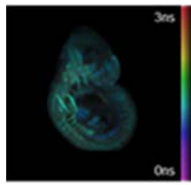
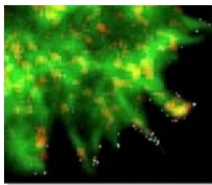


Multidimensional fluorescence imaging and metrology

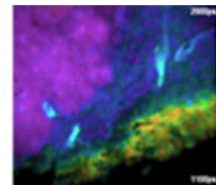
Photonics Group user workshop for cell biology, HCA and clinical diagnosis

Friday September 27, 2013, Lecture Theatre 2, Physics Department, Imperial College London, SW7 2AZ

0930	Coffee	Posters (Blackett, Foyers Level 2 & 3)
1000	Paul French	Welcome and introduction to multidimensional fluorescence imaging and metrology research portfolio
1030	Poster presenters	Poster preview talks
1055	Mark Neil	Super-resolved microscopy and optogenetics
1115	Poster presenters	Poster preview talks
1140	Sean Warren & Yuriy Alexandrov	Data analysis and management: <i>FLIMfit</i> and <i>OMERO</i>
1155	Poster presenters	Poster preview talks
1220	Lunch	Posters (Blackett, Foyers Level 2 & 3)
1345	David Spiller (Manchester)	High Content Time lapse Microscopy for Systems Biology
1415	Robert Mahen (EMBL)	Generation of functional fluorescently tagged transgenes in human cells for systems microscopy
1435	Chris Dunsby	High speed 2D and 3D fluorescence imaging by oblique plane microscopy
1455	James McGinty	FLIM tomography of live disease models: zebrafish and mice
1515	Tea	Posters (Blackett, Foyers Level 2 & 3)
1545	Erik Sahai (LRI-CRUK)	Intravital Imaging of Cancer Signalling and Response to Therapy Using FRET Biosensors
1615	Sergio Coda	Clinical fluorescence lifetime metrology for GI cancer
1630	Rakesh Patalay	Clinical multispectral multiphoton FLIM microscopy of skin disease
1645	Discussion	Future trend and priorities
1700	Maggie Dallman	Closing remarks
	Drinks & canapés	Posters (Blackett, Foyers Level 2 & 3)



Posters



Advances in microscopy

- | | |
|------------------|---|
| Hugo Sinclair | 3-D STED microscopy and its application to imaging luminescent defects in diamond |
| Alex Savell | Application of STED microscopy to image the immunological synapse |
| Lionel Fafchamps | Development of high speed optical sectioning microscopes based on structured illumination |
| Lionel Chaudet | Development of highly parallel optical systems for optogenetics |

FLIM and FRET of cell signalling

- | | |
|-----------------|---|
| George Chennell | Development and application of FRET biosensors to probe metabolic changes in live cells and spheroid cultures |
| Sean Warren | Multiplexed FRET of cell signalling during chemotaxis |
| Dominic Alibhai | Automated FLIM FRET assay of HIV Gag protein oligomerisation |
| Doug Kelly | Automated plate reading FLIM microscope and applications to cell-based FRET assays for protein-protein interactions |
| Doug Kelly | Automated plate reading FLIM microscope: live cell autofluorescence lifetime assays |

Mesoscopic to macroscopic fluorescence tomography

- | | |
|------------------|--|
| Vincent Maioli | Applications of oblique plane microscopy to the study of calcium sparks in isolated cardiac myocytes |
| Yuriy Alexandrov | Automated MDFI analysis for cell-based assays and clinical diagnosis |
| Sunil Kumar | Rapid OPT for longitudinal studies of cancer and inflammation in live adult zebrafish |
| Lingling Chen | Advances in optical projection tomography |
| Natalie Andrews | FLIM and FRET in live zebrafish |

Clinical multidimensional fluorescence imaging and metrology

- | | |
|------------------|--|
| Hugh Sparks | FLIM endoscopy |
| Joao Lagarto | Compact multispectral autofluorescence lifetime fiber-optic probes |
| Ben Dyer | Ex vivo and in vivo application of fluorescence lifetime metrology to heart disease |
| Mohammad Nickdel | Application of autofluorescence lifetime metrology to label-free diagnosis of osteoarthritis |