

Principles of Fluorescence Techniques 2009 Madrid Course: short report

September 13–17th 2009 in sunny Madrid, Spain.

‘Principles of Fluorescence Techniques 2009 Madrid Course’ took place in beautiful locale of Madrid, Spain being very bright and sunny during September 13–17th 2009. The Fluorescence Foundation organized the course at state-of-the-art optical microscopy laboratory of the Microscopy and Dynamic Imaging Unit of the [CNIC](#), Madrid. The course outline ranged from the basic concepts of steady state fluorescence, time-resolved fluorescence spectroscopy and imaging and fluorescence confocal microscopy etc to recent advancements in its application.

The course was lectured by the experts of the fluorescence area headed by Prof. Enrico Gratton, University of California, Irvine. The conference kicked off with a nice lecture ‘Basic Fluorescence Principles’ by Prof. David M. Jameson, University of Hawaii at Manoa, emphasizing basic concepts of fluorescence explaining polarization and anisotropy phenomenon. One of the exhaustive talks were given by Prof Enrico Gratton highlighting different applications of fluorescence techniques like FLIM, FCS, RICS, FCM and their principles of working. This talk comprised of the rapid advances that have been made in instrumentation and software implied in many fluorescence techniques resulting in increased sensitivity and resolution of method and instrument. Phasor approach in FLIM was completely new to me and a bit on difficult side to understand initially. Lectures were followed by hands on experiments with full technical and scientific assistance to all its participants. Demonstrations were performed using highly sensitive instruments like confocal microscopy, TIRFM, FLIM and steady state spectrometer in solutions as well as live cells. The course was an excellent learning experience for me.

The course was attended by about 50 researchers from many countries. The Fluorescence Foundation organizes this course three times a year at three different venues respectively in Chicago (Illinois), Genova (Italy) and Madrid (Spain). The next course will be organized in Chicago, Illinois in early 2010. I would recommend this course to researchers who want to have a basic knowledge of fluorescence techniques as well as for researchers and industrial scientists who wants to gain advanced knowledge of application of fluorescence techniques.

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