



**PHOTONEX**<sup>®</sup> LONDON

Photonics Technology Roadshow



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Institute of Physics  
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# Advances in photonic tools and techniques for the life sciences

**Date: Tuesday 9th April 2013**

**FREE ENTRY**

**Venue: Wilkins JBR, UCL, Gower Street, London**

**ADVANCE REGISTRATION IS NECESSARY**, please register on-line at: [www.photonex.org/london](http://www.photonex.org/london)

## PROGRAMME

10.00 **Introduction and welcome.**

*Dr Cyril Renaud of the programme committee.*

### Session 1

#### Optical, Photoacoustic and Diffuse Tomography

Chairs: Ilias Tachtsidis & Chris Dunsby

10.05 **Tomography in medical imaging.**

*Prof Simon Arridge, Professor of Image Processing, Centre for Medical Image Computing, Faculty of Engineering Science, University College London*

10.30 **Application of Diffuse Optical Imaging in Breast Cancer Characterization and Neuroimaging.**

*Dr Hamid Dehghani, Senior Lecturer in Medical Imaging, School of Computer Science, The University of Birmingham.*

10.55 **Photoacoustics technology and application.**

*Prof. Paul Beard, Professor of Biomedical Photoacoustics, Dept. Medical Physics and Bioengineering, University College London*

11.20 - refreshment break in the North Cloisters -

### Session 2

#### Optical Therapy and Diagnostics

Chairs: Ilias Tachtsidis & Chris Dunsby

11.55 **Light-sensitive ion channels and transporters: prospects for treatment of epilepsy.**

*Prof Dimitri Kullmann, Professor of Neurology, Clinical & Experimental Epilepsy, Institute of Neurology, Faculty of Brain Sciences, University College London*

12.20 **Quantitative Contrast Imaging in Oral Medicine.**

*Dr Oluyori Adegun, Honorary Clinical Lecturer, Clinical and Diagnostic Oral Sciences, Institute of Dentistry, Barts and the London School of Medicine and Dentistry, Queen Mary University of London*

12.45 **Shedding New Light on Living Systems with Nonlinear Optics.**

*Dr Julian Moger, Senior Lecturer in Biological Physics, University of Exeter*

13.10 - lunch break in the North Cloisters -

### Session 3

#### Frontiers of Microscopy & Super-Resolution

Chairs: Ilias Tachtsidis & Chris Dunsby

14.10 **Fluorescence lifetime imaging across the scales.**

*Prof Paul French, Photonics Group, Department of Physics, Imperial College London*

14.35 **Using the mouth as a model for optical diagnostic technologies.**

*Dr Frederic Festy, Senior Lecturer, Dental Institute, King's College London*

15.00 **Adaptive optics from microscopy to nanoscopy**

*Dr Martin Booth, EPSRC Advanced Research Fellow, Optical Microscopy Group, University of Oxford*

15.25 **Bayesian approach to super-resolution microscopy**

*Dr Susan Cox, Fellow, Randall Division of Cell & Molecular Biophysics, King's College London*

15.50 - end of meeting -

## PROGRAMME COMMITTEE

### Dr Christopher Dunsby

Photonics, Department of Physics and the Division of Experimental Medicine in the Department of Medicine. Imperial College London

### Dr Pete Tomlins

Centre for Diagnostic and Oral Sciences. Queen Mary, University of London.

### Dr Ilias Tachtsidis

Biomedical Optics Research Laboratory. University College London

### Dr Cyril Renaud

Ultra-fast Photonics Laboratory. University College London

## ADMINISTRATION AND ORGANISATION

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