



FOM 2007

Focus on Microscopy 2007

Tuesday April 10th - Friday April 13th, 2007
Valencia, Spain

Dear Colleagues,

We would like to announce the next conference in the FOM series. It will take place in Valencia, Spain from Tuesday April 10th to Friday April 13, 2007. Please note that this is in the week after Easter 2007.

The conference will take place at the University of Valencia campus. Details of registration, abstract submission, deadlines etc. will become available at the website <http://www.focusonmicroscopy.org>.

Microscopic imaging techniques like confocal, multiphoton excitation or wide-field deconvolution have become indispensable tools for the study of biological complexities and dynamics. Image analysis, correlation, visualization and data management are key to successfully studies of the underlying biological processes taking place in cells and tissues. On the other hand, the tremendous developments in hardware and software for microscopic imaging of cells have to go hand in hand with developments in fluorescence and dye labelling methodology.

Valid labelling that requires high specificity and spatial resolution in combination with a minimum of disturbance of the physiological processes in cells is essential for our understanding how cells work. (Fluorescence) staining and labelling of cells and tissues have traditionally been the discipline of histochemists and cytochemists. It is the conviction of the organizers of FOM that it is now the time to approach microscopy in an integrated way to optimize labelling of cells and tissues, microscopical imaging and image analysis.

Laser light in combination with 3D microscopy is starting to play an increasingly important role as a tool at the submicrometer scale in cell biology for dissection and isolation of structures of interest for subsequent analysis. Specific sessions on this subject and advances in endoscopic imaging and non-invasive imaging are expected at FOM2007.

Typical topics of the upcoming FOM conference will include:

- Confocal and multiphoton-excitation microscopes
- Novel illumination and detection strategies - selective plane, extended depth of focus, 4pi, structured illumination
- Fluorescence - new labels, fluorescent proteins, quantum dots, single molecule, excitation-emission spectroscopy
- Time-resolved fluorescence - FRET, FRAP, FLIM, FCS
- Coherent non-linear microscopes - SHG, THG, SFG, CARS
- Scattering processes: Raman, light scattering spectroscopy, second harmonic
- Multi-dimensional imaging
- Sub-wavelength resolution - near field microscopy, total internal reflection
- Laser manipulation, ablation and micro dissection, photo activation
- Magnetic resonance and X-ray microscopy
- Image processing and visualisation
- Live cell and tissue imaging
- Whole tissue imaging - optical coherence tomography, endoscope, whole animal fluorescence
- Optical tools in genomics, proteomics, phenomics, cytometry

A technical exhibition will be a feature of the 2007 Valencia conference.

The programs of the previous 2006, 2005 and 2004 FOM conferences together with the page abstracts of contributions that have been presented at these meetings can be viewed in PDF format at <http://www.focusonmicroscopy.org>

We are welcoming you to the Valencia FOM2007 conference and exhibition.

On behalf of the FocusOnMicroscopy society

- Manuel Martinez-Corral, University of Valencia, Spain
- Fred Brakenhoff, University of Amsterdam, The Netherlands

