K. Hahn, B. Warth, D. Marko

University of Vienna, Faculty of Chemistry, Dept. of Food Chemistry and Toxicology, Vienna, Austria

Symposium S10: Current state of scientific issues in risk assessment of endocrine disruptors and reproductive toxicants

Chairs: Hande Gürer-Orhan, Turkey, and Ana Soto, USA

S10-1

Performance Of The in vitro assays for testing endocrine disrupters

Hande Gürer Orhan

Department of Toxicology, Faculty of Pharmacy, Ege University, Izmir, Turkey

S10-2

Fetal BPA exposure, development and cancer

16h00 - 18h00 **AUDITORIUM II**

Ana M. Soto

Department of Integrative Physiology and Pathobiology Tufts University School of Medicine

S10-3

Utility of AOPs/MOAs in assessing the effects of endocrine disruptors

Alan R Boobis

Department of Medicine, Imperial College London, UK

S10-4

Reproductive toxicity of boric acid and sodium borates

Yalcin Duydu¹, Nursen Basaran², Hermann M Bolt³

¹Department of Toxicology, Faculty of Pharmacy, Ankara University, Ankara, Turkey ²Department of Toxicology, Faculty of Pharmacy, Hacettepe University, Ankara, Turkey

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	³ Leibniz Research Centre for Working Environment and Human Factors (IfADo), Dortmund, Germany
16h00 - 18h00 AUDITORIUM III	³ Leibniz Research Centre for Working Environment and Human Factors (IfADo),
	M. Long, E. C. Bonefeld Jørgensen Centre for Arctic Health & Molecular Epidemiology, Department of Public Health, Aarhus University, Aarhus, Denmark
	OSC01-002





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Size-dependent genotoxicity of gold nanoparticles in the comet assay and long-term in vivo micronucleus test

L. Hongxia

National Chengdu Center for Safety Evaluation of Drugs, West China Hospital, Sichuan University, Chengdu 610041, P.R. China

OSC01-006

Cholestatic drugs impair bile acid profiles and disposition in HepaRG cells

A. Sharanek¹, A. Burban¹, L. Humbert², D. Rainteau², A. Guillouzo¹

¹Inserm UMR991, Université de Rennes 1, Rennes, France.

²ERL Inserm U1157/UMR7203, Faculté de Médecine Pierre et Marie Curie, Site Saint Antoine, Paris, France.

OSC01-011

Introducing a new method for absolute quantification of DNA repair proteins in relation to drug development: LC-MS/MS with isotope dilution

<u>E. Coskun</u>¹, P. Jaruga¹, A. Jemth², O. Loseva², S. D. Leona¹, A. Tona³, M. S. Lowenthal¹, P. T. Reddy¹, T. Helleday², M. Dizdaroglu¹

¹Biomolecular Measurement Division, National Institute of Standards and Technology, Gaithersburg, MD, USA

²Science for Life Laboratory, Division of Translational Medicine and Chemical Biology, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden

³Biosystems and Biomaterials Division, National Institute of Standards and Technology, Gaithersburg, MD, USA.

OSC01-001

Use of a human (non- 3D equivalent) skin assay for the detection of adverse reactions and potency

S. S. Ahmed¹, X. N. Wang², A. M. Dickinson¹

¹Alcyomics Ltd, Bulman House, Regent Centre, Gosforth, Newcastle-upon-Tyne, NE3 3LS. UK

²Haematological Sciences, Institute of Cellular Medicine, Newcastle University, Newcastle-upon-Tyne, NE2 4HH, UK

OSC02-005

Nitro and oxy-PAHs derived from amazon biomass burning and their mutagenicity using different models

<u>S. Batistuzzo</u>¹, M. D. Galvão², N. D. Alves³, P. A. Ferreira⁴, S. Caumo⁵, P. D. Vasconcellos⁵, P. Artaxo⁶, S. Hacon⁷, D. A. Roubicek⁸

 $^1\mbox{Key-words:}$ Amazon region, particulate matter, reactive oxygen species and cytokines

²Programa de Pós-Graduação em Bioquímica, Universidade Federal do Rio Grande do Norte, Natal, RN, Brazil

³Faculdade de Medicina da Universidade de São Paulo, FMUSP, Brazil

⁴Universidade Federal do Pará, Campus Universitário de Altamira, Brazil

⁵Instituto de Química, Universidade de São Paulo, São Paulo, SP, Brazil

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	6Instituto de Física, Universidade de São Paulo, São Paulo, SP, Brazil 7Escola Nacional de Saúde Pública da Fundação Oswaldo Cruz, Rio de Janeiro, RJ, Brazil 8Departamento de Análises Ambientais, CETESB, São Paulo, Brazil OSC02-007 A Reliable workflow for in silico assessment of genetic toxicity and application to pharmaceutical genotoxic impurities C. H. Schwab¹, J. F. Rathman², J. Marusczyk¹, A. Mostrag², B. Bienfait¹, V. Gombar², C. Yang¹ ¹Molecular Networks GmbH, Erlangen, Germany ²Altamira LLC, Columbus, OH USA		
20h00 - 24h00		Gala Dinner - MONASTERIO MONTE CARMELO	
Wednesday, 7 Septe	mber, 2016		
08h00 - 14h00	Congress Registration	08h00 - 14h00	Exhibition
08h00 - 09h00 AUDITORIUM I	Keynote Lecture Chair: Sibel Özden, Turkey K-5 Precautionary Principles in on toxicologists Heidi Foth, Jan Wiese, Felix Ganstitute of Environmental Toxicologists	lahn	nt of chemicals and expectations Luther University Halle Saale
09h00 - 11h00 AUDITORIUM II	Symposium S11: Reflections on the application of "Chemical-Specific Adjustment Factors" (CSAF) in quantitative risk assessment Chairs: Richard Brown, Switzerland and Bette Meek, Canada S11-1 Analysis of international experience on CSAFs and potential path forward Bette Meek McLaughlin Centre, University of Ottawa, Ottawa, Canada S11-2 Harmonization of CSAFs with other research efforts including integration with AOP and MOA frameworks Alan R Boobis Department of Medicine, Imperial College London, UK S11-3 Analysis of published Chemical Specific Adjustment Factors (CSAFs) and other data derived factors: obstacles and opportunities		





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<u>**Joanne Caroline English**</u>

NSF International

S11-4

From Default Uncertainty Factors to CSAFs: Past, Present and Future in food safety

Jean Lou Christian Michel Dorne

European Food Safety Authority, Scientific Committee and Emerging Risks Unit, Parma, Italy

S11-5

Panel Discussion: Enhancing uptake in risk assessment All Speakers

09h00 - 11h00 **AUDITORIUM III**

Symposium S12: Integration of in vitro systems to predict toxicity from repeated exposure

Chairs: Miyoung Yoon, USA, and Bas Blaauboer, The Netherlands

S12-1

Overview: integrated in vitro systems for toxicity assessment from repeated exposure

Harvey Clewell

ScitoVation, Research Triangle Park, North Carolina, USA

\$12-2

In vitro models of the human airway epithelium for inhalation toxicity testing

Samuel Constant

Epithelix, Geneva, Switzerland

S12-3

Liver bioreactor and incorporation of metabolism and biokinetics into the integrated cell-based toxicity system

<u>Miyoung Yoon</u>¹, Martin Phillips¹, David Billings¹, Pergentino Balbuena¹, Joseph Shim¹, Erin Burgunder¹, Jenny Pedersen², Jeffrey Enders¹, Jeffrey Macdonald³, Melvin

Andersen¹, Harvey Clewell¹

¹ScitoVation, LLC, RTP, NC, USA

²The Hamner Institutes for Health Sciences, RTP, NC, USA

³University of North Carolina, Chapel Hill, NC, USA

S12-4

Integrated Human Multi-Organ Culture Plate for Estimating Systemic Toxicity In Vitro

<u>James M Mckim</u>¹, Heidi Baas¹, Miyoung Yoon², Harvey Clewell², Melvin E Andersen²
¹IonTox, LLC
²ScitoVation

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	S12-5 Integrating toxicodynamics and biokinetics: Use of in vitro biomarkers
	Paul Jennings Department of Physiology and Medical Physics, Medical University of Innsbruck, Austria
09h00 - 11h00 MADRID	Symposium S13: Toxicology of organophosphorus nerve agents (OPA) as the chemical weapons
	Chairs: Mahdi Balali-Mood, The Netherlands and Shahriar Khateri, The Netherlands
	S13-1 Clinical management of acute poisoning with organophosphorus nerve agents
	Mahdi Balali Mood Medical Toxicology Research Center, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
	S13-2 Environmental exposure to nerve agents
	Slavica Vučinić National Poison Control Centre, Military Medical Academy, Medical faculty University of Defense, Belgrade, Serbia
	S13-3 Nerve agents and chemical disarmament
	Shahriar Khateri Organization for the Prohibition of Chemical Weapons, OPCW
	S13-4 Promoting the work of the OPCW through toxicology societies Aristidis Tsatsakis
	Laboratory of Forensic Science&Toxicology, Medical School, University of Crete, Heraklion, Greece
	Workshop W09: Deciphering the role of the aryl hydrocarbon receptor in toxicity and its emerging functions in physiology
	Chairs: Jan Vondracek, Czechia, and Dieter Schrenk, Germany
09h00 - 11h00 PARIS	W09-1 Insights into novel functions of the dioxin receptor in cell differentiation and pluripotency
	Pedro M Fernández Salguero ¹ , Nuria Moreno Marin ¹ , Antonio Morales Hernandez ¹ , Ana Nacarino Palma ¹ , Beroe Paniagua ¹ , Ascensión Infante Campos ² , Aurea Gomez Duran ² , Inmaculada Catalina Fernández ² , Jaime M. Merino ¹ ¹Department of Biochemistry and Molecular Biology, Faculty of Sciences, University of Extremadura, Badajoz, Spain



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²Department of Pathology, Infanta Cristina University Medical Center, Badajoz, Spain W09-2 The AhR: A regulator of liver fibrosis? <u>Xavier Coumoul</u>¹, Stéphane Pierre², Aline Chevallier², Fatima Teixeira Clerc³, Ariane Ambolet Camoit², Linh Chi Bui², Anne Sophie Bats⁴, Jean Christophe Fournet⁵, Pedro Fernandez Salguero⁶, Robert Barouki⁷, Sophie Lotersztajan³, Martine Aggerbeck¹ ¹INSERM UMR-S 1124, Toxicologie Pharmacologie et Signalisation Cellulaire, Paris, ²Université Paris Descartes, Sorbonne Paris Cité, Paris, France ³IRMB, INSERM U955, Hopital Henri Mondor, 94010 Creteil, France ⁴AP-HP. Hôpital Européen Georges Pompidou. Service de Chirurgie Gynécologique Cancérologique, Paris, France ⁵AP-HP, Hôpital Necker-Enfants Malades, Service d'Anatomo-Pathologie, Paris, France ⁶Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias, Universidad de Extremadura, Badajoz, Spain ⁷AP-HP, Hôpital Necker-Enfants Malades, Service de Biochimie Métabolique, Paris, France W09-3 Small immune-modulating molecules interacting with the AhR system **Dieter Schrenk** Food Chemistry and Toxicology, University of Kaiserslautern, Germany The aryl hydrocarbon receptor (AhR) and barrier immunity **Charlotte Esser** IUF - Leibniz Research Institute for Environmental Medicine, Düsseldorf, Germany W09-5 The intersections of AhR activity and oncogenic signalling <u>Ian Vondracek</u>¹, Jana Svobodova¹, Jirina Prochazkova¹, Lenka Smerdova¹, Marketa Kabatkova¹, Miroslav Machala² ¹Institute of Biophysics, Czech Academy of Sciences, Brno, Czechia ²Veterinary Research Institute, Brno, Czechia 11h00 - 11h30 Coffee Break 11h30 - 13h30 Symposium S14: The impact of complexity on chronic disease from exposure **AUDITORIUM I** to treatment Chairs: Ali Esat Karakaya, Turkey, and Stefano Bonassi, Italy Disease networks and predictive methods for clinical data analytics Cesare Furlanello



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Predictive Models for Biomedicine & Environment, Fondazione Bruno Kessler, Trento, Italy

S14-2

Emergence of new properties in the investigation of disease aetiology: The contribution of omics

Toby James Athersuch

Department of Surgery and Cancer, Imperial College London, London, UK

\$14-3

Advances in multi-omics approaches in chronic disease

Ios Kleinjans

Department of Toxicogenomics, Maastricht University, The Netherlands

S14-4

Integrating genomic and clinical complexity for better patient outcomes

Gerrit Meijer

Netherlands Cancer Institute, Amsterdam, Netherlands

S14-5

The big challenge of complexity for national health systems. How is changing the epidemiology of chronic disease

Stefano Bonassi

IRCCS San Raffaele Pisana, Rome, Italy

11h30 - 13h30 **AUDITORIUM II**

Symposium S15: New insights into the toxicity of commonly used pharmaceuticals

Chair: Martin Wilks, Switzerland, and Heather Wallace, UK

S15-1

Toxicity of the psychotropic drugs: Role of transporters at the blood-brain barrier

Bruno Mégarbane

Department of medical and toxicological critical care, Lariboisière Hospital, INSERM U1144, Paris-Diderot University, Paris, France

S15-2

Paracetamol (acetaminophen) overdose: Are current recommendations for treatment with N-acetylcysteine satisfactory?

Simon Hugh Lynton Thomas

 $\label{lem:medical} \mbox{Medical Toxicology Centre, Institute of Cellular Medicine, Newcastle University, Newcastle NE2 4HH, UK}$

S15-3

Colchicine-related life-threatening toxicity: Risk factors and management



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"Protecting public and environmental health by understanding and communicating toxicology"

Philippe Hantson

Department of Intensive Care, Cliniques St-Luc, Université Catholique de Louvain, Brussels, Belgium

S15-4

Antidotes for direct oral anticoagulants

<u>Ismail Elalamy</u>

Hôspital Tenon UPMC Inserm UMRS-938 Paris, France

S15-5

Toxicological and pathological findings in opioid-related deaths

Henrik Druid

Department of Oncology-Pathology, Karolinska Institutet, Stockholm, Sweden

11h30 - 13h30 AUDITORIUM III

Symposium S16: Risk assessment of metals via inhalation: Challenges and new developments

Chair: Violaine Verougstraete, Belgium, and Yalçın Duydu, Turkey

S16-1

Risk assessment of aetals via inhalation: Challenges and new developments

Steven Verberckmoes

Umicore, Brussels, Belgium

\$16-2

Concepts of adversity in inhalation hazard assessment of metals

Gary R Burleson

Burleson Research Technologies, Inc., Morrisville, North Carolina, USA

S16-3

How can bioaccessibility testing add value in the inhalation hazard assessment?

Vanessa Viegas

The Cobalt Development Institute, UK

S16-4

The issue of lung overload of inert insoluble dust. How can prediction modelling contribute in risk assessment?

Len Levv¹, David B Warheit²

¹Institute of Environment and Health, Cranfield University, UK

²1Chemours Company

S16-5

The human equivalent concentration: A valid approach in extrapolating animal data to the human situation





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	I
	Adriana Oller NiPERA, Inc, Durham, NC, USA
	S16-6 Closing remarks Steven Verberckmoes Umicore, Belgium
	Workshop W10: Design and interpretation of testing according to the extended one generation reproductive toxicity study for regulatory use Chair: René Hunziker, Switzerland, and Bruno Hubesch, Belgium
	W10-1 The extended one generation reproduction toxicity study: Expectations for the new guideline, opportunities, threats
	Aldert Piersma, Andre Muller National Institute for Public Health and the Environment RIVM, Bilthoven, The Netherlands
	W10-2 First experiences from testing according to the EOGRST method
	Ivana Fegert Regulatory Toxicology Pesticides, BASF SE, Ludwigshafen, Germany
11h30 - 13h30 MADRID	W10-3 Changes introduced with the new OECD 443 method and implications on the toxicological interpretation
	Jochen Buschmann Department of Reproductive Toxicology, Fraunhofer Institute for Toxicology and Experimental Medicine, Germany
	W10-4 Using EOGRTS under REACH, BPD and CLP
	Hannele Huuskonen European Chemicals Agency, Helsinki, Finland
	W10-5 The role of the EOGRTS in product safety assessment in industry René Hunziker Dow Europe GmbH, Cefic LRI, The Switzerland
13h30 - 14h00 AUDITORIUM I	Closing Ceremony and Awards Presentation