

Live Cell Imaging - 2008 PROGRAM

DAY 1

Monday, 1 December

9:00	9:30	MMI Admin	Registration / Coffee - Room ST1	
9:30	10:00	Harper	Introduction: course concept, history, interaction of light & matter.	1
10:00	10:30	Firth	Light Microscopy I: Brightfield contrast modes	2
10:30	10:50		<i>morning tea - Bldg 25</i>	
10:50	11:15	Harper	Light microscopy II: Fluorescence microscopy	3
11:15	12:00	Cody	Confocal Microscopy I: basic elements and imaging	4
12:00	1:00	Axelrod	Dynamics of secretion studied by TIRF	5
1:00	1:45		<i>Lunch - Bldg 25</i>	
1:45	4:45		LABS: Introduction to Instruments: basic imaging components and operation (Brightfield, Fluorescence & Confocal) <i>[groups rotate through Point scanning, Disk scanning and Widefield Fluorescence systems]</i>	
3:30	4:00		<i>afternoon tea - MMI foyer</i> <i>[groups rotate through Point scanning, Disk scanning and Widefield Fluorescence systems]</i>	
5:00	6:00		<i>Evening Seminar and Cocktails (S2 Lecture Theatre & foyer)</i>	
		Prof Axelrod	Open Lecture: Photons have a bright future Followed by Nikon sponsored drinks & light snacks	6

DAY 2

Tuesday, 2 December

9:00	9:00	Cody	Imaging Hardware I: lenses, filters, light sources, and PMTs	7
9:30	10:00	Ellis	Imaging hardware II: Cameras (mono, RGB, EMCCD) and their use.	8
10:00	10:30	Harper	Fluorophores and labelling	9
10:30	11:00		<i>morning tea & discussion - Bldg 25</i>	
11:00	11:45	Cody	Confocal Microscopy II (different confocal systems, how to optimise)	10
11:45	12:15	Firth	Image Analysis I : The Digital Image	11
12:15	1:00	Ellis	Image Analysis II: Fluorescence analysis (using Metamorph)	12
12:30	1:30		<i>Lunch - Bldg 25</i>	
1:30			LABS: working with live cells I	
3:30	4:00		<i>afternoon tea - MMI foyer</i>	
	5:00			
5:00	6:00	Schek	Confocal Matrix Scanning (Intelligent Confocal Screening) Followed by Leica sponsored drinks & light snacks (G19/Bldg75)	13

DAY 3

Wednesday, 3 December

9:00	9:30	Firth	High Speed imaging	14
9:30	10:30	Cody	Live Cell Imaging I: Keeping Cells Alive !	15
10:30	11:00		<i>morning tea & discussion - Bldg 25</i>	
11:00	11:30	Harper	Adv. Fluorescence Techniques I: FRAP, FLIP etc	16
11:30	12:00	Ellis	Adv. Fluorescence Techniques II: FRET	17
12:00	12:30	Cody	Calcium Imaging and other	18
12:30	1:30		<i>Lunch - Bldg 25</i>	
1:30			LABS: working with live cells II	
3:30	4:00		<i>afternoon tea - MMI foyer</i>	
	5:00		LABS: working with live cells II	
5:00	6:00	Noble	Live Cell Image Analysis Tutorial Followed by Olympus-SIS sponsored drinks & light snacks (G19/Bldg75)	

DAY 4 More time for Live Cells

9:00	11:00		LABS III: do own study or repeat experiments: rotation 1	
10:15	11:00		<i>morning tea & fill out evaluation forms</i>	
11:00	1:00		LABS III: do own study or repeat experiments: rotation 2	
1:00	1:30		<i>Lunch - MMI foyer</i>	
1:30	3:30		LABS III: do own study or repeat experiments: rotation 3	
3:30	5:00		Group presentations: S2	