

Workshop in Fluorescence Labeling in 3-D Live Cell Imaging

Day 1: (13-4-2010)

Fluorescence

- Electronics states and transition.
- Absorption and emission efficiency parameters (E_{max} , and QY), lifetime, photo-bleaching
- Spectral characteristics.
- Influence of environment on fluorescence signals, self-quenching and FRET.
- Fluorescence detection and measurement.

Day 2: (14-4-2010)

1. DYES:

- Classic dyes: Fluoresceins, rhodamines, coumarins.
- Alexa Flour dyes
- Cyanine (cy) dyes
- BODIPY dyes
- GFP
- Quantum dot nanocrystals

2. PROBES:

- Organelle/cytoskeleton markers
- Lipid probes
- Enzyme substrates
- ROS (reactive oxygen species)
- Membrane potential

3. Photobleaching and phototoxicity

Day 3: (15-4-2010)

- Fluorescence Indicators and Intracellular Ions.

Program:

Times	Day 1	Day 2	Day 3
8.30am	Registration	Registration	Registration
9.00 am	Lecture 1	Lecture 3	Lecture 5
10.30 am	BREAK	BREAK	BREAK
11.00 am	Lecture 2	Lecture 4	Practical 5
12.30 pm	LUNCH and PRAY	LUNCH and PRAY	LUNCH and PRAY
1.30pm	Practical 1	Practical 3	Close Ceremony
2.30 pm	BREAK	BREAK	
3.00 pm	Practical 2	Practical 4	
5.00 pm	End of the day	End of the day	

Curriculum Vitae

Name: Ghadir A. Jamal

Academic Rank: Assistant Professors

Date of appointment in University : 26-9-2008

Current Address

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Faculty: Allied Health Sciences

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Academic and Professional Qualifications:

Vocational Experience

- August 2004: HSC, Kuwait University
PhD scholarship from the Faculty of Allied Health.
- March 2001: Kuwait Cancer Centre (KCC)
Lab Technician in the Tissue Culture Department.
- January 2000: Amiri Hospital
Lab Technician in the Department of Biochemistry.

Education and Qualification

- PhD Clinical Chemistry
University of Nottingham; 2008
- MSc Clinical Pharmacology
University of Aberdeen; 2003
- BSc Biochemistry
University of Kuwait; 1999
- Member in the Biochemical Society
Since 2008

Relevant Publications

Duggan J., Jamal G. et al Functional imaging of microdomains in cell membranes. Eur Biophys J (2008) 37:1279–1289.