



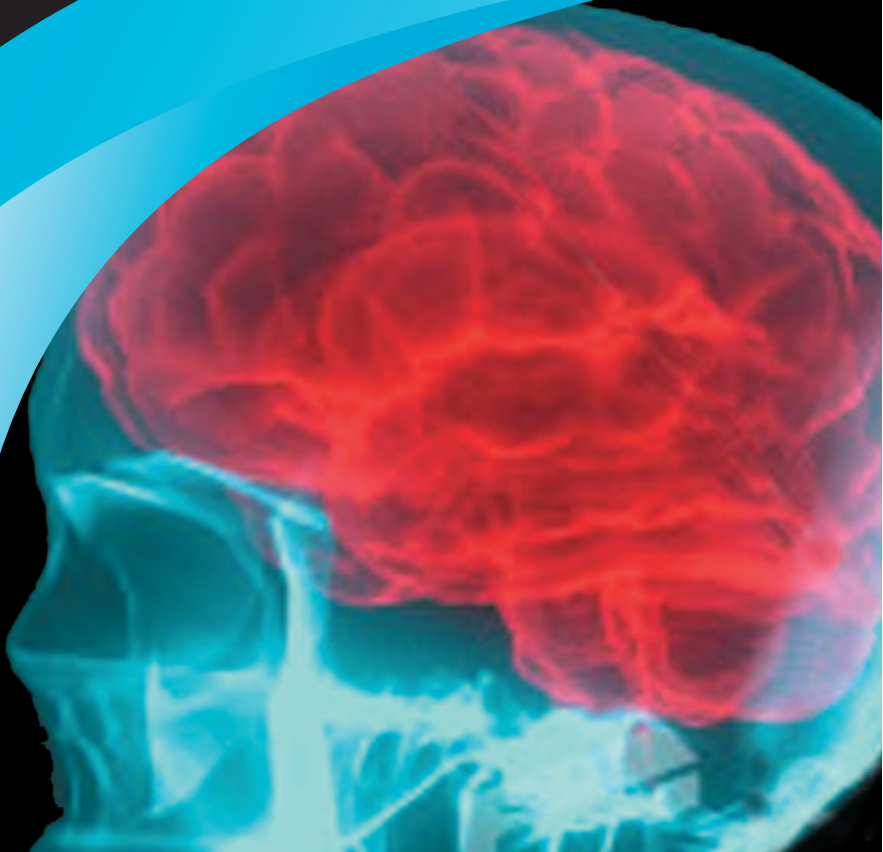
The Royal Academy
of Engineering

UK Focus for
Biomedical Engineering

Watching the brain at work: breakthroughs in functional imaging

23 January 2007
2.00pm for 2.30pm

29 Great Peter Street
London SW1P 3LW



Watching the brain at work: breakthroughs in functional imaging

Modern imaging techniques are now able to observe not only the structure of the human body, but also its most intimate workings. Functional imaging of the brain has made remarkable progress in recent years, particularly with functional MRI, so that neurologists and psychologists are able to investigate difficult problems like consciousness and perception as well as to map brain regions involved in particular mental tasks. New methods are being developed such as optical tomography and topography, and there is now a great potential for rapid advances in neuroscience based on these advances in engineering science.

This briefing session provides examples of recent advances which are particularly exciting, not only for the advancement of knowledge but the practical application of functional imaging techniques in medicine and surgery.

The briefing will be chaired by Professor David Edwards FMedSci of Imperial College London, who is a member of the UK Focus for Biomedical Engineering (hosted by The Royal Academy of Engineering). The meeting has been organised by Professor David Edwards and Dr Mark Tooley (Royal United Hospital Bath).

Programme

- | | |
|--------|---|
| 2.00pm | Registration |
| 2.30pm | Chairman's introduction
Professor David Edwards FMedSci |
| 2.45pm | Introduction to Functional Imaging
Professor David Delpy FEng FRS FMedSci, Professor of Medical Optics and Vice-Provost (Research)
University College, London |
| 3.15pm | Imaging Consciousness
Professor Geraint Rees, Senior Clinical Fellow and Professor, University College London, and Honorary Consultant Neurologist, National Hospital for Neurology and Neurosurgery, Institute of Cognitive Neuroscience, London |
| 3.45pm | Imaging and Perception
Dr Adrian Chung, Lecturer, Department of Computing Imperial College London |
| 4.15pm | Discussion |
| 5.30pm | Refreshments |
| 7.00pm | Close |

Watching the brain at work: breakthroughs in functional imaging

**I wish to book a place to attend the briefing seminar on 23 January 2007
(2.30pm to 5.30pm)**

**I will/will not* attend the drinks reception which will follow the seminar
(5.30pm to 7.00pm)**
*(*delete as appropriate)*

Title: _____

First Name: _____

Surname: _____

Honours: _____

Position: _____

Organisation: _____

Address: _____

Postcode: _____

Telephone: _____

Email: _____

This form may be photocopied if you wish to book more than one place.

The Academy is keen to receive feedback on the value of its activities. Please tick this box if you are content for us to contact you by email after this event as part of our evaluation programme and to inform you of future UK Focus for Biomedical Engineering Briefing Seminars. Please also ensure that we have your correct email address.

Please return to:

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Email: sylvia.hearn@raeng.org.uk

The Royal Academy of Engineering

As Britain's national academy for engineering, we bring together the country's most eminent engineers from all disciplines to promote excellence in the science, art and practice of engineering. Our strategic priorities are to enhance the UK's engineering capabilities, to celebrate excellence and inspire the next generation, and to lead debate by guiding informed thinking and influencing public policy.

The Academy's work programmes are driven by three strategic priorities, each of which provides a key contribution to a strong and vibrant engineering sector and to the health and wealth of society.

Enhancing national capabilities

As a priority, we encourage, support and facilitate links between academia and industry. Through targeted national and international programmes, we enhance – and reflect abroad – the UK's performance in the application of science, technology transfer, and the promotion and exploitation of innovation. We support high quality engineering research, encourage an interdisciplinary ethos, facilitate international exchange and provide a means of determining and disseminating best practice. In particular, our activities focus on complex and multidisciplinary areas of rapid development.

Recognising excellence and inspiring the next generation

Excellence breeds excellence. We celebrate engineering excellence and use it to inspire, support and challenge tomorrow's engineering leaders. We focus our initiatives to develop excellence and, through creative and collaborative activity, we demonstrate to the young, and those who influence them, the relevance of engineering to society.

Leading debate

Using the leadership and expertise of our Fellowship, we guide informed thinking, influence public policy making, provide a forum for the mutual exchange of ideas, and pursue effective engagement with society on matters within our competence. The Academy advocates progressive, forward-looking solutions based on impartial advice and quality foundations, and works to enhance appreciation of the positive role of engineering and its contribution to the economic strength of the nation.

UK Focus for Biomedical Engineering

The UK Focus for Biomedical Engineering provides a forum through which the principal organisations concerned with biomedical engineering can communicate, debate and act jointly upon issues which affect the field as a whole. It seeks to influence high level decision makers in the Department of Health, central government, research funding sources and industry by highlighting the important contribution that biomedical engineering makes to healthcare and by encouraging industry to exploit the opportunities available in this field.



The Royal Academy of Engineering promotes excellence in the science, art and practice of engineering.

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