Meeting to update
Chapter 5 "Dose-response assessment and derivation of health-based guidance values" of the monograph EHC 240: Principles and methods for risk assessment of chemicals in food
Geneva, Switzerland, 25 to 29 March 2019

WHO Experts participating in the meeting

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List of Experts

The following list of experts is proposed for the meeting. Please find below their bio-sketches. If you have any comments, please contact us at jecfa@who.int

ABRAHANTES José Cortinas
European Food Safety Authority
Italy
José Cortinas Abrahantes has been working in EFSA since 2010 in the Assessment and Methodological Support unit (AMU), in which he provides horizontal support on statistical matters to all units in EFSA. He has been involved in the update BMD guidance published in 2017. He is experienced statistician, working on statistical modelling for more than 25 years He received his university degree in 1992 from the University of Havana in Mathematics. In 1998 he was awarded a scholarship from the Belgian government (VLIR) to complete a master in Hasselt University (Belgium) on "Biostatistics" and finished it in 1999. In 2004 he completed also a PhD in Biostatistics from the same university. During the period 2000 - 2010 he taught several course, among them "Regression", "ANOVA" and "Modelling infectious diseases".

AKIHIKO Hirose
National Institute of Health Sciences
Japan
Dr. Akihiko Hirose is a Director of Division of Risk Assessment at National Institute of Health Sciences, Japan. He received a Ph.D. in physiological medicine from Tohoku University in 1990. He is a current Secretary General of the Japanese Society of Toxicology (2018-2020). He is an expert in risk assessment of industrial chemicals or environmental contaminants in drinking water, foods and medicines. He is regularly working on the chemical risk assessment of industrial chemicals as an expert member for the committee under the Japanese Chemical Substance Law, and has attended some Working Party projects under the OECD Chemical Safety Programs. He is an member of the Expert Committee of Chemicals and Contaminants, Japanese Food Safety Commission as an expert of dose response assessment. He is also a member of the committee for the rolling revision of drinking water quality standards in Japan, and an expert for revision of the WHO Guideline of Drinking Water Quality. His current emerging research fields are on the development of QSAR or TTC approach for chemical safety management. As for the fields on the drug quality controls, he has been involved in the ICH guidelines working groups for establishing chemical impurities limits.

AUERBACH Scott
National Institute of Environmental Health Sciences
USA
Dr. Auerbach received a dual BS from The Pennsylvania State University in Physiology and Biochemistry/Molecular Biology in 1998. He then went on to receive his Ph.D. in Pharmacology from the University of Washington in 2004. From 2005 to 2007 Dr. Auerbach was a postdoctoral fellow at Duke University and then NIEHS where he undertook genetic studies of human pulmonary fibrosis. Subsequently he went on to a fellowship at the National Toxicology Program. Dr. Auerbach became a staff scientist at the National Toxicology Program in 2009 and became a Diplomat of the American Board of Toxicology the same year. He is currently the Toxicoinformatics Group Leader in the Biomolecular Screening Branch of the National Toxicology Program where he oversees a group of developers and analysts working in SAR, IVIVe, dose response modeling, mixtures, data mining, toxicogenomics and toxicity prediction. The overall objective of his research is to facilitate the incorporation of molecular /high dimensional data into toxicological assessment using data science and artificial intelligence techniques with the ultimate goal of increasing efficiency in toxicology testing. He is responsible for the maintaining the world's largest integrated toxicogenomic resource, the NTP's DrugMatrix Database and its companion automated analysis and reporting tool, ToxFX. Recently he has led the NTP's rapid response to the Elk River Chemical Spill, guided the redevelopment of the genomic dose-response software, BMDExpress and led the development of the NTP's proposed approach to genomic dose-response modeling.

BARLOW Sue
Brighton, East Sussex
UK
Sue Barlow has been involved in risk assessment of chemicals and food for many years. In her early career in academia she worked in reproductive/developmental toxicology research and taught pharmacology. She then worked in regulatory toxicology in the UK Department of Health and became chief scientist. Since 1996, she has been an independent consultant in toxicology. She has been a temporary adviser to JECFA since 2005 and a member of the WHO Expert Advisory Panel on Food Safety since 2012. She was involved in the preparation of the 2009 FAO/WHO guide to JECFA and JMPR "Principles and Methods for the Risk Assessment of Chemicals in Food" and was a co-editor of the 2002 IPCS-WHO/ILO/UNEP "Global Assessment of the State-of-the Science of Endocrine Disrupters". She was a member of the Veterinary International Cooperation on Harmonisation Safety Working Group. She has been an evaluator and reviewer for research proposals and projects funded by the European Union. She was a member of the European Commission's Scientific Committee on Food for 10 years. From 2003-2008 she chaired the European Food Safety Authority's Scientific Panel on Food Additives, Flavourings, Processing Aids and Materials in Contact with Food and was a member of EFSA's Scientific Committee from 2003-2012.

BHAT Virunya
NSF International
USA
Dr. Virunya Bhat is a Principal Toxicologist at NSF International, an independent, global public health organization and a WHO Collaborating Centre on Water, Indoor Environment and Food

Safety. For 20 years, she has assessed consumer product safety, food and drinking water quality, and health risks of industrial and environmental chemicals. Her expertise includes critical interpretation of toxicology and exposure data, dose-response modeling, mode of action analysis, and the subsequent derivation of acceptable exposure levels or margins of safety. Her contributions to the field of chemical risk assessment, particularly with benchmark dose modeling and replacing default uncertainty factors with chemical-specific toxicokinetics and mode-of-action data, have resulted in several peer-reviewed publications, research awards, and invited service as an international expert. Virunya has a PhD degree in environmental toxicology from the University of California in Riverside, a MS degree in pharmacy from the Ohio State University and is a Diplomate of the American Board of Toxicology. She is an active member of the Society of Toxicology and was recently elected to the executive Council as a Councilor (2019-2022).

BOWERS John
U.S. Food and Drug Administration
USA
Mr. John Bowers is a Statistician with the U.S. Food and Drug Administration's Center for Food Safety and Applied Nutrition (CFSAN). Prior to joining the FDA in 1990, he worked in the Office of Risk Analysis, Health and Safety Research Division of Oak Ridge National Laboratory, Oak Ridge TN from 1986 until 1990. He received his M.A. in Statistics from the University of Maryland, College Park, in 1995. At CFSAN, Mr. Bowers provides statistical assistance and consultation across several program areas and has worked on petition reviews and quantitative risk assessments of both chemical and microbiological hazards. He contributed to JECFA risk assessments on aflatoxin B1 and M1 in 1999 and 2001 and between 2003 to 2011 was a member of several Joint FAO/WHO Expert Consultations on risk assessment of Vibrio spp. in seafood and methodology for risk characterization of microbiological hazards. He has worked with academic collaborators on research proposals and studies to progress the science and risk assessment of Vibrio spp. Recently, he contributed to FDA's review of a food additive petition for PHOs and the development of microbiological criteria and testing standards for agricultural water under the Food Safety Modernization Act.

BOTTEX Bernard
European Food Safety Authority
Italy
Bernard Bottex has been working in EFSA since 2007 as Scientific Officer in the Scientific Committee and Emerging Risks Unit. He coordinated the Working Group of the Scientific Committee who developed a guidance document on the use of the benchmark dose (BMD) approach in risk assessment (2009), as well as the working group who updated the above guidance based on the experience accumulated in BMD modelling and feedback received from the EFSA Panels (updated guidance published in 2017). Bernard Bottex has a Master of Science in Agronomy Engineering from AgroParisTech and is specialised in plant protection and environment.

BRONSON Roni
Health Canada
Canada
Ms. Bronson has lead a team of toxicologists in the Chemical Health Hazard Assessment Division of the Bureau of Chemical Safety, in the Food Directorate at Health Canada since

2011. The team conducts human health risk assessments of food contaminants, natural toxins, processing induced chemicals and food contact materials. Ms. Bronson joined Health Canada in 2002 after obtaining her BSc Honours from the University of Guelph with a specialization in Biomedical Toxicology, gaining over a decade of extensive experience as a regulatory toxicologist. She has experience conducting benchmark dose modelling (BMDS and PROAST) for the risk assessment of chemicals in food for Health Canada and the JECFA monographs for cyanogenic glycosides and inorganic mercury. She has participated in various benchmark dose modelling workshops and has organised modelling training sessions within Health Canada.

CARRINGTON Clark
U.S. Food and Drug Administration (Retired)
USA
Dr. Carrington received a PhD in Pharmacology from Duke University in 1984. After a brief research career studying the neurotoxicology of organophosphorous compounds, he began a 25 year career at the US Food and Drug Administration in the branch concerned with regulating chemical contaminants in food. Besides providing technical support, Dr. Carrington also had direct involvement in formulating regulatory policy. Since retiring from the USFDA in 2015, Dr Carrington still does some occasional pro bono consulting work in the area of Food Toxicology.

CRETON Stuart
Food Standards Australia New Zealand (FSANZs)
Australia
Dr Stuart Creton is a Senior Toxicologist in the Chemical Safety and Nutrition Science section at Food Standards Australia New Zealand (FSANZ), where he is responsible for the risk assessment of food additives, processing aids, contaminants and other components. Stuart gained a PhD in molecular toxicology from Imperial College London in 2004, following which he spent over 3 years as a toxicologist in the Chemical Risk Assessment Unit at the UK Food Standards Agency. He then worked at the UK National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), where he led a programme of work collaborating with the chemicals industry, regulators and academia to improve the scientific basis and efficiency of chemical risk assessment while reducing reliance on animals and/or improving animal welfare. Stuart worked as a senior toxicology advisor at the New Zealand Environmental Protection Authority from 2012 until he joined FSANZ in 2016, gaining experience in the safety evaluation of agricultural and veterinary chemicals. Stuart is a Diplomate of the American Board of Toxicology.

DAVIS Allen
U.S. Environmental Protection Agency
USA
Allen Davis graduated with an M.S.P.H. in Environmental Health Sciences with a concentration in Environmental Toxicology from the University of Alabama at Birmingham School of Public Health and has worked at the US EPA for 15 years. He currently serves as a health scientist and risk assessor in the National Center for Environmental Assessment and primarily works on projects implementing benchmark dose modeling (BMD) methods in risk assessments. Recently, he has co-led the effort to release EPA's Benchmark Dose Software (BMDS, version 3.0), which implements Bayesian model averaging for quantal endpoints along with multiple improvements to the user interface, and is currently working on developing continuous model averaging methods with scientists from EPA and NIOSH as well as developing a web-based

version of BMDS. Mr. Davis is also the training coordinator for the BMDS program and has led over 30 domestic and international training sessions on the application of BMD methods in human health risk assessments. Mr. Davis additionally works in EPA's Integrated Risk Information System and has served as chemical manager on multiple assessments, including chloroprene, trimethylbenzenes, inorganic arsenic, and perfluorobutanoic acid.

EDLER Lutz
Division of Biostatistics of the German Cancer Research Center (Retired)
Germany
Lutz Edler has been senior biostatistician for 31 years in the Division of Biostatistics of the German Cancer Research Center, chair from 1991 until retirement in 2010, with responsibilities for mathematical modelling, statistical data analysis, human and animal carcinogenesis and risk assessment, design and analysis of animal experiments and clinical trials, and general statistical consulting. He published, often as co-author, more than 600 scientific articles including 290 peer reviewed papers and was editor of the Biometrical Journal from 2012-2015. He has been member of all major statistical societies and received honorary lifetime membership awards in 2014 and 2016 from the International Biometric Society and the International Society of Clinical Biostatistics. He was member of the Ethics Committee of the University of Heidelberg 2006-2018. After membership in several scientific advisory panels of the US EPA from 2002-2009 he was member of the Panel on Contaminants in the Food Chain of EFSA 2009-2018 and chaired several working groups including Fusarium mycotoxins. He was member of expert groups on contaminants and mycotoxins of the Federal Institute for Risk Assessment of Germany and served JECFA/WHO as expert 2002-2005 for food risk assessment and JECFA/WHO/FAO at their 83th Meeting in 2016.

HABER Lynne
University of Cincinnati
USA
Dr. Lynne Haber is an Associate Professor in the Risk Science Center, Department of Environmental Health, at the University of Cincinnati. She has more than 20 years of experience in risk assessment and methods development. She written and reviewed (as a contractor) 100's of assessment documents for multiple government agencies, including the U.S. Environmental Protection Agency (EPA) and Consumer Product Safety Commission (CSPC), Health Canada, and State Agencies, as well as for private sponsors. She has authored/coauthored more than 40 peer-reviewed publications of chemical assessments or risk assessment methods, and more than 10 book chapters. She has focused on improving methods for dose-response evaluation and mode of action evaluation, and her first-author publications include a recent review on benchmark dose (BMD) modeling, and the chapter on noncancer risk assessment in Patty's Toxicology. She has served as a peer reviewer or advisory panel member for the U.S. EPA, Health Canada, the U.S. National Research Council (NRC), and other agencies. She is a Diplomate of the American Board of Toxicology (DABT). She is active in teaching basic and advanced risk assessment methods to diverse groups of risk assessors and at professional society meetings. Dr. Haber received her PhD from the Massachusetts Institute of Technology

(MIT) and was a scientist at TERA (Toxicology Excellence for Risk Assessment) prior to joining the University of Cincinnati.

HALLDORSSON Thorhallur Ingi
University of Iceland, Faculty of Food Science and Nutrition
Iceland
Professor at the Faculty of Food Science and Nutrition at the University of Iceland
Thorhallur also holds an external position as senior scientist at the Division of Health Surveillance and Research, Statens Serum Institut in Copenhagen and is a member of the EFSAs Scientific Committee (2015-2018 and 2018–2021). With background in Chemistry (BSc), Applied Mathematics (MSc) and Public Health Sciences (PhD) his research has mostly been focused within the fields of Nutritional and Environmental Epidemiology. His research also covers the development of dietary assessment methods for use in epidemiological studies and nutrition surveys. Since 2007 Thorhallur has published over 100 papers in international peer-reviewed international journals.

POUZAUD François
French Agency for Food, Environmental and Occupational Health & Safety
France
François Pouzaud is a scientific project manager working for the French Agency for Food, Environmental and Occupational Health & Safety (ANSES) since 2011. In 2004, he received a PhD in Pharmaco-Toxicology from the University of Paris-Descartes with a specialisation in development of in vitro alternatives methods in toxicology. He gets a postdoctorate in AgroParistech in Paris (2007) with specialisation in epidemiology and risk assessment. He has been working since 15 years in research and development in toxicology and regulatory toxicology. He contributes to several scientific reports on health risks related to several substances in the field of air pollution, endocrine disrupters and chemicals in food or in consumer products. His work is focused also on the dose-response assessment and the use of benchmark dose approach to deriving health-based guidance values (indoor air quality guideline and toxicity reference value). He is currently managing scientific projects in the field of Endocrine Disruption in the chemical risk assessment unit dealing with chemicals in consumer products and with the REACh regulation and CLP and he coordinates working groups in endocrine disrupters. His topics studied include health effects of endocrine disrupters (current), development of indoor air quality guideline and toxicity reference values (current), benchmark dose approach (current), chemicals risk assessment in consumer products.

RICHARDSON David B.
University of North Carolina
USA
DAVID B. RICHARDSON, PHD is Associate Professor of Epidemiology in the School of Public Health at the University of North Carolina at Chapel Hill. His research focuses on the health effects of occupational and environmental exposures, particularly with regards to carcinogens. He has conducted studies of cancer among workers at U.S. Department of Energy

facilities, among the Japanese survivors of the atomic bombings of Hiroshima and Nagasaki, and among industrial cohorts in the US and Europe. He has served as a visiting scientist at the World Health Organization's International Agency for Research on Cancer, the French Institute for Radiological Protection and Nuclear Safety, and at the Radiation Effects Research Foundation in Hiroshima, Japan. Since 2007, he has served as Director of the National Institute of Occupational Safety and Health-funded training program in occupational epidemiology at the University of North Carolina-Chapel Hill. In addition, he is a core faculty member at the Injury Prevention Research Center at the University of North Carolina, and a member of the Exposure and Biomarkers Research Core at the University's Center for Environmental Health and Susceptibility. He is an Associate Editor of the journals Occupational and Environmental Medicine, American Journal of Epidemiology and Environmental Health Perspectives, is a member of the President's Advisory Board on Radiation and Worker Health, has served on the U.S. Environmental Protection Agency's Science Advisory Board. Dr. Richardson's current research includes international occupational cohort studies, and development of novel methods for occupational and environmental epidemiology. These research activities have been supported by grants from the US National Institute for Occupational Safety and Health and the US National Cancer Institute. Dr. Richardson received a Ph.D. and M.S.P.H., both in epidemiology, from the University of North Carolina.

RUDZOK Susanne
Federal Institute for Risk Assessment (BfR)
Germany
German Federal Institute for Risk Assessment (BfR), Germany Dr. Susanne Rudzok works as scientific officer in the Unit "Toxicology of Pesticides and their Metabolites" in the department "Safety of pesticides" at the German Federal Institute for Risk Assessment (BfR). The main task of BfR is to voice an opinion on the potential risks from food, consumer articles and chemicals, and to offer scientific advice to the Federal ministries for their policy decisions. She is involved in the toxicological assessment of pesticide active substances both on the EU level and within the framework of national authorization procedures. Susanne's background is biochemistry and toxicology. As scientific assistant at the Helmholtz Center for Environmental Research she studied the cell toxicological effects of single substances and binary mixtures. Afterwards, she worked in the field of human risk assessment in the Unit Environmental Medicine, Toxicology and Epidemiology at the North Rhine - Westphalian State Agency for Nature, Environment and Consumer Protection (Germany) for 4 years.

SCHLATTER Josef
Swiss Federal Office of Public Health
Switzerland
Dr Josef Schlatter has been toxicologist for 28 years at the Nutritional and Toxicological Risks Section of the Swiss Federal Office of Public Health, Food Safety Division, and was the head of the section for 21 years until his retirement in 2012. The main responsibility of the section was performing risk assessments in the area of diet and nutrition and all types of chemicals in food. These include natural toxicants, contaminants in food and drinking water (residues of veterinary drugs, pesticides, environmental pollutants), food additives, cosmetics, food contact

materials and toxicological evaluation of novel foods. His research focussed mainly on natural toxicants (inherent food-plant toxins, mycotoxins) and contaminants.
He was a lecturer in toxicology for more than 10 years at the Swiss Federal Institute of Technology, Zürich and was teaching/organising block courses in food toxicology.
In a personal capacity, he has been a member of the Scientific Committee on Food of the European Commission and was chairing the scientific panel on contaminants in the food chain of the European Food Safety Authority for 9 years (2003-2012), and is currently member of the EFSA Scientific Committee. He has participated in about 20 meetings of JECFA since 1998.

SCHNEIDER Klaus
Forschungs- und Beratungsinstitut Gefahrstoffe GmbH (FoBiG)
Germany
Dr Klaus Schneider is holding a diploma in chemistry from the University of Freiburg and a PhD in chemistry. He is a certified toxicologist (DABT). Klaus Schneider joined the consultancy FoBiG specialised in regulatory toxicology and risk assessment 28 years ago. He is a company partner and since 2012 managing director of the company. Klaus Schneider has a deep knowledge in methods and practical application of toxicological risk assessment. His main areas of activity are chemicals legislation, biocides and environmental contaminants. He provides extensive expertise in the REACH and CLP legislation and is leading many REACH projects for industry clients, but also projects for authorities, among them an ongoing research projects for the German Competent Authority BAuA on methods to derive occupational exposure limits. Klaus Schneider has extensive experience in national and international cooperation, e.g. also in dealing with and working in various expert committees. In past years he worked as an expert for the “Joint FAO/WHO Expert Committee on Food Additives” (JECFA) and until 2018 was a member of the “Exposure Assessment and Standardisation" of the German Federal Institute for Risk Assessment (Bundesinstitut für Risikobewertung, BfR).

WHEELER Matthew
Centers for Disease Control and Prevention
USA
Dr Matthew W. Wheeler received his Ph.D at the University of North Carolina at Chapel Hill in Biostatistics, and is a senior health statistician at the National Institute for Occupational Safety and Health. He research include the intersection of Bayesian non-parametric methods with toxicology and risk assessment. He has helped spearhead research for model averaging in dose-response assessment, and is one of the primary architects of the US EPA’s Benchmark Dose Software. He is currently working alongside various US governmental agencies to help harmonize chemical risk assessment practice. His research has received numerous awards including the Presidential Early Career Award for Scientists and Engineers from president Obama.

WOLTERINK Gerrit
Centre for Nutrition, Prevention and Health Services (VPZ)
The Netherlands

WOLTERINK Gerrit (1959) received his MSc in Biology at Utrecht University in the Netherlands in 1983, with the main subject Pharmacology and secondary subjects Toxicology and Immunology. In 1988 he acquired his PhD, based on research into the role of ACTH-neuropeptides in brain plasticity. Following his PhD he worked 2 years in the field of neuropharmacology as a research associate at Cambridge University (1989-1990) and subsequently as a post-doctoral researcher and assistant professor at Utrecht University (1991-2000). Since 2000, he works at the Dutch National Institute for Public Health and the Environment (RIVM) and has been involved in the toxicological evaluation and human health risk assessment of pesticides and biocides, contaminants, veterinary drugs and food additives. Gerrit has prepared advisory reports on human health risks of pesticide, biocides and contaminants, both on the national level for Dutch policy makers and on the international level as, for instance, Temporary Advisor/Expert for the WHO Panel of JMPR (from 2002 onward) and JECFA (from 2010-2013). Since 2015 he is a member of the EFSA PPR-Panel.

ZANG Yu (Janet)

U.S. Food and Drug Administration

USA

Dr. Zang is a regulatory toxicologist at US FDA, Center for Food Safety and Applied Nutrition (CFSAN), where she performs safety review and risk assessment for FDA-regulated food substances, including direct and indirect food additives, color additives, food ingredients generally recognized as safe (GRAS), and chemical food contaminants. Dr. Zang is a Diplomat of American Board of Toxicology. She received her B.S and M.S. degrees in Environmental Biology from Nanjing University, and Ph.D. degree in Pharmacology and Toxicology from University of Louisville School of Medicine. She completed a postdoctoral fellowship at the Toxicology Program within the Department of Environmental Health Science, Johns Hopkins Bloomberg School of Public Health. Since joining FDA in 2009, Dr. Zang has served as the toxicological and risk assessment expert/resource person on many national and international food safety working groups convened by organizations including NIH, NTP, OECD, FAO and WHO. She is on the current (2016-2020) Joint FAO/WHO Expert Committee on Food Additives (JECFA) Roster of Toxicological and Epidemiological Experts and has authored a number of JECFA monographs.