

**Joint  
Environment and Human Health  
Programme**

**Annual Science Day Conference & Workshop  
24<sup>th</sup> and 25<sup>th</sup> February 2009**

**University of Birmingham**

# Programme

## DAY 1

0930 Introduction – Prof. Anthony Seaton (Chairman, SAC) & Prof Mike Moore (Science Coordinator)

### ***ENVIRONMENTAL TOXICOLOGY***

Chairman – Dr Jim Wharfe

- 0945 Dr Kieran Tuohy – Model human digestive system for the determination of bioaccessibility of environmental pollutants  
1000 Dr Dave Spurgeon – Modelling and measurement of cadmium exposure and pathology in human volunteers living in proximity to a smelter source  
1015 Dr Hui Wang – Plant virus infection as a determinant of pollen allergenicity

1030 COFFEE & POSTERS

### ***ENVIRONMENTAL EPIDEMIOLOGY & CLIMATE CHANGE***

Chairman – Prof Anthony Seaton

- 1100 Dr Ruth Doherty – Impacts of future environmental change on climate and air pollution-mediated human health  
1115 Dr Roger Few – Seasonal environmental hazards: a multi-disciplinary approach to the analysis of health risks in lower-income countries  
1130 Rachel Smith – Born in Bradford; environmental exposure and birth weight  
1145 Prof John Atkinson – Micronutrient deficiency in maternity and child health: exploring agricultural, medical and social influences on Fe and Zn deficiencies  
1200 Dr Richard Mitchell – Multiple environmental classification of areas for researching spatial health inequalities  
1215 Dr Paul Harris – Identification and verification of ultrafine particle affinity zones in urban neighbourhoods

1230 LUNCH & POSTERS

- 1400 Invited lecture  
Prof Norman Ratcliffe – Insects and other invertebrates as possible sources of anti-microbial factors against drug-resistant bacteria

### ***WORKSHOP on Environmental Risk Perception***

Chairman – Prof Mike Moore

- 1430 Prof Robert Maynard - Perceptions of risks to health from environmental sources  
1450 Dr Jim Wharfe (EA) - Environment and human health: issues of concern from an Environment Agency perspective  
1500 Dr David Russell (HPA)  
1510 Dr Adrian Baker (MoD)  
1520 Dr Martin Williams (Defra)

1530 COFFEE & POSTERS

- 1600 Breakout Session 1  
1700 Breakout Session 2

1800 DRINKS RECEPTION and POSTERS

2000 DINNER

## **DAY 2**

### ***WORKSHOP on Environmental Risk Perception***

Chairman – Prof Mike Moore

0930 Reporting on Breakout Sessions and discussion

1115 COFFEE & POSTERS

### ***MICROBIAL INFECTIONS & TOXINS***

Chairman – Prof Anthony Seaton

1145 Dr Richard McNally – Space-time clustering analyses of type 1 diabetes in children from northern England

1200 Dr Peter Hunter – Strategies for monitoring and managing toxic cyanobacteria in inland waters

1215 Dr Sean Tyrrel and Prof Simon Jackson – Endotoxin emissions from commercial composting activities

1230 Dr Lizeth Lacharme-Lora – Helminths as reservoirs/vectors of food-borne pathogenic bacteria in the environment

1245 Prof Alistair Grant – Is the water safe to drink?

1300 LUNCH & POSTERS

### ***PARTICLE-RELATED TOXICOLOGY***

Chairpersons - Prof Ken Donaldson & Prof Vicki Stone

1345 Prof Roy Harrison – Determinants of oxidative potential: a health-based metric to assess particulate matter toxicity

1400 Prof Ken Donaldson – A proof of concept study for a structure-activity model for the toxicity of nanoparticles

1415 Dr Michaela Kendall – Nanotoxicology of fine PM: the role of surfactant and collectins in short-term health effects of PM air pollution

1430 Deborah Berhanu – Hazards of nanoparticles to the environment and human health

1440 COFFEE

1500 Prof Ian Matthews – An exploratory study investigating the physiochemical characteristics of ambient air particles responsible for the dysregulation of pulmonary genes and related proteins

1515 Prof Vicki Stone – Inter-species assessment of exposure, uptake and toxicity of nanoparticles from contaminated environments

1530 Dr Steve Francis – Exploring the link between surface structures and toxicity in mineral particles; case study of induced and intrinsic toxicity of quartz

1545 General Discussion

1600 CLOSE – Dr Pamela Kempton (Science & Innovations Manager, NERC)

## **POSTERS**

- A UK Network for Environmental and Food Virology  
*Dr Nigel Cook*
- Health benefits of 'grow your own' food in urban areas: exposing a fundamental flaw in contaminated land risk assessment  
*Dr Andrew Adam-Bradford (PI: Dr J Leake)*
- Relating harmful phytoplankton to shellfish toxicity and human health  
*Dr Eileen Bresnan (PI: Dr K Davidson)*
- AirPath - Pathogens in Air, Outdoor Environments and Human Health  
*Dr Ka Man Lai*
- Case Studies in Bayesian microbial risk assessments: BAMRA working group  
*Dr Marc Kennedy (PI: Dr Helen Clough)*
- A network for the study of the properties and respiratory health effects of natural mineral dust  
*Dr Peter Baxter (PI: Dr Claire Horwell)*
- A preliminary assessment of levels of bioavailable anthropogenic platinum-group, lanthanide and high field strength metals in human tissue and DNA  
*Dr Sanjeev Bagga (PI: Prof David Pearson)*
- Key issues and research opportunities in human health and the environment: results from the interdisciplinary MULTITUDE workshop  
*Professor Michael Ramsey*
- Environmental Effects on the Nutritional Quality and Safety of Organic and Conventional Foods  
*Dr Caroline Rymer (PI: Prof David Givens)*
- Going Underground: Human Health Risks from Pathogens in the Soil-Water Environment  
*Prof Steve Banwart*