

TUESDAY				
	LIFE	NEW FRONTIERS	MATERIALS	Satellite Symposium
Symposia title	L1.1 Using the F-words (FLIM/FRET/FRAP/FLIP etc) to explore fundamental biology	N1.1 Developments in 3D imaging for Biology	M1.1 Applications of aberration corrected TEM/STEM	
Organisers	Prof Dan Davis (Imperial College London) and Dr Alison Roberts (Scottish Crop Research Institute)	Prof Chris Hawes (Oxford Brookes) & Kim Findlay (John Innes Centre)	Prof Andrew Bleloch (University of Liverpool) and Prof Joachim Mayer (RWTH Aachen)	
09.00am	Plenary- Dr Jennifer Lippincott Schwartz (NIH) Seeing Cells in Action with Photoactivatable Fluorescent Proteins			
10.00am	Break			
10.30am	INVITED An integration of optical imaging and mathematical approaches to define pathways and make predictions for cancers, <b>Prof Tony Ng (UCL)</b>	INVITED Focused ion beam scanning electron microscopy in cell biology, <b>Dr Bruno Humbel (University of Lausanne)</b>	INVITED Electron microscopy has reached 0.5 Å resolution. What is next? <b>Dr Christian Kisielowski (University of Berkeley, USA)</b>	
10.45am				
11.00am	No Need to FRET, <b>Dr Josef Lazar (Inst. Of Systems Biology and Ecology)</b>	Optimization of STEM tomography acquisition – A comparison of convergent beam and parallel beam STEM tomography, <b>Dr Johannes Biskupek (Ulm University)</b>	Developments in aberration corrected TEM/STEM at the University of Sheffield, <b>Dr Ian Ross (University of Sheffield)</b>	
11.15am	Controlled light exposure microscopy (CLEM), new developments and applications, <b>Dr Ron Hoebbe (University of Amsterdam)</b>	Novel microoptics-based spinning disk concept, <b>Dr. Rainer Uhl (TILL Photonics GmbH)</b>	Three-dimensional atomic structure and surface dynamics of size selected Au923 clusters, <b>Dr Zhiwei Wang (University of Birmingham)</b>	
11.30am	Optical Assays for Protein Conformational Changes and Interactions in Living Cells, <b>Dr Muhammad Awais, (University of Liverpool)</b>	INVITED Imaging cells using correlated fluorescence and x-ray tomography, <b>Prof Carolyn Larabell (UC San-Francisco)</b>	Characterization of Fe/Fe3O4-core/shell nanoparticles and their interface with ZnO nanorods, <b>Dr Roland Kröger (University of York)</b>	S1.2 What microscopy with synchrotron radiation can do for you
11.45am	Two EGFR ectodomain conformations revealed by FLIM-FRET explain the heterogenous affinity of EGF binding, <b>Dr Chris Tynan (Science &amp; Technology Facilities Council)</b>		Aberration corrected TEM in Sheffield with the JEM2200FS-AC: An overview, <b>Dr Guenter Moebus (University of Sheffield)</b>	Organised by Dr Christoph Rau (Diamond Light Source) and Dr Gavin Bell (University of Warwick)
12.00pm	INVITED Optimizing fluorescent proteins for FRET applications by FLIM screening, <b>Prof Dorus Gadella (University of Swammerdam)</b>	Large volume, serial imaging of brain tissue on the nanometer scale with FIB/SEM, <b>Dr Graham Knott (EPFL)</b>	INVITED EELS with aberration corrected STEM, <b>Dr Alexandre Gloter (Université Paris Sud)</b>	INVITED 3-D view into cells by X-ray tomography, <b>Dr Gerd Schneider (Helmholtz-Zentrum Berlin für Materialien)</b>
12.15pm		Image-based meshing from confocal microscopy, <b>Dr Ashwani Harkara (Simpleware Ltd)</b>		
12.30pm	EMS General Assembly		Lunch and Exhibition	
Symposia title	L1.2 In vivo Imaging	N1.2 Image Analysis and Quantitative electron Microscopy	M1.2 Applications of FIB Microscopy	
Organisers	Dr Claire Wells (KCL) and Dr Theresa Ward (LSHTM)	Professor A I Kirkland (Oxford University)	Dr Beverley Inkson (University of Sheffield)	
2.30pm	INVITED Lighting the way to novel therapies for cancer, <b>Dr Jane Plumb (Beatson Institute)</b>	Benefits and application examples of a new windowless EDX system based on integrated multiple silicon drift detectors, <b>Dr Peter Schlossmacher (FEI Company)</b>	INVITED Nano patterning with a helium ion microscope, <b>Dr Paul Alkemade (Delft University of Technology)</b>	Differential Phase Contrast X-ray tomographic imaging for biological applications, <b>Dr Sam McDonald, University of Manchester</b>
2.45pm		Core-shell catalyst nanoparticles: what quantitative analysis of HAADF-STEM can reveal about structure, <b>Ms E Halbo (University of Oxford)</b>		Biological Imaging at Diamond: The Cryo- Transmission X-ray Microscope Beamline, <b>Dr Elizabeth Duke, DLS, UK</b>
3.00pm	In vivo molecular imaging technique reveals parenchymal and interstitial cell cross-talks in chronic inflammatory disease, <b>Dr Satoshi Nishimura (University of Tokyo)</b>	Arrays of coated carbon tubes: silicon drift detector EDS in SEM and STEM and high resolution imaging and EELS at SuperSTEM, <b>Dr Meiken Falke (Bruker Nano GmbH)</b>	The ProberShuttle: A flexible and versatile tool for all nanomanipulation tasks, <b>Dr Andrew Jonathan Smith (Kleindieck Nanotechnik)</b>	Tomography with synchrotron radiation, <b>Mr Jochen Duell, DLS, UK</b>
3.15pm	Imaging enzymes at work. Metabolic mapping by enzyme histochemistry, <b>Prof Cornelis Van Noorden (University of Amsterdam)</b>	Quantifying surface roughness from electron exit waves using the channelling theory, <b>Ms Amy Wang (EMAT)</b>	FIB fabrication of micro and nanomechanical resonators, <b>Dr David Cox (ATI University of Surrey)</b>	Multi-technique Microscopy and Synchrotron Radiation Study of Novel Magnetic Alloy Surfaces, <b>Dr Gavin Bell, University of Warwick</b>
3.30pm	BREAK			
4.00pm	INVITED Live imaging and genetic dissection of macrophage developmental dispersal in drosophila, <b>Dr Brian Stramer (KCL)</b>	INVITED Data mining the object wave, <b>Dr Dirk van Dyck (RUCA)</b>	Beyond FIB resolution by simultaneous electrical measurements, <b>Dr Amalio Fernandez-Pacheco (Imperial College London)</b>	INVITED Imaging of Strain in a single ZnO nanorod using coherent X-ray Diffraction, <b>Prof Ian Robinson, UCL</b>
4.15pm			Pushing the limits of 3D FIB tomography, <b>Dr Damien McGrouther (University of Glasgow)</b>	
4.30pm	INVITED Non-invasive in vivo imaging of tuberculosis - a new approach to drug testing, <b>Dr Andrea Zelmer (LSHTM)</b>	Chemical mapping of block copolymer electrolytes using low-loss EFTEM spectral imaging and principal component analysis, <b>Dr Frances Allen (Lawrence Berkeley National Laboratory)</b>	INVITED 3D Microstructural characterisation of alloy systems using combined EBSD and EDS analysis in a dual beam FIB, <b>Dr Geoff West (Loughborough University)</b>	Elemental mapping of biologically significant metals in invasive ductal carcinoma of the breast, <b>Dr Tina Geraki, DLS, UK</b>
4.45pm	Microscopy of Live Highly Pathogenic Viruses, <b>Dr Paul Monaghan (AAH, Australia)</b>			Synchrotron Radiation IR Microspectroscopy at Diamond Light Source, <b>Dr Gianfelice Cinque, DLS, UK</b>
5.00pm				