

# THE PARLIAMENTARY AND SCIENTIFIC COMMITTEE

AN ASSOCIATE PARLIAMENTARY GROUP  
INCLUDING MEMBERS OF THE ASSOCIATE PARLIAMENTARY ENGINEERING GROUP

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## MEETING OF THE COMMITTEE

on **TUESDAY, 1<sup>st</sup> FEBRUARY 2011 AT 5.30 pm**  
**IN THE BOOTHROYD ROOM, PORTCULLIS HOUSE\***

(Please recheck the room allocation on <http://www.scienceinparliament.org.uk> on the day)

## **MEDICAL PHYSICS: FROM BLUE-SKIES TO BEDSIDE. TURNING TODAY'S CUTTING-EDGE SCIENCE INTO TOMORROW'S HEALTHCARE TECHNOLOGY**

Addresses by

### **Dr Andy Simmons PhD CSci FIPEM**

Reader in Neuroimaging and Consultant Clinical Scientist  
King's College London Institute of Psychiatry, South London and Maudsley NHS  
Foundation Trust and NIHR Biomedical Research Centre for Mental Health

### **Professor Nicholas Stone MBA PhD CSci FIPEM**

NIHR Senior Research Fellow, Consultant Clinical Scientist and Head of  
Biophotonics Research  
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### **Dr Carl Rowbottom PhD CSci FIPEM CPhys MInstP**

Radiotherapy Physics Group Leader  
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Medical physics is concerned with the application of physics to medical diagnosis and treatment. There are around 2000 physicists employed in the NHS, with others working on medical applications in academia and industry. It is an area in which the socio-economic impact of physics is particularly clearly demonstrated, yet is firmly rooted in fundamental science. In this session, three medical physics topics will be presented.

- Magnetic Resonance Imaging (MRI) provides a window into the body, and may have the potential to help us understand the functioning of the mind.
- New optical techniques are harnessing the power of light for non-invasive molecular diagnosis.
- Modern radiotherapy allows precise targeting of cancer, with proton and heavy ion therapy about to open up new treatment possibilities.

These topics demonstrate the breadth of the subject, the relationship between basic physics and translation into clinical practice, and the common dependence on serendipitous spin-offs from past investment in fundamental science.

### **Andrew Miller MP**

Chairman

**The Meeting will be followed by an Open Informal Reception and Chairman's Dinner by Invitation  
Sponsored by The Institute of Physics and Engineering in Medicine (IPEM)**

\*The Boothroyd Room can be accessed via the Embankment Entrance to Portcullis House