## Graduate Schools Infection Immunity and Cancer, UniGe & UniL: CUSO Biology & Medicine, CMU

Seminars in Microbiology

Monday, 24<sup>th</sup> November, 2014 Salle de séminaire 7172, CMU **11:30 – 12:30** 

## Pr. Daniel Huber



Neural circuits and behaviour Lab Département des Neurosciences Fondamentales, CMU

## Optical dissection of cortical circuits underlying goal directed action

Daniel Huber will give an overview of how the latest optical tools, such as two-photon imaging, are used with genetically encoded calcium indicators and optogenetics in behaving mice. The combination of these techniques allows probing of the cortical circuits involved in controlling goal directed action and forming novel sensory-motor associations.

Selected recent publications:

- O'Connor DH, Hires SA, Guo ZV, Li N, Yu J, Sun Q-Q, Huber D, Svoboda K. <u>Neural coding</u> during active somatosensation revealed using illusory touch. Nature Neuroscience 2013;16(7):958-965.
- Huber D, Gutnisky DA, Peron S, O'Connor DH, Wiegert JS, Tian L, Oertner TG, Looger LL, et al. <u>Multiple dynamic representations in the motor cortex during sensorimotor learning</u>. Nature 2012;484(7395):473-478.

Sandwiches will be offered after the seminar Contact: Stéphanie Anchisi & Christina Mueller



**Speaker chosen by the MIMOL PhD students**