

BioPhotonics Ph.D. course 2018

Monday January 22– Friday January 26 5 ECTS Points
DaMBIC & MEMPHYS, University of Southern Denmark, Odense Campus, Denmark

Organized by: DaMBIC, Danish Molecular Biomedical Imaging Center & Nikon
Jonathan R. Brewer & Vita Solovyeva
Venue: MEMPHYS common room and labs

Information: vita@bmb.sdu.dk

Monday January 22, 2018

08:00	-	09:30	General introduction to microscopy and Fluorescence	Jonathan	Lecture
09:30	-	10:30	Confocal laser scanning microscopy	Jonathan	Lecture
10:30	-	11:00	Coffee break+Announcement of projects		
11:00	-	11:30	Two photon confocal microscopy	Jonathan	Lecture
11:30	-	12:30	Lunch Break		
12:30	-	13:30	Image Analysis	Daniel	Lecture
13:30	-	18:00	Microscopy Practicals		Labs

Tuesday January 23, 2018

08:00	-	09:00	Super Resolution and FLIM microscopy	Jonathan	Lecture
09:00	-	10:00	FRAP/FLIP	Daniel	Lecture
10:00	-	10:30	Coffee break		
10:30	-	11:30	Correlation methods FCS and RICS	Jonathan	Lecture
11:30	-	12:00	Imaging in vascular pharmacology and physiology	Maria	Lecture
12:00	-	13:00	Lunch Break+Choosing individual projects		
13:00	-	13:10	Teams for projects+materials hand-out		
13:10	-	17:30	Microscopy Practicals		Labs

Wednesday January 24, 2018

08:00	-	09:00	CARS	Jonathan	Lecture
09:00	-	10:00	Live cell imaging	Eva	Lecture
10:00	-	10:30	Coffee break		
11:00	-	12:00	kICS/PALM	Eva	Lecture
12:00	-	12:40	Lunch Break		
12:40	-	13:00	Commercial presentation		
13:00	-	17:30	Microscopy Practicals		Labs
18:00	-	21:00	Dinner in town		

Thursday January 25, 2018

08:30	-	12:00	Project		Labs
12:00	-	13:00	Lunch Break		
13:00	-	18:00	Project		Labs

Friday January 26, 2018

08:30	-	10:00	Presentation preparation		Practical
10:00	-	10:30	Coffee break		
10:30	-	12:00	Presentation preparation		Practical
12:00	-	13:00	Lunch Break		
13:00	-	16:00	Presentations and wrap up		Lecture

FLIM	Fluorescence-lifetime imaging microscopy
kICS	k-Space Image Correlation Spectroscopy
PALM	photoactivated localization microscopy
STED	Stimulated emission depletion microscopy
CARS	Coherent Anti-Stokes Raman Scattering
FRAP	Fluorescence recovery after photobleaching
FLIP	Fluorescence Loss in Photobleaching
FCS	Fluorescence Correlation Spectroscopy
RICS	Raster Imaging Correlation Spectroscopy

