



## JOINT FAO/WHO MEETING ON PESTICIDES RESIDUES (JMPR) - 9-13 MAY 2016

### *List of experts*

- **BOOBIS Alan**

Alan Boobis is currently Professor of Biochemical Pharmacology and Director of the Toxicology Unit (funded by PHE & DH) in the Faculty of Medicine at Imperial College London. He has been a member of Imperial College London for almost 40 years. His research interests include mechanistic toxicology, chemical risk assessment and food safety. He has published around 230 original research papers. He is a member of several national and international advisory committees, the Committee on Toxicity (chair), the WHO Study Group on Tobacco Product Regulation (TobReg), JECFA (veterinary residues – co-chair) and JMPR (alternating co-chair). He has been a member of the UK Advisory Committee on Pesticides, Committee on Carcinogenicity, the EFSA CONTAM Panel and the EFSA PPR Panel. He is a member and a past chairman of the Board of Trustees of ILSI (International Life Sciences Institute) HESI, vice-president of ILSI Europe and chair of ILSI. Awards include fellowship of the Society of Biology and the British Toxicology Society (BTS), the BTS John Barnes Prize Lectureship, honorary membership and Merit Award of EUROTOX, the Royal Society of Chemistry Toxicology Award and Officer of the British Empire (OBE).

- **BUSSCHERS Marloes**

Marloes Busschers studied Biology at Wageningen University where she graduated in 1994. For 3 years she worked as a Study Director acute and short term toxicity studies at Notox in 's Hertogenbosch (now WIL Research). Thereafter she worked for 6 years at TNO in Zeist, as a toxicologist and risk assessor human toxicology. In 2005 she joined Ctgb, the Dutch Board for the Authorisation of Plant Protection Products and Biocides, as a toxicologist Human Risk Assessment. She is responsible for human toxicology and risk assessments for operators, workers, bystanders and residents, and is participating as an expert in the EFSA expert meetings. She was advisory member of the Dutch Health Councils temporary committee Residents and Plant Protection Products. She is a registered toxicologist at the Dutch Society for toxicology and EUROTOX.

- **CERNIGLIA Carl<sup>1</sup>**

Dr. Carl E. Cerniglia is a Senior Biomedical Research Service (SBRS) Research Microbiologist, Director of the Division of Microbiology at the National Center for Toxicological Research (NCTR), US Food and Drug Administration (FDA) and elected member of the American Academy of Microbiology. He is also an adjunct Professor in the Department of Pharmacology and Toxicology at the University of Arkansas Medical Sciences, Little Rock, AR. Dr. Cerniglia leads a team at the NCTR that has impacted public health in a variety of research areas including food safety, antimicrobial resistance, environmental biotechnology, nanotechnology, women's health and human intestinal microbiome-host interactions. Dr. Cerniglia's research has resulted in over 400 scientific publications and numerous book chapters and review articles. His research has been frequently highlighted in the scientific and popular press. Dr. Cerniglia has made more than 400 invited presentations at national and international conferences and meetings and is also an ASM Foundation of Microbiology lecturer. The research achievements of Dr. Cerniglia has been recognized by national and international awards from the Food and Drug Administration, American Pharmaceutical Association, International Society of Toxicity Testing, American Society for Microbiology, and American Academy of Microbiology and U.S. Department of Health and Human Services. Dr. Cerniglia was recently awarded the Silver Medal by the World Health Organization for outstanding scientific contribution to the Joint Expert Committee on Food Additives (JECFA) in advancing science-based risk assessments on evaluating the effects of veterinary drug residues and other food contaminants on the human intestinal microbiome, the FDA Lifetime Achievement Award, the FDA Commissioner's Award Merit, the DHHS Outstanding Leader Award in providing mentoring, training and career advancement opportunities to employees in a diverse workforce and Distinguished Alumnus Award at North Carolina State University.

- **CORDIER Sylvaine<sup>2</sup>**

Dr. Cordier, epidemiologist, Research Director Emeritus at the French National Institute of Health and Medical Research (INSERM U1085) in Rennes, former head of the team "Epidemiological Research on Environment and Reproduction". She has long been working on the effects of various occupational and environmental pollutants on reproduction and child development, and cancer. The focus of her current research is on developmental toxicity, both prenatal and postnatal, following exposures during pregnancy with particular reference to the effects of exposure to solvents, heavy metals, water disinfection by-products and pesticides.

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<sup>1</sup> Did not attend the meeting.

<sup>2</sup> Did not attend the meeting, but her valuable contributions to the methodological setup of the epidemiological evaluation are gratefully acknowledged.

- **EASTMOND David**

Dr David A. Eastmond is a professor and chair of the Department of Cell Biology & Neuroscience at the University of California, Riverside. He received his B.S. and M.S. degrees from Brigham Young University in Provo, Utah and his Ph.D. from the University of California, Berkeley. After serving as a Hollaender Distinguished Postdoctoral Fellow, he joined the faculty at UC Riverside where he is actively involved in research and teaching. His research focuses on the mechanisms involved in the toxicity and carcinogenesis of environmental chemicals and he has published more than 120 scientific articles in this area.

Dr Eastmond served as the president of the Environmental Mutagen Society and as a Jefferson Science Fellow in the US State Department. He has also participated on a variety of advisory panels related to chemical mutagenesis, carcinogenesis and risk assessment including panels for the US Environmental Protection Agency (EPA), the US Food and Drug Administration, the National Toxicology Program, the International Programme for Chemical Safety, the International Agency for Research on Cancer, the Organisation for Economic Cooperation and Development, and Health Canada. He currently serves as a member of the Carcinogen Identification Committee for the California EPA and the Chemical Assessment Advisory Committee for the US EPA.

- **HARTWIG Andrea<sup>3</sup>**

Pr. Andrea Hartwig received her Diploma in Chemistry in 1984, finished 1987 her PhD thesis and 1996 her Habilitation in Biochemistry at the University of Bremen. In 1998 she became Professor for Food Chemistry at the University of Karlsruhe (TH) and 2004 Full Professor for Food Chemistry at the Technical University of Berlin. Since 2010 she is Full Professor and Chair for Food Chemistry and Toxicology at the Karlsruhe Institute of Technology (KIT). The main research area focuses on the impact of carcinogenic metal compounds including metal-based nanomaterials as well as trace elements and bioactive food components on genomic stability. Since 2007 she is Chair of the German MAK Commission and member of the Scientific committee on Occupational Exposure Limits (SCOEL).

- **JACOBS Miriam**

Dr Miriam Jacobs is a Principal Toxicologist in the Centre for Radiation, Chemicals and Environmental Hazards; Public Health England. She has extensive (20 years+) experience in the hazard and risk assessment of pesticides and veterinary medicines, chemicals, food additives and contaminants. Specialisms include endocrine disruption, molecular toxicology, reproductive toxicology and epigenetic mechanisms, gender and pesticides/chemicals, metabolism, uncertainty analysis, and the development of

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<sup>3</sup> Attended part of the meeting only.

alternatives to animal testing, including computational toxicology. For the last 10 years she has focused particularly on international chemicals safety and regulatory improvements to better protect public health, and this includes serving on several Organisation for Economic Cooperation and Development (OECD) expert groups, including chairing the OECD Validation Management Group – non animal (VMG-NA), and as a bureau member of the Endocrine Disruptor Testing and Assessment Advisory Group (EDTA-AG). One of her recent publications on addressing metabolism needs in regulatory approaches won a best ALTEX paper award. In 2016 Miriam will also be chairing a new OECD expert group on Integrated approaches to testing and assessment of non-genotoxic carcinogens. As a toxicologist she has also worked for the European Food Safety Authority, including the scientific checks of pesticide evaluation reports and development of evaluation approaches, the European Commission Joint Research Centre, the OECD and advised the UNDP. She continues to serve on several research and governmental Scientific Advisory Boards, Steering Groups and Study Management Teams (UK, Europe, US, Japan) and has been on the expert rosters for the Joint FAO/WHO Expert Committees on Food Additives and Pesticide Residues since 2011.

- **LENTERS Virissa<sup>4</sup> (assisting)**

Virissa Lenters is a researcher in environmental epidemiology at the Norwegian Institute of Public Health and at the Institute for Risk Assessment Sciences, Utrecht University. She has (co-) authored 24 peer-reviewed articles and has an H-index of 10. Her doctoral thesis research focused on the role of environmental contaminant exposures on reproductive and child health. Her research interests include applying and evaluating statistical approaches for variable selection and multi-pollutant modelling. Her work has also included studying the health effects of microbial exposures, asbestos, electromagnetic fields, and air pollution within several EU and nationally funded projects. Additionally, she contributed to a formal risk assessment of asbestos exposure and lung cancer for the Health Council of the Netherlands.

- **MACLACHLAN Dugald**

Dr Maclachlan is director of residues and microbiology policy in the Exports Division of the Australian Federal Department of Agriculture and Water Resources. He has worked in this area since 2001 and it is a role that involves risk assessment relating to pesticides, veterinary drugs and contaminants. He is involved in the work of Codex, leading Australian delegations to Codex Committee on Residues of Veterinary Drugs in Food as well as to Codex task forces on antimicrobial resistance and animal feeding. A particular interest has been in models for predicting pesticide residues in crops and the potential for

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<sup>4</sup> Did not attend the meeting.

their transfer from feed to animal commodities. Dr MacLachlan is a chemist by training and is the author of 39 peer reviewed papers and has served since 2000 as a member of the FAO/WHO Joint Meeting on Pesticide Residues. He has contributed to the drafting of various OECD test guidelines and guidance documents.

- **MORETTO Angelo**

Pr. Angelo MORETTO was medical and research scientist from 1997 to 2006 in the Department of Environmental Medicine & Public Health at the University of Padua in Italy. From 2002 to 2006, he was Head of the Laboratory of Industrial Toxicology in the Department of Environmental Medicine & Public Health at the University of Padua in Italy. Since 2006, he is Associate Professor of Occupational Medicine in the Department of Biomedical and Clinical Sciences at the University of Milan in Italy. Since 2006 he is also Director of the International Centre for Pesticides and Health Risks Prevention at “Luigi Sacco” Hospital of the ASST Fatebenefratelli Sacco, in Milan, Italy. His main interests are in the pathogenesis and mechanisms of organophosphate induced-delayed polyneuropathy, in the cholinergic toxicity and the metabolism of organophosphates, in other toxic neuropathies, in the neurotoxic profile of some pesticides, in developmental toxicity, and in combined exposures. He also studies occupational, accidental and non-occupational exposure to pesticides and other chemicals. He is a member of many international committees for the risk assessment of exposure to chemicals, in particular pesticides, and for the improvement, harmonization and innovation of risk assessment methods. He is Referee of research projects for several governments and institutions. He has been an invited speaker to several meeting related to toxicology and chemical risk assessment. He has received several research grants from National and International bodies, related to toxicology, risk assessment and toxicology training. He published about 100 papers in peer-review journals.

- **O’MULLANE Matthew**

Dr Matthew O’Mullane is currently the Director of the Chemical Review Program at the Australian Pesticides and Veterinary Medicines Authority. He has held senior positions in regulatory toxicology within the Australian government for over 15 years and has extensive experience in the risk assessment of pesticides and veterinary medicines, food additives, contaminants, processing aids and novel foods (including food derived from GM crops). Matthew has been an expert adviser to the JMPR since 2011. Prior to these roles, Matthew spent four years as a research scientist in the fields of protein biochemistry, cell biology and preclinical drug development. He has a PhD from the University of Wollongong, Australia, specialising in the role of proteases in programmed cell death.

- **PIERSMA Aldert**

Dr Aldert H. Piersma is a professor of reproductive toxicology at the Institute for Risk Assessment Sciences (IRAS) of Utrecht University in the Netherlands since 2007, and is employed as a senior scientist at the National Institute for Public Health and the Environment (RIVM) in the Netherlands since 1988. His work combines fundamental research in reproductive toxicology with advisory work in national and international advisory committees, such as of the Dutch Health Council, EU, OECD and WHO. Main theme is the innovation of hazard and risk assessment methodology in reproductive and developmental toxicology, including the design and implementation of animal-free alternative methods and molecular approaches towards mechanism of action based understanding of toxicity. He is known for his work on alternatives to animal testing in developmental toxicology, using animal-free assays with embryonic stem cell lines, as well as zebrafish and rat embryos. He applies molecular approaches to understand mechanisms of action and to identify adverse outcome pathways, facilitating the understanding and implementation of alternative methods. He also invests in the design of alternative testing strategies, combining assays to enhance the prediction of developmental toxicity and to reduce and replace animal use in chemical and pharmaceutical risk assessment. He published over 150 original scientific papers, over 200 abstracts and around 10 book chapters. His H-index is 34. He is associate editor of Reproductive Toxicology.

- **SHAH Prakashchandra**

Dr P. V. Shah is a branch chief of Chemistry, Inerts and Toxicology Assessment Branch (CITAB) in the Registration Division of Office of Pesticide Programs of US Environmental Protection Agency. He received his MS and Ph.D degree from North Carolina State University, Raleigh, NC. His research focused on dermal absorption and metabolism. He has authored approximately 25 scientific publications in peer reviewed journals, several book chapters and review articles in the area of dermal absorption. He joined OPP in 1997 as a toxicologist in the Health Effects Division. In HED, he served as a toxicologist, acting team leader, branch senior scientist and Acting Branch Chief of the Registration Action Branch. He is serving on various HED peer review committees including Cancer Assessment Review Committee. He has experience in reviewing toxicological submitted in support of registration of pesticide and conducting human health risk assessment. Prior to joining OPP, he worked as a Senior Industrial Toxicologist at Hoffmann-La Roche Inc., Nutley, New Jersey. He has served as advisor to FAO/WHO Joint Meeting on Pesticides Residues (JMPR) for more than ten years.

- **SMITH Rachel<sup>5</sup> (assisting)**

Dr Smith is a postdoctoral Research Associate in environmental epidemiology within the Department of Epidemiology and Biostatistics, where she also completed her PhD. Her PhD focussed on exposure to water disinfection by-products during pregnancy in the Born in Bradford birth cohort. Her academic background covers both biological and social disciplines, with a BA in Human Sciences (St John's College, Oxford) and an MSc in Epidemiology (Imperial College London). Since completing her PhD she has worked on both the COSMOS and SCAMP cohort studies which are investigating potential effects of exposure to radio-frequency electromagnetic fields (from mobile phones and other wireless devices) on adult health and children's cognition respectively. At present she is working on the Traffic Pollution and Health in London project, examining the relationship between traffic-related noise and air pollution and risk of adverse reproductive outcomes (e.g. low birth weight and pre-term delivery). Her research interests and experience cover a range of environmental exposures which we commonly encounter in our daily lives: water disinfection by-products, electromagnetic fields (including from mobile phones and wireless devices), air pollution, and noise. She also has a particular interest in reproductive health.

- **TICE Raymond**

Dr. Raymond Tice has a Ph.D. in Biology (1976) from Johns Hopkins University. He was employed by the Medical Department at Brookhaven National Laboratory (Upton, NY) from 1976-1988 and by Integrated Laboratory Sciences, Inc. (Durham, NC) from 1988 to 2005; his final position was as Senior Vice-President for Research and Development. He joined the US National Institute of Environmental Health Sciences in 2005 as the Deputy Director of the NTP Interagency Center for the Evaluation of Alternative Toxicological Methods. In 2009, he became the Chief of the Biomolecular Screening Branch responsible for coordinating activities in the US Tox21 consortium. He retired from US Federal service in January, 2015. He has served as President of the US Environmental Mutagen Society and as Vice-President of the International Association of Environmental Mutagen Societies. He is the recipient of four NIH Director's Awards and the EMS Alexander Hollaender Award in recognition of outstanding contributions in the application of the principles and techniques of environmental mutagenesis to the protection of human health. He has served on over 50 international expert panels and committees related primarily to genetic toxicology, published 160 scientific papers and book chapters and edited 4 symposia proceedings. Dr. Tice has served as a member of the editorial boards of Mutation Research and Environmental and Molecular Mutagenesis.

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<sup>5</sup> Did not attend the meeting.

- **TOLEDANO Mireille**

Professor Toledano is a senior lecturer in epidemiology at Imperial College London and an investigator of the MRC-ÂHPA Centre for Environment and Health specialising in environmental and spatial epidemiology. She is currently a Fellow of the Higher Education Academy and a co-author of the Oxford Handbook series 'Epidemiology for Clinicians'.

Much of her work to date has focused on early life environmental exposures, including leading the environment theme of the new UK-wide Life Study and collaborative projects with various birth cohorts across Europe, assessing exposure at individual level through questionnaire data, biomarkers, and global metabonomic profiling. She also has over 10 years expertise in spatial epidemiology and the use of routinely collected data and geographical information systems (GIS) for small area health studies at the SAHSU. Her work in this field has included studies of birth outcomes and water disinfection by-products, waste incineration, and air and noise pollution, as well as investigations of cancer trends and clustering, in particular for primary liver tumours. Her special interest is in the field of non-ionizing radiation epidemiology, having worked on several major projects including national studies of adult cancers near overhead power lines and childhood cancers in proximity to mobile phone base stations. She currently lead the UK-arm of COSMOS, an international long-term cohort study of adult mobile phone users.

- **YOSHIDA Midori**

Midori Yoshida DVM PhD arrived at a commissioner of Food Safety Commission of Japan (FSCJ) Cabinet Office in 2015. FSCJ is the responsible organization for risk assessment of food and chemicals in food in Japan. She previously worked for National Institute of Health Science, the Ministry of Health Labor and Welfare as a section chief of Division of Pathology, Biological Safety Research Center. She started risk assessment of pesticides at FSCJ about 10 years ago. She has also attended JMPR as a monographer for 8years. She has over 30-year carrier as a toxicologic pathologist after the graduation of Tottori University. Her main research targets are mechanisms of toxicity in reproductive system and carcinogenicity induced by chemicals.

- **ZARN Jürg**

Jürg Zarn received a PhD in biochemistry in 1992 and in the following years he worked in molecular oncology. Since 1996 he served for Swiss health authorities as a general toxicologist in the area of risk assessment of chemicals in food including pesticide residues. He is now head of the Scientific Evaluation



Sector of the Swiss Federal Food Safety and Veterinary Office FSVO. In recent years, a focus of his interest was on conceptual issues regarding the role of the toxicity study design for the dietary risk assessment of pesticides. Since 2004 he worked as an expert for the “FAO/WHO Joint Meeting on Pesticide Residues” and since 2014 he is member of the German “BfR Committee for Pesticides and Their Residues”.

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