

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance



OFFICIAL SESSION

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2

Agenda

16:00 Welcome and Introduction

Jan-Ingvar Jönsson, Patriq Fagerstedt (Swedish Research Council), and John Tumpane (Formas).

16:10 Keynote Session

Karin Wiberg (Swedish University of Agricultural Sciences) and Carl-Fredrik Flach (Gothenburg University).

16:50 Panel Discussion

Pavel Misiga (European Commission), Alexander Keucken (Vatten & Miljö i Väst AB), Kia Salin (Swedish Medical Products Agency), and Keynote Speakers.

17:20 Concluding Remarks from Panel Speakers

ABOUT

World Water Week is a conference organised by SIWI. The conference focuses on new thinking and positive action toward water-related challenges and their impact on the world's environment, health, climate, economic and poverty reduction.

QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Chair of the Panel Session



John Tumpane
Formas

Keynote & Panel Speakers



Karin Wiberg
Swedish University of Agricultural Sciences

Panel Speakers



Pavel Misiga
European Commission



Carl-Fredrik Flach
Gothenburg University



Alexander Keucken
Vatten & Miljö i Väst AB

Agenda

- 16:00** Welcome and Introduction
Jan-Ingvar Jönsson, Patriq Fagerstedt (Swedish Research Council), and John Tumpane
- 16:10** Keynote Session
- 16:50** Panel Discussion
- 17:20** Concluding Remarks from Panel Speakers



Kia Salin
Medical Products Agency

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Keynote Presentations



Karin Wiberg

Swedish University of Agricultural Sciences

Tracing contaminants of emerging concern in water using the latest advances in chemical and toxicological analysis.

Summary: There is an underexplored, emerging threat to water bodies - the discharge of large amounts of synthetic chemicals, some of which are well-known and already identified, while a vast majority are hitherto of unknown identity and uninvestigated. Trace levels of micropollutants jeopardize lakes and other water bodies as sustainable natural resources, e.g. for agricultural and as drinking water purposes. This calls for efficient screening methodology that can warn for hazards at an early stage. This presentation focuses on how the latest advances in mass spectrometry and toxicological testing can be used to trace contaminants of emerging concern in water.



Carl-Fredrik Flach

Gothenburg University

The role of aquatic environments in evolution, transmission and surveillance of antibiotic resistant bacteria.

Summary: Large quantities of resistant bacteria are excreted by humans and animals and reach aquatic environments, which can serve as transmission routes to new hosts. The release of antibiotics to the environment can also drive the evolution of antibiotic resistance and thus the emergence of new resistant bacteria. In addition, analyses of samples from environments heavily impacted by bacteria of human origin can serve as an efficient tool for the surveillance of the antibiotic resistance situation in human populations. Recent research achievements and critical knowledge gaps within these areas will be presented.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Introduction & Welcome Speaker Profiles



Jan-Ingvar Jönsson

Swedish Research Council

As Secretary General of the Swedish Research Council **Jan-Ingvar Jönsson's** main responsibilities are the development of high quality research programmes and funding schemes in medicine, life science and clinical research, as well as in public health and health care research. Jan-Ingvar holds several national commissions, and is a national representative in several international organizations. In Sweden, he was appointed to lead the newly established National research programme in antibiotic resistance. Internationally, he is the vice-chair of the Joint Programming Initiative on Antimicrobial Resistance, the chair of the joint committee of the Nordic medical research councils, and the chair of the International Consortium of Personalised medicine. He is also a Professor at Linköping University, where he leads a research group within the area of experimental haematology.



Patriq Fagerstedt

Swedish Research Council

Dr Patriq Fagerstedt is a Senior Research Officer at the Secretariat of the Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) where he coordinates national and international research, and policy work on Antimicrobial Resistance. Patriq is also the Program Manager for the Swedish National Research Program on Antibiotic Resistance. Patriq is a microbiologist who received his PhD in Neuroscience from Karolinska Institutet (KI), in 2000. He has experience from both academic and pharmaceutical industry research. Before joining the JPIAMR and the Swedish Research Council in 2014 he worked as Senior Grants Specialist and Coordinator of US Grants and Contracts at the Grants Office of KI.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Panel Session Chair Profile



John Tumpane
Formas

“**Research and innovation** are key to achieving the **UN Sustainable Development Goals**. This initiative is an important milestone to **provide access to water and sanitation**, and promote vibrant **human and animal health**, as well as **aquatic ecosystems**. This holistic approach will address **knowledge gaps on waterborne contaminants and pathogens**.”

Dr John Tumpane is Head of Department for Environment at Formas - a Swedish Research Council for sustainable development. John has been part of the management team at Formas since 2018 and has held various positions at the agency since 2015. He has extensive experience of research funding as well as research and innovation policy, and previously worked at the Swedish Research Council and the Swedish National Union of students. John holds a PhD in Chemistry from Chalmers University of Technology in Gothenburg and obtained his undergraduate degree at Trinity College, Dublin.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Keynote & Panel Profile



Karin Wiberg
Swedish University of Agricultural Sciences

“Novel methodology is *urgently* needed to screen for hazardous micropollutants in natural waters.”

Karin Wiberg is full professor in Organic Environmental Chemistry at the Department of Aquatic Sciences and Assessment, Swedish University of Agricultural Sciences (SLU) in Uppsala, Sweden. She got her doctoral degree in Environmental Chemistry at Umeå University in 2002, became Associated Professor in 2009 and faculty professor at SLU in 2011. Currently, she is the leader of a research team geared towards tracing and managing chemical hazards in the environment with focus on organic contaminants of emerging concern (CECs) in the aquatic environment. Karin has >30 years of experience of research and has led several large multi- and transdisciplinary projects financed by Formas and the Swedish EPA, e.g., the drinking water project SafeDrink and the dioxin project BalticPOPs. She is research leader in DRICKS (a national competence center for drinking water), member of the national advisory board The Toxicological Council and expert member in the Seed Group of Water JPI Knowledge Hub on Contaminants of Emerging Concern. More information is found at www.slu.se/karin-wiberg-eng.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Keynote & Panel Profile



Carl-Fredrik Flach
Gothenburg University

“Aquatic environments can be important for evolution, transmission as well as surveillance of antibiotic resistant bacteria.”

Associate Professor **Carl-Fredrik Flach**, University of Gothenburg, has a background as molecular biologist and holds a PhD in Medical Microbiology. Flach’s research centers around the role of wastewater and wastewater-impacted environments in emergence, selection, transmission and surveillance of antibiotic resistance. He is/has been the principal investigator of several grants related to these issues. He currently leads projects focusing on using wastewater analyses for the purpose of survey antibiotic resistant bacteria in human populations and the transmission of resistance plasmids in wastewater environments. He is also a member of the steering committee and the leader of the surveillance theme within the Centre for Antibiotic Resistance Research (CARE) at the University of Gothenburg (www.care.gu.se) as well as a director of studies for the Swedish Doctoral Programme in Infections and Antibiotics (NDPIA, www.ndpia.se). Flach has been active in communicating research results to stakeholders in the water and health sectors during the last years and frequently interacts with actors from the wastewater sector, both nationally and internationally.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Panel Profile



Pavel Misiga
European Commission

Pavel Misiga is a graduate of London School of Economics and Princeton University. He worked as an environmental consultant and later as a senior official at the Ministry of Environment in his home country Slovakia. He represented his country in the EU accession negotiations in the field of environment. He joined the European Commission in 2003. During last 13 years he led teams working on Sustainable Production and Consumption, Resource Efficiency, Circular Economy, Water and Eco-innovation policies in different services of the European Commission. He is currently the head of the Circular Economy and Bio-based Systems unit in the Directorate General for Research and Innovation.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Panel Profile



Alexander Keucken

Public Joint-Stock Utility Vatten & Miljö i Väst AB (VIVAB)

“Emerging pollutants and antimicrobial resistance are a serious cross-border health threat that cannot be sufficiently addressed by one country alone and cannot be confined to a geographical region and hence needs intensive cooperation and coordination from a global perspective.”

Dr Alexander Keucken is currently employed as a Research Manager with Focus on Applied Innovative Water Treatment Technology at VIVAB. Alexander has acquired an extensive range of environmental and technical knowledge over his 20 years of work experience in the Swedish public water sector, as well as through his engagement within the water industry both nationally and internationally. He represents the Swedish Water & Wastewater Association in the committee on drinking water within the European Federation of National Association of Water Services (EurEau), and is the chair of the Joint Working Group on Innovation within EurEAU. His current work assignments, research and innovation activities are tightly linked to Water Resources Engineering in the Department of Building and Environmental Technology and to Applied Microbiology at Department of Chemistry, Lund University.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Panel Profile



Kia Salin

Swedish Medical Products Agency

“Limiting the discharges and emissions of active substances from manufacturing of pharmaceuticals into the environment will promote the Sustainable Development Goals to ensure healthy lives and promote well-being for all at all ages, ensure clean water and sanitation, and support access to safe and effective medicines in the future.”

Kia Salin has been working at the Swedish Medical Products Agency as Scientific Director of Sustainability since 2012. The Swedish Milestone Target – increased environmental consideration in EU pharmaceutical legislation and internationally, has been the main focus of her work for the last years. The new legislation for veterinary medicinal products and medicated feeds (2019:6), which has improved the standard regarding antibiotics for veterinary use as well as the ongoing revision of the Guideline on the environmental risk assessment of medicinal products for human use, is showing that the insight is growing in member states regarding the importance to reduce the emission of active substances from medicines into the environment and to combat antimicrobial resistance.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Event Organisers



Patriq Fagerstedt
Senior Research Officer
JPIAMR Secretariat &
Swedish Research Council



Kristina Laurell
Senior Research Officer
Formas



Petra Wallberg
Senior Research Officer
Formas

The Swedish Research Council (VR) is Sweden's largest governmental research funding body, and supports research of the highest quality within all scientific fields. In order to provide Swedish research with the best possible prerequisites, VR also funds research infrastructure, both in Sweden and abroad. VR has a mandate to advise the Government on research policy issues. VR hosts the Secretariat: Joint Programming Initiative on Antimicrobial Resistance (JPIAMR) and is responsible for the **Swedish National Research Programme on Antibiotic Resistance** where Formas is

an active member. **Formas** is a government research council for sustainable development. Formas funds research and innovation, develops strategies, performs analyses and conducts evaluations. Areas of activity include the environment, agricultural sciences and spatial planning. Formas conducts specific environmental analyses that aim to make it easier for Sweden to achieve their environmental goals. Formas is also a national representative for both JPI Oceans and Water JPI.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



QUESTIONS 4 SPEAKERS

#WWWAMR
Petra.Wallberg@formas.se
+46 (0) 72-205 62 97

Joint Programming Initiatives

EU Joint Programming means the joint planning of development cooperation by the EU development partners working in a partner country (<https://ec.europa.eu>).

Launched in December 2011, the Joint Programming Initiatives “Water challenges for a changing world”, so called **Water JPI** (www.waterjpi.eu), tackles the ambitious challenge of achieving sustainable water systems for a sustainable economy in Europe and abroad. The availability of water in sufficient quantities and adequate quality is indeed a public issue of high priority, addressing a complex and global challenge. As inter-governmental collaborative platform engaging 23 countries members, and 8 other partnering countries, the Water JPI is implementing research and innovation actions around scientific gaps defined in its Strategic Research and Innovation Agenda (**SRIA**). To date, the Water JPI has supported five transnational calls (70 projects for 63 million euro), a knowledge hub on Contaminants of Emerging Concern and some other activities (cluster of nationally funded projects, information platform on research infrastructures or mobility schemes).

In the same year, the EU established the Joint Programming Initiative on Antimicrobial Resistance (**JPIAMR**; www.jpiamr.eu), together with 11 European member countries. Today, JPIAMR is a global collaborative platform and has engaged 27 nations to curb antibiotic resistance (AMR) with a **One Health approach**. The initiative coordinates national funding to support transnational research and activities within the six priority areas of the shared JPIAMR Strategic Research and Innovation Agenda – therapeutics, diagnostics, surveillance, transmission, environment and interventions. To date JPIAMR has supported research and network projects, with funding of approximately 67 million euro.

Also in 2011, the Joint Programming Initiative Healthy and Productive Seas and Oceans (**JPI Oceans**; www.jpi-oceans.eu) was established as an intergovernmental platform, open to all EU Member States and Associated Countries who invest in marine and maritime research. The platform provides its member countries with a shared voice and action plan to address complex ocean-related societal challenges that cannot be solved at the national level. The strategy of JPI Oceans is defined by its **SRIA** which was published in May 2015. The SRIA presents ten Strategic Areas, developed and agreed by JPI Oceans as strategic priorities for marine and maritime research in Europe.

Swedish Research Council / Formas / Swedish National Research Programme on Antibiotic Resistance



OFFICIAL SESSION

Challenges of Contaminants of Emerging Concerns, including Antibiotic Resistant Bacteria

Wednesday 28 August | 16.00-17.30 | Room: M2



ABOUT

World Water Week is a conference organised by SIWI. The conference focuses on new thinking and positive action toward water-related challenges and their impact on the world's environment, health, climate, economic and poverty reduction.

QUESTIONS 4 SPEAKERS

#WWWAMR

Petra.Wallberg@formas.se

+46 (0) 72-205 62 97