

Introduction to fluorescence imaging for the analysis of living cells

Cours de privat docent & Cellular Imaging Facility (CIF)

Dr Jean-Yves CHATTON

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

Schedule: Winter Semester – 12:15 – 14:00

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- Tuesday 7 January 2020** : Basics of transmitted light and fluorescence microscopy
- Tuesday 14 January 2020** : Confocal microscopy
- Tuesday 21 January 2020** : Modes of image formation, acquisition, signal sampling
- Tuesday 28 January 2020** : Dynamic recording of cellular functions by fluorescence imaging.
Intracellular ion imaging and cellular signaling.
Problems related to imaging of living cells
- Tuesday 4 February 2020** : Other optical applications (proposed topics):
Fluorescence recovery after photobleaching (FRAP), photoactivation - optogenetics, multiphoton microscopy, fluorescence resonance energy transfer (FRET), optical contrasting methods (phase contrast, DIC), super-resolution microscopy

- Remarks:
- 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)