

AIMS:

Aim of the workshop is to discuss the possible biological and biomedical uses of the new light sources that are under construction or being considered for construction in Italy, in the UK and in Europe. A selected arena of interested national and international users will be introduced to the potential of new light sources with respect to novel experimentations in the life sciences field, also as a means of advising institutional investors and facilities managers on the relevance of an appropriate support to these developments. This workshop follows a similar event held in March 2009 at the British Embassy in Rome, originated from the fruitful collaboration between Italian and British Universities

The workshop is organized by the Italian Embassy in London in cooperation with CNR and INFN in Italy, and with the STFC and Diamond Light Source in the United Kingdom. It is promoted by the SPARX Project (under construction at the University campus of Roma "Tor Vergata"), by the British New Light Source project and by the ESRF, and is sponsored by the Italian Ministry of Research and by the Lazio Region.

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in collaboration with



Consiglio Nazionale delle Ricerche



**Science & Technology
Facilities Council**

Imaging and life sciences applications of new light sources

An Italy-UK workshop

26 March 2010

*The Italian Cultural Institute
39 Belgrave Square
London SW1X 8NX*



PROGRAMME:

9:00 *Registration and refreshments*

9:30 **Welcome Address**
The Italian Ambassador to the UK

Introductory Remarks

Jon Marangos (Imperial College London)

10:00 **Keynote Address**
Gerhard Materlik (Diamond Light Source)
Visions for future light source science

Session I

Chair: Luigi Palumbo (INFN, Italy)

10:25 Fulvio Parmigiani (Univ. Trieste, Italy)
Exploring the Science Frontiers with the FERMI@Elettra Free Electron Laser

10:50 Richard Walker (Diamond Light Source)
The design of New Light Source

11:15 *Coffee break*

11:35 Silvia Morante (University of Roma Tor Vergata, Italy)
SPARX-FEL Project: the Bio-Science case

12:00 David Klug (Imperial College London)
2D FIR measurements of proteins using high power multi-colour THz beams

12:25 Anton Barty (DESY, Germany)
Recent Progress in X-ray Imaging with FELs

12:50 *Lunch*

Session II

Chair: Andrea Aparo (Finmeccanica)

14.10 Cristina Messa (Univ. Milano Bicocca and IBFM-CNR, Italy)

Diagnostic molecular imaging: a research tool ready for clinical application

14:35 Ralf Menk (ELETTRA Trieste, Italy)
New R&D imaging technique available for cancer research

15:00 Guido Cavaletti (Università di Milano Bicocca, Italy)
Nanomedicine in Biomedical Science

15:25 **Round Table and discussion session**
Future perspectives in Italy/UK collaboration with light sources

Chair: Dame Louise Johnson (Univ. Oxford)

Panelists: Andrea Aparo (Finmeccanica)
Luca Federici (Univ. Chieti, Italy)
Massimo Inguscio (CNR, Italy)
David Klug (Imperial College London)
Gerhard Materlik (Diamond)
Richard Walker (Diamond)

16:30 *Close*