



**Anaerobic Digestion
China Chapter**



Side Event V: Microbial Conversion of Organohalides and Micropollutants

✚ Objective

Organohalides (e.g. chloroethenes, chlorobenzenes and PCBs) and micropollutants (e.g. PPCPs and EDCs) are persistent in the environment, and become a growing environmental issue. Microbial conversion by organohalide-respiring bacteria or other functional microorganisms represents a promising solution for removal of those two categories of pollutants. Recently, major advances have been made in characterizing the key populations and functional genes involved in microbial conversion of organohalides and micropollutants. Those progresses provide mechanistic insights into which and how the microorganisms remove those pollutants, and bring us to a new stage to solve the puzzles in the application of microorganisms for the removal of those persistent compounds from wastestreams and contaminated sites. This side event aims at providing a platform for researchers to communicate their new findings, as well as key scientific questions in future studies.

✚ Invited professors

Prof. Dr. **Rijnaarts Huub** (Wageningen University, Netherlands)

Prof. Dr. **Lorenz Adrian** (Helmholtz Centre for Environmental Research, Germany)

Prof. Dr. **Jianzhong He** (National University of Singapore, Singapore)

Prof. Dr. **Dirk Springael** (Katholieke Universiteit Leuven, Belgium)

Prof. Dr. **Hongzhi Tang** (Shanghai Jiao Tong University, China)

✚ Venue: China National Convention Center (CNCC), Beijing, China

✚ Dates: 19th October 2017

Who should attend the side event?

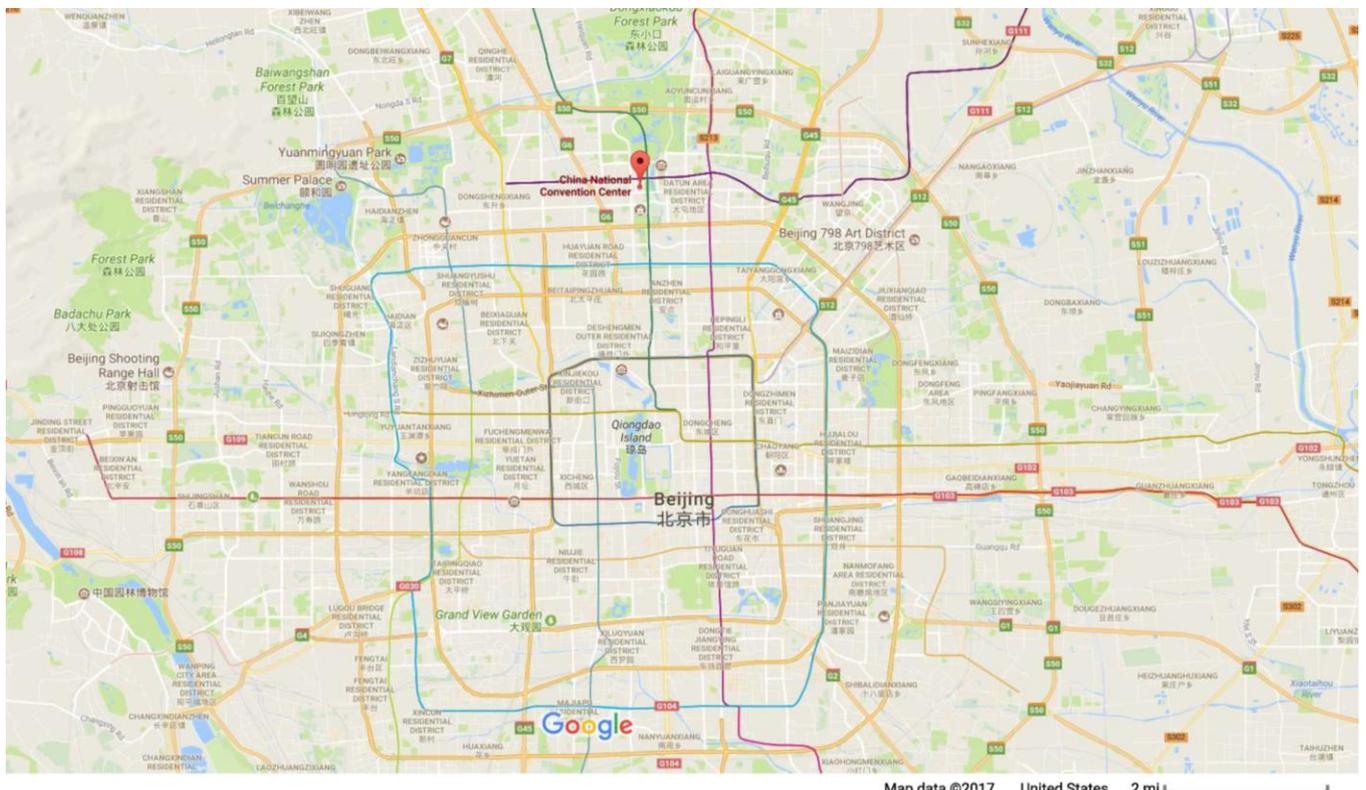
This side event is oriented towards researchers who work on microbial conversion of organohalides and micropollutants.

Workshop Chairs and Contact Information

Dr. Jianzhong He, jianzhong.he@nus.edu.sg

Dr. Shanquan (Alan) Wang, wangshanquan@mail.sysu.edu.cn

Google map of the meeting Venue



Website of the meeting Venue

<http://www.cncchina.com/en/Default.aspx>

Transportation

Please check the conference website for detailed transportation information:
<http://ad15.medmeeting.org/Content/37984>

Introduction of the invited professors

Prof. Dr. Rijnaarts Huub



Rijnaarts Huub is a professor in Environment and Water Technology at the sub-department of Environmental Technology, Wageningen University & Research (WUR). He is also the director of the Wageningen institute for Environmental and Climate research (WIMEK), member of the board of Deltares and member of the board of the Amsterdam Institute for Advanced Metropolitan Solutions (AMS).

He received his PhD (1994) through research on microbial adhesion on solid surfaces and biodegradation of halogenated compounds in groundwater and soils, which he conducted at WUR. His main fields of research include water treatment for reusable water, micro-pollutant removal, urban water system engineering, sustainable desalination and urban infrastructure redesign for implementing resource-oriented biotechnologies. Rijnaarts Huub heads multiple research projects focusing on water technology, resource recovery and creating resilient cities.

Prof. Dr. Lorenz Adrian



Lorenz Adrian is a Senior Scientist in the Department Isotope Biogeochemistry at the Helmholtz Centre for Environmental Research – UFZ (Leipzig, Germany) heading the working group Geobiogeochemistry and is Professor for Geobiotechnology at TU Berlin. He received his PhD from TU Berlin in 1999 and his habilitation in 2006. His research mainly focuses on functional genomics and biochemistry of organohalide-respiring bacteria, particularly in microbiology, biochemistry, genomics and bioremediation application aspects of *Dehalococcoides*.

Lorenz Adrian heads a leading research team in microbial reductive dehalogenation, especially he studies the physiology, biochemistry and genomics of a model strain of *Dehalococcoides mccartyi* (i.e. strain CBDB1), which have been published in *Nature*, *Science*, *Nature Biotechnology* and many other top-tier journals.

Prof. Dr. Jianzhong He



Jianzhong He is an Associate Professor in the Department of Civil and Environmental Engineering at the National University of Singapore. She received her Ph.D. degree at the Georgia Institute of Technology in 2003 from Professor Frank Löffler's lab. Prior to that, she obtained her M.S. and B.S. degrees from Tsinghua University and Harbin Institute of Technology in 1998 and 1995, respectively. She was a postdoctoral researcher in Professor Lisa Alvarez-Cohen's lab at the University of California Berkeley for two years before joining the National University of Singapore as an assistant professor in 2005. Dr. He's research focuses on discovering novel

microorganisms to transform and detoxify environmental contaminants, enhancing biodegradation by optimizing the growth of functional microbes, biomass to bioenergy/biochemicals, and applying nucleic acid-based approach in laboratory cultures and in situ.

During her tenure at NUS, Jianzhong has generated 67 peer-reviewed publications while securing significant amount of external funding from diverse funding agencies (>15million in the past 10 years). So far, her publications have been cited for more than 2100 times (Web of Science) and an H-Index of 20. She holds several patents and collaborates widely with industrial, governmental and scientific partners. She is also the editorial board member of the *Journal of Scientific Reports*, *the ISME Journal*, and *Applied and Environmental Microbiology*.

Prof. Dr. Dirk Springael



Dirk Springael is a full professor of Department of Earth and Environmental Science (Division of Soil and Water Management), KU Leuven. Research topics in his group mainly include: (1) Biodegradation of organic xenobiotics (pesticides, polycyclic aromatic hydrocarbons, VOCLs) in topsoils and the subsurface (including aquifers); (2) Interaction between bacteria-pollutant-soil particle; (3) Bioavailability of organic pollutants in soil; (4) Ecology (behavior and activity) of organic pollutant degrading bacteria in soil; (5) Dynamics and adaptation of microbial communities in soil as a response to pollution and soil management activities including agricultural activities; (6) Biofilm studies of soil bacterial communities. He has over than 150 papers published in these research areas.

Prof. Dr. Hongzhi Tang



Hongzhi Tang is a professor in the State Key Laboratory of Microbial Metabolism and School of Life Sciences and Biotechnology at Shanghai Jiao Tong University, China. He completed his Ph.D in the Department of Microbiology at State Key Laboratory of Microbial Technology, Shandong University. He received several research grants and awards recently ‘The National Science Fund for Excellent Young Scholars award in 2014. He published many articles related to his field and is an editorial board member and reviewer of peer reviewed journals. His primary research interest is in applied and environmental microbiology, microbial food technology and biodegradation and bioconversion.