MRC-PHE
Centre for Environment & Health

Public Health England | MRC Medical Research Council | Imperial College London | King's College London

ANNUAL INTERNATIONAL SCIENTIFIC ADVISORY BOARD MEETING

King's College London

Strand campus, Strand, London WC2R 2LS

Monday 8 May 2017

09:00 – 09:30 **Registration and refreshments**

Anatomy Museum, Level 6, King's Building

09:30 – 12:55 **Morning Plenary Session for Centre members**

Anatomy Lecture Theatre, Level 6, King's Building

Chaired by Professor Frank Kelly

09:30 – 10:00 Welcome, Introduction and Overview – Paul Elliott

10:00 – 10:15 Discussion

10:15 – 11:15 Training Programme (including PhD studentships and Early-Career Fellowships

10:15 – 10:30 Overview of the Centre Training Programme – Fred Piel

10:30 – 11:05 Five-minute presentations from Centre PhD students/Fellows

- *Cord blood metabolic signatures of birthweight - Oliver Robinson*
- *Air Pollution: should microplastics be considered an atmospheric pollutant - Joseph Levermore*
- *Identifying biomarkers of Exposure leading to Lung Cancer and CVD with Adductomics - Sonia Dagnino*
- *Relations of environmental and nutritional risk factors to cardiovascular health in China - Li Yan*
- *Seasonal dynamics of mortality in the United States from 1982 to 2013 - Robbie Parks*

Questions (10 minutes)

11:05 – 11:15 Researchers' Society – Anna Freni Sterrantino

11:15 – 11:45 Refreshments break

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11:45 – 12:55 Update on results from selected projects

11:45 – 12:05 Pathway perturbation and meet-in-the-middle in the EXPOsOMICS project – Paolo Vineis

12:05 – 12:15 'Omics signatures of the early life exposome in HELIX – Muireann Coen

12:15 – 12:25 Mechanisms of carcinogenesis – Volker Arlt

12:25 – 12:35 Impacts of London's road traffic air and noise pollution on foetal growth – Mireille Toledano

12:35 – 12:45 Modelling of public health impacts of different climate policies in the UK – Martin Williams

12:45 – 12:55 Ultra-fine particles in EXPOsOMICS: exposure assessment and epidemiologic analysis – John Gulliver

12:55 – 14:30 Poster Session and Buffet Lunch

K4U.12, Level 4, King's Building

14:30 – 16:45 Afternoon Plenary Session for Centre members

Anatomy Lecture Theatre, Level 6, King's Building

Chaired by Professor Paul Elliott

14:30 – 14:45 Patient and Public Engagement/Involvement – Ian Mudway & Mireille Toledano

14:45 – 16:45 Planned Research Areas (15 minute presentations including questions)

14:45 – 15:00 Impact of air pollution on mental illness in early adulthood – Sean Beevers

15:00 – 15:15 Applying GWAS to prioritise compounds in untargeted metabolomics for Mendelian Randomization studies – Abbas Dehghan

15:15 – 15:30 Dementia Research Institute Programme – Elaine Holmes

15:30 – 15:45 Bayesian modelling for chronic disease surveillance – Marta Blangiardo

15:45 – 16:00 Metabolic signature of atherosclerosis – Ioanna Tzoulaki

16:00 – 16:15 Diesel Mitigation Study – Ian Mudway

16:15 – 16:45 Open Discussion

16:45 – 17:00 Lecture Theatre opens for Annual Guest Lecture

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17:00 - 18:00 Annual Distinguished Guest Lecture

Introduction: Professor Sir Robert Lechler
Speaker: Professor Frans Berkhout

Title: *Planetary Health: making sense of the research and policy opportunities*

Anatomy Lecture Theatre, Level 6, King's Building

18:00 - 18:45 Drinks reception

Anatomy Museum, Level 6, King's Building

Abstract: Planetary Health: making sense of the research and policy opportunities

The Rockefeller-Lancet Commission on Planetary Health (2015) launched an ambitious new framework for understanding the complex and global interactions between global health and well-being, and environmental change and risks. Planetary Health, defined as '…the health of human civilisation and the state of the natural systems on which it depends' seeks to integrate health and environment research and policy at a fundamental level. Looking at the burden of disease worldwide, a substantial proportion of this is either directly or indirectly influenced by environmental risks. Achieving many global health goals depends on improvements in environmental quality and the sustainable management of environmental systems and services, while much of the justification for action on environmental change, including climate change and biodiversity protection, depends on health co-benefits. The challenge now is to make sense of the very broad agenda which the Planetary Health concept offers, and to make some choices about where the most significant research and policy opportunities appear to lie. The talk will set out the Planetary Health concept and discuss some key challenges for research and policy which emerge.

Frans Berkhout
King's College London

Frans Berkhout is Executive Dean of the Faculty of Social Science and Public Policy and Professor of Environment, Society and Climate in the Department of Geography at King's College London. From 2013-2015 he was Director of the Future Earth programme, based at the International Council for Science (ICSU) in Paris. Before that, Prof Berkhout directed the Institute for Environmental Studies (IVM) at the VU University Amsterdam in The Netherlands, and led the Amsterdam Global Change Institute. Among other advisory roles, Professor Berkhout was a lead author in two Assessment Reports of the Intergovernmental Panel on Climate Change (2007 and 2014) and a member of the 2014 Research Excellence Framework (REF) of the UK Higher Education Funding Council for England (HEFCE). He is chair of UK Future Earth, a joint committee of four UK scientific academies. He sits on the editorial boards of *Research Policy, Journal of Industrial Ecology, Current Opinion on Environmental Sustainability, Environmental Innovation and Societal Transitions, Energy Research & Social Science* and *The Anthropocene Review*. His early research was concerned with the economic, political and security aspects of the nuclear fuel cycle and radioactive waste management. Over the last 20 years, his work has been concerned with science, technology, policy and sustainability, with a focus on climate change. His main academic contributions have been to the understanding of innovation in socio-technical systems and adaptation to climate change impacts by organisations.