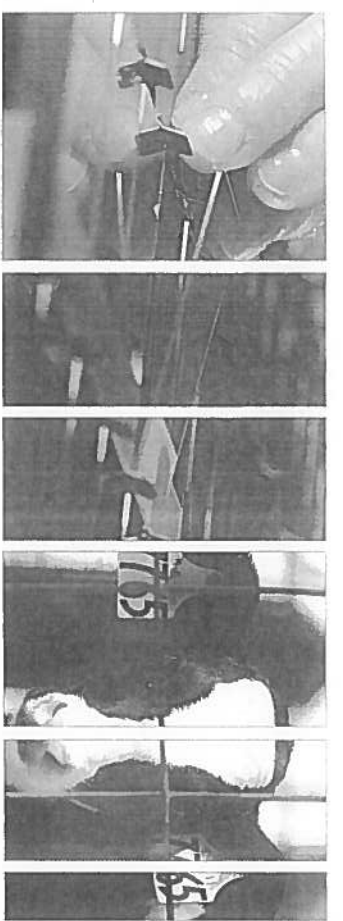




5<sup>th</sup> INTERNATIONAL SYMPOSIUM ON THE ENVIRONMENTAL DIMENSION OF ANTIBIOTIC RESISTANCE

# EDAR 2019

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4<sup>th</sup> INTERNATIONAL SYMPOSIUM ON THE ENVIRONMENTAL DIMENSION OF ANTIBIOTIC RESISTANCE

# EDAR 2017

## 13-17 AUGUST 2017 LANSING, MICHIGAN | UNITED STATES

130

MICHIGAN STATE UNIVERSITY



Michigan's Capitol Building

### PROGRAM

## INVITED SPEAKERS

Barth F. Smets (Lyngby/DK)  
DTU ENVIRONMENT  
Department of Environmental Engineering  
Professor of Environmental Microbiology  
Microbial Resource Management and Engineering



Title of plenary talk

*Plasmid host range (Permissiveness) in microbial communities across urban water systems*

Barth F. Smets is Professor of Environmental Microbiology at the Technical University of Denmark. He is educated in Belgium (MSc Applied Biological Sciences, 1987, Ghent Univ.) and the USA (PhD Environmental Science & Engineering, 1992, Univ. Illinois), had previous appointments at the University of Connecticut (1995-2004) and Clemson University (1993-1994). His research interest is at the interface of microbial ecology and environmental and water quality engineering: elucidating, describing and ultimately controlling and managing microbial communities, interactions, and processes. Of special attention are biofilm science and engineering: elucidating cellular-level and ecological processes that occur in natural and engineered biofilms, and horizontal gene flow in microbial communities and the role of plasmids as vehicle for HGT. Currently, he coordinates interdisciplinary national and European research efforts that seeks to understand the ecology of antimicrobial resistance genes in the urban water cycle.

Ed Topp (London/CA)

Principal Research Scientist  
London Research and Development Centre, Agriculture and Agri-Food Canada,  
London ON, Canada



Title of plenary talk

*The environmental dimension of antibiotic resistance – Where have we been, where should we go?*

Ed is a native of Montréal. He studied microbiology at McGill University, and he received his PhD in 1988 from the Department of Microbiology at the University of Minnesota. Ed is a Principal Research Scientist with Agriculture and Agri-Food Canada and also has adjunct appointments with the Department of Biology at Western University in London Ontario, and the Department of Soil and Water Sciences at the University of Florida. Ed has led several national studies that seek to better understand and to better manage the risks that food production practices pose for environmental quality and human health.

This work has included terrestrial and aquatic exposure and fate assessments for numerous pharmaceuticals including various antibiotics, impacts of antibiotics on soil microorganisms, and fate of antibiotic resistance genes in soils receiving animal manures or sewage sludge. Ed is the national coordinator for the Genomics Research and Development Initiative project on antimicrobial resistance, a key component of the innovation pillar of the Canadian National AMR Action Plan. Ed is a former president (2011) of the Canadian Society of Microbiologists, and chaired the first EDAR workshop in 2012.

## INVITED SPEAKERS

Marko Virta (Helsinki/FI)  
Principal Investigator  
Department of Environmental Sciences  
University of Helsinki, Finland



Title of plenary talk

*Analyzing the host range of antibiotic resistance genes in the environmental samples without culturing by epicPCR*

Marko Virta is currently professor of ecotoxicology at University of Helsinki. His research interests include antibiotic resistance in various human impacted environments such as waste waters, agriculture and aquaculture. He has published over 90 articles and supervised 14 PhDs. His recent achievements include co-development of epicPCR, protocol for linking taxa and function without cultivation and Inverse-PCR, protocol for analyzing the genetic environment of antibiotic resistance genes without cultivation.

David G. White (Knoxville, TN/US)  
Associate Dean for Research  
Professor of Food Science  
University of Tennessee, Institute of Agriculture



Title of plenary talk

*Interconnected mobilities among animals, humans and the environment*

David White joined The University of Tennessee, Institute of Agriculture as an Associate Dean for Research and Associate Director of the Tennessee Agricultural Experiment Station in September, 2016. He previously served in several positions in the U.S. Food and Drug Administration including Chief Science Officer/Research Director, Director of the Office of Research at FDA's Center for Veterinary Medicine, and Director of FDA's National Antimicrobial Resistance Monitoring System (NARMS).

He previously served as a member of the Ad hoc group on Antimicrobial Resistance, Office International des Epizooties (OIE), co-chair of both the FDA Antimicrobial Resistance Steering Committee and the U.S. Interagency Task Force on Antimicrobial Resistance and as the U.S Delegate to the Codex Ad Hoc Intergovernmental Task Force on Antimicrobial Resistance. Dr. White is an editor of the book "Frontiers in Antibiotic Resistance", ASM Press, Washington D.C. and is on the editorial board of Foodborne Pathogens and Disease.