SEMINAR DAY 2

Free Communications (3x15 min)
Study Cases (2 x 15 min)
Invited Speaker
Keynote Speaker
Chair: Aida Duarte (PT) and Ferry Hagen (NL)

LUNCH BREAK AND POSTER SESSION

MICROAREIAS NETWORK MEETING
Discussion Panel

BREAK

"MRSA reservoirs outside the hospital: a public health concern" – Teresa Conceição (PT)
"Anthrax: a rare disease in Portugal?" - Rita Cordeiro (PT)
"Potential of touch screens as reservoir of multiresistant bacteria" - Aida Duarte (PT)
"Cryptococcus gattii: the emergence of a tropical pathogen in temperate climates" - Ferry Hagen (NL)
"Bioaerosol in occupational settings: a possible application of QMRA" – Annalaura Carducci (IT)
"Occupational exposure to biological agents in wastewater treatment plants" – Fátima Aguiar (PT)
"Fungal studies in Archives: a double concern" – Catarina Pinheiro (PT)
"Fungi in hospital environment and antifungal resistance" - Raquel Sabino (PT)
"Concerns on antibiotic resistance: cross-talk between different environments" - Manuela Caniça (PT)

CONGRESS DINNER

Fungi, Bacteria, Viruses, Insects and Parasites"
Round Table: "Microbiomes, Beach Sand Renourishment, Sandboxes and Parks, Construction –
Study Case
Invited Speaker
Keynote Speaker
Chair: Huw Taylor (UK) and Andrew Wither (UK)

BREAK

Roger Fujioka (USA) and Helena Solo-Gabriele (Moderator, USA)
"Methods to assess and reduce risk of microbes in sands" - Helena Solo-Gabriele (USA)
"Microbiological quality assessment of sand from beaches in Portuguese coast: fifteen years" - João Brandão (PT)
"E. coli stains may be endemic in soils and sands" - Richard Whitman (USA)
"Fungal diversity in indoor swimming pools" – Sílvia Monteiro (PT)
"Temporal variability of microcystin (mcyA) genotypes in a toxic cyanobacterial bloom" - Catarina Churro (PT)
"Recreational water microbiology: science and the regulatory challenge" - David Kay (UK)
"RiskManche: the transport and fate of enteric organisms in catchments and coastal waters" - Huw Taylor (UK)
"Addressing regulation at a multinational level" - Andrew Wither (UK)
"The role of E. moraviensis as a faecal indicator" – Maja Tau
"inputs into the river Tejo, Portugal" – Sílvia Monteiro (PT)
"An assessment of the suitability of MST methods to determine human and non-human faecal
in filtered water samples" – Célia Barardi (BR)
"Recombinant adenovirus as a model to evaluate the efficiency of free chlorine disinfection
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ASSESSMENT AND MANAGEMENT OF EMERGING RISKS: A TOOL TO INSURE FOOD SAFETY
Chair: Mike Sadowsky (USA) and Jorge Machado (PT)
FOODBORNE PATHOGENS: GEOGRAPHICAL DISTRIBUTION, CHARACTERIZATION AND EPIDEMIOLOGY
Study Case
Invited Speaker
Keynote Speaker
Chair: Robert Samson (NL) and Manuela Cano (PT)

Toxic Bacterial Contaminants
Break
Marine Phycotoxins
Mycotoxins
Freshwater Phycotoxins
WORKSHOP ON MICROBIAL TOXINS IN PUBLIC HEALTH

WELCOME AND REGISTRATION

Moderators: Elsa Dias (PT), Susana Viegas (PT), Vitor Vasconcelos (PT), Mike Sadowsky (USA) and Dick Heederik (NL)
"Occupational exposure to mould and microbial metabolites during onion sorting" - Stephan Mayer (DE)
"Microbiological contamination assessment in settle dust: case-study in elderly homes" - Tiago Faria (PT)
"ARIA Project: Indoor Air Biological Assessment in Primary Schools" - Lívia Aguiar (PT)
"Biological indoor air assessment in elderly care centers: the GERIA project" - Ana Mendes (PT)
"Indoor microbiological contamination in children day care centres: the ENVIRH study" - Manuela Cano (PT)
"QPCR determination of microbes in relation to mould and dampness observations in homes" - Martin Täubel (SF)
"New findings on the indoor mycobiota: will it change our concept of indoor health?" - Robert Samson (NL)
"Aquatic Algae as a Source and Sink of Bacterial Toxins in Waterways" - Michael Sadowsky (USA)
"Freshwater phycotoxins" - Elsa Dias (PT)
Keynote entitled: **Current perspectives of emerging antibiotic resistance in foodborne bacteria**

Author: Manuela Caniça

_National Reference Laboratory of Antibiotic Resistances and Health Associated Infections (NRL-AMR-HAI), Department of Infectious Diseases, National Institute of Health Dr. Ricardo Jorge_

Abstract:

The increasing occurrence of antibiotic resistance in primary and processed food products, it is of the greatest importance, where the horizontal gene transfer of antibiotic resistance determinants is of huge concern. Indeed, common inhabitants of the human and animal gut of food animals may be disseminated through the food chain. The widespread use of drugs in veterinary can also contribute to the selection of antibiotic resistance mechanisms in pathogenic and non-pathogenic isolates. The common mode of plasmid-mediated resistance (one gene for one class of antimicrobials) requires that an organism harbor and express an array of genes in order to maintain multidrug-resistance; however, for example, at fluoroquinolone resistance, bacteria have an innovation that is a pleiotropic drug-modifying enzyme providing resistance to two structurally and functionally different classes of antibiotics by acquisition of a single gene. But other resources are available to the bacterium confronted with the challenge of antibiotics that is the ability to acquire resistance genes, but not express them; such “nonexpressing” bacteria would remain sensitive to the antibiotic while carrying a potentially transmissible resistance gene. Biofilm formation is also an important phenomenon in the food process. A new dimension in microbial adaptability is taking serious proportions, thus the Council Recommendation “on the prudent use of antimicrobials agents in human medicine” (2002/77/EC), highlight that the “coordination between human, veterinary and environment sectors should be ensured and the magnitude of the relationship between the occurrence of antimicrobial resistant pathogens in humans, animals and the environment should be further clarified”. In fact, a “One Health” approach is being encouraged.