

2nd Southeast Asian Course on “F-techniques: FCS, FCCS, FLCS, FRET, FLIM and FRAP”

July 16-20, 2012, Biopolis, Singapore



Preliminary Program (as of June 6, 2012)

	Monday, July 16	Tuesday, July 17	Wednesday, July 18	Thursday, July 19	Friday, July 20
9.00 - 9.30	Introduction and Welcome <i>Sohail Ahmed and Steffen Rüttinger</i>	Photon counting FLIM and data analysis <i>Peter Kapusta</i>	Nuclear structure and dynamics as seen with FCS and FRAP <i>Malte Wachsmuth</i>	FLIM - Detection of lipid domains in model and biological membranes <i>Andreas Hermann</i>	Fluorescence localization microscopy – the transition from concept to biological research tool <i>Markus Sauer</i>
9.30 - 10.30	Fluorescence Spectroscopy: From ensembles to single molecules <i>Markus Sauer</i>	Automated quantitative fluorescence microscopy for systems biology <i>Malte Wachsmuth</i>	Misfolding versus aggregation: following the early events of amyloid beta aggregation with an ultra-sensitive fluorescence tool <i>Sudipta Maiti</i>	Imaging Fluorescence Correlation Spectroscopy for the characterization of lipid membrane properties <i>Thorsten Wohland</i>	WAVE-tracer; a tool to investigate single molecule localization and dynamics at nanometric scale <i>J-B Sibarita</i>
10.30 - 11.00	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11.00 - 11.45	Time-resolved microscopy <i>Peter Kapusta</i>	Multimodal-FRAP imaging for analyzing living cell activity <i>J-B Sibarita</i>	Lipid nanodomains investigated by FCS and FRET <i>Radek Machen</i>	Using FRET and FCCS to measure protein-protein interactions in mammalian cells <i>Sohail Ahmed</i>	Lateral organization of viral proteins at the plasma membrane as basis for virus assembly <i>Thomas Korte</i>
11.45 - 12.30	Confocal solutions and applications for F-techniques <i>Steffen Rüttinger</i>	Instrumentation for time-resolved microscopy <i>Steffen Ruettinger</i>	FRET applications of conjugated polymers in biosensing, imaging and phototherapy <i>Qing-Hua Xu</i>	New insights into EGFR viewed through a fluorescent window <i>Andrew Clayton</i>	Molecular mechanisms of Influenza virus cell entry and exit <i>Andreas Hermann</i>
12.30 - 13.30	Lunch	Lunch	Lunch	Lunch	Lunch
13.30 - 14.15	Frequency-domain FLIM <i>Andrew Clayton</i>	Practical session 1	Practical session 2	Practical session 3	Practical session 4
14.15 - 15.00	Time-domain FLIM – from basics to biological applications <i>Thomas Korte</i>				
15.00 - 15.45	tba <i>Sudipta Maiti</i>				
15.45 - 16.30	Break	Break	Break	Break	Break
16.30 - 17.15	Basics of FCS and FCCS <i>Thorsten Wohland</i>	Practical session 1	Practical session 2	Practical session 3	Practical session 4
17.15 - 18.00	FCS variants – FCCS, FLCS and RICS <i>Radek Machen</i>				
18.00	Poster session and welcome reception			Workshop dinner	End of course

Practical Sessions

There will be four groups taken through rotation of the four practical sessions, one per afternoon.

1. Frequency-domain FLIM (LIFA, Lambert Instrument)
2. FCS, FCCS and FLCS (Olympus FV1000 SIM Scanner with PicoQuant LSM Upgrade)
3. 3D-FRAP (Roper Instruments)
4. Time-domain FLIM (PicoQuant MicroTime 200)