



The **Academy of  
Medical Sciences**

## **Non-experimental methods call for evidence**

### **Overview**

The Academy of Medical Sciences has established a working group to produce a set of principles, illustrated with specific examples, to determine the potential problems and likely success of non-experimental methods in biomedical research. The foundations of this proposal lie in a feeling of public scepticism about the value of non-experimental approaches in biomedical research, which arises when claims from one study are so soon reversed by the findings of another. For example, until recently Hormone Replacement Therapy was thought to be protective against heart disease but is now thought to be a risk factor. Nevertheless, in some cases, non-experimental methods have clearly been successful, for example in determining the health risks associated with smoking.

The project will consider the biomedical sciences as a whole, not just epidemiology. The output will be a short authoritative report, accessible to both the specialist and lay reader, that will inform academics, health professionals, policy-makers, the media and public on the best use of non-experimental data.

### **Terms of Reference**

The working group's Terms of Reference are as follows:

- To investigate the strengths, limitations and potential of non-experimental methods.
- To investigate the lessons that might be learnt from successful and less successful examples of non-experimental research.
- To investigate how non-experimental studies should deal with complex multi-factorial causes.
- To investigate how experimental and non-experimental approaches should be coordinated to identify causal mechanisms of disease.
- To investigate how non-experimental research is communicated, the value placed by individuals, society and government upon such research and how the results impact on policy and the decision-making of individuals.

The working group will not:

- draw conclusions in relation to any particular disease outcome or set of risk factors other than as examples to help illustrate broader principles; or
- consider issues related to legal liability.

### **Submission of evidence**

As part of the activities of the working group, the Academy now invites evidence and views on any of the issues covered within the Terms of Reference. Where possible,

submissions should be illustrated with specific examples. Submissions should be four pages or fewer in length, in which references to the appropriate literature are provided and any additional data are included in an appendix.

**The deadline for written evidence is 15 December.**

Please submit evidence to:

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The Academy may publish evidence received; please indicate if you do not wish your submission to be made public. This is a public call for evidence and the working group would be grateful if it could be brought to the attention of any relevant groups or individuals who may not be aware of it.

**Working group membership**

The membership of the working group who are conducting this study are as follows:

**Sir Michael Rutter, CBE FRS FBA FMedSci (Chairman)**

Vice-President  
Academy of Medical Sciences

**Professor Philip Dawid**

Professor of Statistics  
University College London

**Dr Aroon Hingorani**

Reader and Honorary Consultant and British Heart Foundation Senior Fellow  
University College London

**Dr Richard Horton, FMedSci FRCP**

Editor  
The Lancet

**Professor Peter Jones, FMedSci**

Professor of Psychiatry  
University of Cambridge

**Professor Kay-Tee Khaw, CBE FMedSci**

Professor of Clinical Gerontology  
University of Cambridge

**Dr Bill Kirkup**

Director General for Programmes  
Department of Health

**Professor Terrie Moffitt, FBA FMedSci**  
Professor of Social Behaviour and Development  
Institute for Psychiatry

**Dr Geoff Mulgan**  
Director  
Young Foundation

**Professor Catherine Peckham, CBE FMedSci**  
Professor of Paediatric Epidemiology  
Institute for Child Health

**Professor Andrew Pickles**  
Professor of Epidemiological and Social Statistics  
The University of Manchester

**Professor Robert Souhami, CBE FMedSci**  
Emeritus Professor of Medicine  
University College London

**Dr Geoff Watts, FMedSci**  
Freelance Science and Medical Journalist

**Laurie Smith (*Secretariat*)**  
Senior Officer, Medical Science Policy  
Academy of Medical Sciences

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The Executive Director of the Academy is Mrs Mary Manning.

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