



2019 INTERNATIONAL SYMPOSIUM ON CHEMICAL RISK PREDICATION AND MANAGEMENT (ISCRPM-2019)

Guangzhou, April 25-26, 2019

Meeting Schedule

Organizers:

South China Normal University

Dalian University of Technology

Nanjing University

Jinan University



2019 INTERNATIONAL SYMPOSIUM ON CHEMICAL RISK PREDICATION AND MANAGEMENT (ISCRPM-2019)

April 25-26, 2019

Program Booklet

Guangzhou, China

ISCRPM 2019

WELCOME

On behalf of the organizing committee for the **International Symposium on Chemical Risk Predication and Management (ISCRPM 2019)**, a warm welcome to Guangzhou, China. A special welcome to our colleagues from overseas, who have travelled long distances to make this event a success.

Chemicals are widely used in agriculture and industry as well as in our daily lives. They can be released to the environment during their production, application and waste disposal processes, causing potential risks to environmental organisms and human health. To address the environmental contamination issues of these chemicals, it is essential to understand the exposure of chemicals in the environment and their ecological and human effects. We need to strengthen our research in environmental exposure assessment, environmental processes and pollution control technologies of chemicals with the aim to reduce their risks posed to the ecosystem and human health.

Our scope of this symposium includes the chemical exposure, ecological and health risk assessment, and environmental processes of chemicals, as well as some emerging issues such as endocrine disruption and pharmaceuticals.

We invite people in this research field from overseas and within China to discuss the research status and future directions of chemical exposure, environmental risks and management.

We sincerely hope that you will enjoy the stimulating scientific deliberations, social networking and the experience of our Cantonese culture. You are also welcome to visit our campus and SERI laboratories during your stay.

Guang-Guo Ying
@SERI China

ORGANIZING COMMITTEE

Guangguo Ying, South China Normal University
Jingwen Chen, Dalian University of Technology
Xiaowei Zhang, Nanjing University
Jing You, Jinan University



SECRETARY

Chang'er Chen, Qianqian Zhang, Sisi Liu, Pei Hua

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ABOUT SERI

SCNU Environmental Research Institute (SERI) was established by South China Normal University (SCNU) as one of its important strategic measures in building into a top-level comprehensive university. It is aimed to strengthen the development of environmental science and engineering disciplines in SCNU, and to meet the big demand of environmental pollution control in China due to the rapid economic development. SCNU has a good foundation in environmental subjects, with various environmental studies going on in schools of chemistry and environment, life science, geography, public administration as well as law. SERI helps integrate all sorts of research resources in the university and carry out innovative research through collaboration. It will also provide an important platform for collaboration among scientists of different disciplines in pursuing world-class research in environmental science and technology.

SERI will conduct innovative research in environmental pollution and control technology, focusing on frontier and emerging sciences in the environmental fields, which involve environmental chemistry, environmental toxicology, environmental omics, environmental informatics and modelling, environmental technology and engineering. We welcome environmental scientists from overseas and within China to join the SERI.

VISION:

- (1) To be an internationally acclaimed research institution focusing on emerging environmental science and technology;
- (2) To help build a sustainable future for China and the world through research and education.

MISSION:

- (1) To solve the environmental problems and to address the national and global issues through innovative research;
- (2) To provide a platform for collaboration among scientists of different disciplines in pursuing world-class research in environmental science and technology.

MOTTO:

"Learn and Apply"



Meeting Place

Clifford Hotel, Panyu District, Guangzhou



INTERNATIONAL SYMPOSIUM ON CHEMICAL RISK PREDICATION AND MANAGEMENT

Thursday April 25	
9:00 – 18:00	Registration
18:30 –	Dinner

Meeting Venue: C &E Centre B (祈福轩), Golden Hall (钻石厅)

Friday April 26: Morning Sessions		
8:20 – 8:30	Welcome speech by Dr. Guang-Guo Ying	
Session I	Chair: Dr. Zijian Wang	
8:30 – 9:00	Charles Menzie	A global perspective on applying risk science to chemicals management: melding the appropriate information on toxicity and exposure to humans and the environment
9:30 – 9:30	Patrick G.P.C. Zweers	EUSES: European Union System for the Evaluation of Substances
9:30 – 10:00	Kenneth Mei Yee Leung	Putting 'eco' into ecotoxicology: A revisit
10:00 – 10:30	Coffee Break and Group Photo	
Session II	Chair: Dr. Jingwen Chen	
10:30 – 11:00	Alistair Boxall	Prioritisation and Intelligent Risk Assessment of Pharmaceuticals in the Environment
11:00 – 11:30	Dan Schlenk	Toxicity of chlorinated byproducts of pharmaceuticals in aquatic organisms
11:30 – 12:00	Paul Lam	Environmental Fate and Risks of Emerging Chemicals of Concern in Coastal Region of South China
12:00 – 13:30	Lunch	

Friday April 26: Afternoon Sessions		
Session III	Chair: Dr. Xiaowei Zhang	
13:30 – 14:00	Bryan Brooks	Advancing an Understanding of Bioaccumulation for Ionisable Organic Contaminants in Aquatic Systems
14:00 – 14:30	Huixiao Hong	Coupling androgen receptor with cofactors enhance assessment of androgenic activity of chemicals
14:30 – 15:00	ZhiChao Dang	Regulating endocrine disruptors: state of science
15:00 – 15:30	Coffee Break	
Session IV	Chair: Dr. Jing You	
15:30 – 16:00	Paul J. Van den Brink	Effects of Imidacloprid on aquatic ecosystem
16:00 – 16:30	Wenxiong Wang	Caveats in establishing marine water quality criteria for metals
16:30 – 17:00	Xiaowei Zhang	Dose-Dependent Transcriptomic Approach for Screening and Prediction of Chemical Toxicity
17:00 – 17:30	Guang-Guo Ying	Emerging chemicals in water cycle
18:30 –	Dinner	

SPEAKER BIOGRAPHY



Dr. Alistair Boxall is a professor in Environmental Science at the University of York, UK. Alistair's research focuses on understanding emerging and future ecological and health risks posed by chemical contaminants in the natural environment. Alistair is a member of the Defra Advisory Hazardous Substances Advisory Committee and is Chair of the Pharmaceutical Advisory Group of the Society of Environmental Toxicology and Chemistry. He regularly advises national and international organisations on issues relating to chemical impacts on the environment and has published extensively on the topic of emerging contaminants (pharmaceuticals, nanomaterials and veterinary medicines) in the environment. Alistair is co-ordinator of the 3.5 M Euro project 'CAPACITIE' which is exploring methods for monitoring pollution in cities.



Dr. Paul J. Van den Brink is a professor at the Aquatic Ecology and Water Quality Management Group of Wageningen University and a senior scientist at the research institute Wageningen Environmental Research. For both affiliations, he is involved in supervising and executing international projects on assessing the ecological effects of contaminants like pesticides, veterinary medicines and personal and home care products as well as those of multiple stressors, including drought, nutrients and salinization. Other research topics are the development of effect models (e.g. individual based, meta-population models and ecoinformatics, expert base models), Traits based Ecological Risk Assessment (TERA) and ecological risk assessment of chemicals in the tropics. Since 1995, Paul van den Brink has published over 200 ISI-listed papers (h-index = 45), for three of which he won an international prize. He also co-edited five books. Paul currently coordinates the EU funded Integrative Training Network ECORISK2050 which studies the effects of global change on the emission, fate, effects and risks of chemicals in aquatic ecosystems. In 2006 Paul won the LRI-SETAC Innovative Science Award. He is presently a WIMEK board member which is part of the SENSE research school (www.sense.nl), an associate fellow of the Canadian River Institute, an honorary visiting professor at the University of York and a visiting professor at the South China Normal University. He is also a past-president of SETAC (Society of Environmental Toxicology and Chemistry) World and Europe and a SETAC Fellow.



Dr. Bryan W. Brooks is a professor of the Baylor University and the editor-in-chief of Environmental Management. His transdisciplinary research interests broadly include understanding and managing anthropogenic activities and stressors across levels of biological organization, particularly in rapidly urbanizing regions. Dr. Brooks and his students focus current research on water quality and water reuse, comparative toxicology and pharmacology, applied ecology, sustainable molecular design, developing approaches to define risks of contaminants of historical and emerging concern, natural resource extraction and the ecology and toxicology of harmful algae blooms. This research contributes to developing science-based approaches to identify, diagnose and manage complex environment and health issues. Dr. Brooks routinely works internationally on water quality, environmental contaminants and sustainability issues, particularly related to rapidly urbanizing regions on five continents. The author of over 175 manuscripts in scholarly journals and book chapters, Dr. Brooks published (with DB Huggett) *Human Pharmaceuticals in the Environment: Current and Future Perspectives* (Springer: ISBN 978-1-4614-3419-1). He has given over 150 invited presentations and plenary or keynote lectures in the United States, Argentina, Australia, Brazil, Canada, China, Czech Republic, Denmark, France, Germany, Hong Kong, Korea, Mexico, New Zealand, Poland, Portugal, South Africa, Spain, Sweden, Switzerland, Taiwan, Turkey, the United Kingdom, Vietnam and Zambia. His research efforts are supported by the National Institutes of Health, National Science Foundation, Centers for Disease Control and Prevention, U.S. Department of Agriculture, U.S. Environmental Protection Agency, local government and business.



Dr. ZhiChao Dang is senior scientific officer in the Centre for Safety of Substances and Products at the Dutch National Institute for Public Health and the Environment, RIVM and EU Registered Toxicologist. Since 2007, he has been guest professor at the Ocean University of China and the Chinese Research Academy of Environmental Sciences. Dr. Dang has been involved in many different projects, such as risk assessment of industrial chemicals in the REACH framework and derivation of environmental standards. He has also been working on the OECD HPV chemicals programme and the development of OECD test guidelines. As an expert on endocrine disruptors, he is member of various national and international expert groups. Dr. Dang is leading projects under the framework agreement with the European Chemicals Agency (ECHA). In addition, he is playing a key role as a scientific and cultural liaison between RIVM and Chinese counterparts. Zhichao Dang coordinated the G2G cooperation between China and the Netherlands (2011-2013).



Dr. Huixiao Hong is now a Supervisory Research Chemist and the Chief of the Bioinformatics Branch in the Division of Bioinformatics and Biostatistics. He has a spectrum of research interests, including chemoinformatics, computational chemistry, next-generation sequencing data analysis, genome-wide association studies, proteomics, and systems biology. His current research goals are to assess repeatability of whole-genome sequencing technology, as well as to evaluate reproducibility of germline variants called from whole-genome sequencing data. Additionally, he is looking to construct an androgenic-activity database to enhance the endocrine disruptor knowledge base. Dr. Hong is also working to develop predictive models for assistance of safety evaluation of FDA-regulated products. He has more than 180 publications and has received many awards during his career.



Prof. Paul Kwan Sing Lam is Chair Professor of Biology at the City University of Hong Kong, Director of State Key Laboratory of Marine Pollution (City University of Hong Kong) and Direct of Research Centre for Oceans and Human Health. Prof. Lam's research interests/area include Ecology, Environmental Measurement and analysis, Ecotoxicology and Environmental toxicology and risk assessment. Prof. Lam has published 400 ISI-listed papers (h-index = 70). Currently funded research projects are related to the environmental assessment of chiral pharmaceuticals; the source identification of halogenated flame retardants and investigations of benthic and epiphytic toxic algae. He received the Second Class Award in the Natural Science granted by the Ministry of Education China.



Prof. Kenneth Mei Yee Leung is Professor of Aquatic Ecology and Toxicology at the University of Hong Kong. Prof. Leung's research interests include aquatic toxicology, ecological risk assessment, ecological physiology and environmental toxicology. He was selected as one of the top 100 Asian Scientists by the Asian Scientist Magazine, Top 1% cited scientist in Ecology/Environmental Science by Clarivate Analytics' Essential Science Indicators, and Top 1% Scholar at HKU in 2018. He received the SETAC Fellows Award by the Society of Environmental Toxicology and Chemistry in 2017.



Dr. Charles A. Menzie specializes in the application of risk assessment and causal analysis methods for evaluating the potential for effects and for diagnosing the causes of environmental harms and damages. His technical expertise includes the evaluation of the environmental fate and effects of physical, biological, and chemical stressors on terrestrial and aquatic systems. He has applied his expertise to situations involving nutrient enrichment, chemical contamination, use of pesticides and other chemical products, oil and gas operations, fossil fuel and nuclear power plants, alternative energy projects, mining, invasive species, water management, and vulnerability assessments for climate change. He has a working knowledge on how to approach these issues within the appropriate national and international policy and regulatory frameworks. Dr. Menzie also maintains a consulting practice and serves as Director of Exponent's Ecological and Biological Sciences practice. Dr. Menzie is recognized as one of the leaders in the field of risk assessment and was awarded the Risk Practitioner Award by the Society for Risk Analysis and the Lifetime Achievement Award from the Association for the Environmental Health of Soils.



Dr. Daniel Schlenk is a professor of Aquatic Ecotoxicology at the University of California Riverside. His research focuses on understanding the biochemical factors that influence susceptibility to environmental and natural chemicals. Four specific projects involve the impact of climate change on environmental factors that influence detoxification strategies in aquatic organisms; mechanistic investigations of the effects of salinity on pesticide toxicity in fish; the role of biotransformation as a mechanism of tolerance to natural and man-made toxic agents; impacts of endocrine disrupting chemicals on aquatic organisms; and mechanisms of PAH developmental toxicity in fish. In 2008, Dr. Schlenk served on the USEPA Science Advisory Board to evaluate potential changes to the Aquatic Life Criteria for Compounds of Emerging Concern. From 2003-2006, he was a member of the Board of Directors for the North American Society of Environmental Toxicology and Chemistry. He is the co-Editor-in Chief of Aquatic Toxicology and serves on the editorial boards of Toxicological Sciences, The Asian Journal of Ecotoxicology and Marine Environmental Research. He has been a permanent member of the USEPA FIFRA Science Advisory Panel since 2007, and has participated in proposal review panels for the USEPA, NOAA, and the National Institute of Environmental Health Sciences. Now he is also an associate editor of Environmental Science & Technology.



Dr. Wen-Xiong Wang is Chair Professor at the Hong Kong University of Science and Technology (HKUST). His major research interest lies in the biogeochemistry, bioavailability, and toxicity of metals in aquatic organisms. Prof. Wang is the first or corresponding author on more than 430 peer-reviewed publications on subjects related to metal ecotoxicology and biogeochemistry. He also serves as Editor of Environmental Toxicology and Chemistry (ET&C), Associate Editor of Environmental Pollution, and a member of the editorial boards of many other international journals. He received the prestigious Overseas Distinguished Young Scientist Award from the Chinese National Science Foundation in 2002, the Biwako Prize for Ecology in Japan for his work on metals in aquatic systems in 2003, and the First Prize in Natural Science from the Ministry of Education in China for his work on the trophic transfer of metals in 2009. Prof. Wang is a fellow of the Institute of Marine Engineering, Science, and Technology (FIMarEST) and of the Society for Environmental Toxicology and Chemistry (SETAC).



Dr. Guangguo Ying, Professor and Director of the Environmental Research Institute of South China Normal University (SERI). He was recruited by the Chinese Academy of Sciences through “100 Talents” program, and received “Distinguished Scholar” Award from the National Natural Science Foundation of China. He is the editorial board member of "Environmental Science: Processes & Impact", "Environmental Toxicology and Chemistry" and “Asian Journal of Ecotoxicology”. His research interests focus on environmental contamination assessment and remediation technology, including the fate and effects of contaminants in the environment. He is currently conducting research in emerging science areas such as antibiotics and AMR, endocrine disrupting chemicals and pharmaceuticals and personal care products in the environment, and environmental issues associated with wastewater and biosolid reuse as well as water quality improvement technology. The findings of his research have been published in respected international peer reviewed journal “Environmental Science & Technology”, which has become a hot topic in the research field of environmental science and attracted increasing attention of Chinese Government and International Media. He is the principal investigator (PI) of a number of research grants, such as National Natural Science Foundation of China Project (NSFC), National Water Pollution Control and Treatment Science and Technology Major Project, Environmental Protection Commonwealth Project, Key Research and Development Program Project of Guangdong Province, etc. He has published one book in Chinese,

five books in English, and more than 200 SCI papers in various international journals with a citation of > 8000 and h-index 50. He is one of the Most Cited Scientists in Environment and Ecology.



Dr. Xiaowei Zhang is a professor of Environmental Toxicology at Nanjing University. He received his PhD degrees at Michigan State University in 2008. Dr. Zhang's research interests include ecotoxicology of environment pollutants and chemical safety research. His current research focuses on environmental genomics of pollution, which include toxicogenomics of chemicals (EDCs, flame retardants, etc.) and ecogenomics. His research involves both laboratory experiments using omic facilities (e.g. live cell array, next-gen genome sequencing, etc.) and field studies (e.g. toxicity identification and evaluation, avian sentinels studies). Dr. Zhang has published over 130 SCI journal publication with an h-index of 32. He has won many national and international awards, including SETAC/Elsevier Best Paper Award (North America) and Young Changjiang Scholar from Ministry of Education China. He also holds the positions of the Associate Director of National Engineering Research Center for Organic Pollution Control and Resource Reuse and the Director of the Research Institute on Environmental Safety of Chemicals, Nanjing University. He served as the Editor for Environmental Toxicology & Chemistry (2014-2016) and Environmental Science Europe (2014-2016) and associate editor for Chemosphere (2011-2012).



Patrick G.P.C. Zweers (MSc), EU Registered Toxicologist, is a senior risk assessor with respect to environmental toxicology/ ecotoxicity/ PBT-properties/ emission estimation, environmental exposure and environmental risk characterization for over 15 years. He is REACH project manager from the day that REACH went into force at the RIVM, the Netherlands. He is involved in all REACH processes: screening and prioritization of substances, Risk Management Option-analysis, Substance of Very High Concern-identification, substance and dossier evaluation (both compliance check and evaluation of testing proposals), Harmonized Classification and Labelling, authorization and restriction of chemicals. He is chairman of PBT/vPvB-expertise group within the RIVM, is coordinator and organizer of RIVM-IRAS annual course on Chemical Safety Assessment under REACH & PBT-workshop. He is a highly respected lecturer for REACH, EUSES, CHESAR and risk assessment related courses.



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