

Privat Docent course on imaging

Contributed by Arnaud PARADIS
Wednesday, 04 December 2013

2013-2014 CIF COURSES

" Introduction to fluorescence imaging for the analysis of living cells "

Cours de privat docent et Cellular Imaging Facility (CIF)

Donné par Dr Jean-Yves CHATTON

Place : Petit Auditoire de l'Ecole de Médecine, rue du Bugnon 9 (1er étage)

Schedule : Winter Semester – Tuesdays 12h15 - 14h00

07 January 2014: Basics of transmitted light and fluorescence microscopy.

14 January 2014: Confocal microscopy.

21 January 2014: Modes of image formation, acquisition, signal sampling.

28 January 2014: Dynamic recording of cellular functions by fluorescence imaging.

Intracellular calcium, pH, and sodium and their application to cellular signaling.

Problems related to imaging of living cells.

4 February 2013: Other optical applications (proposed topics):

Fluorescence recovery after photobleaching (FRAP), flash photolysis, multiphoton microscopy, evanescent wave microscopy, laser tweezers, fluorescence resonance energy transfer (FRET), digital holography microscopy, optical contrasting methods (phase contrast, DIC).

NB:

§ Lectures will be given in English

§ In parallel with theoretical lectures, demonstrations will be proposed on the confocal microscopes of the Cellular Imaging Facility (details and registration on site).

§ gives right to ONE credit for students of doctoral schools (FBM and neuroscience)

==> Admission to the course is free and open to anyone interested

(please register to jean-yves.chatton@unil.ch -- on site registration possible)