



Final program

Monday 20th

Registration 8:00 - 9:00

Welcome 9:00 - 9:30

Session 1 *(Chair Antoine Triller)*

9:30 - 10:10	Michael Ehlers	<i>Organelles and Trafficking Machinery for Postsynaptic Plasticity</i>
10:10 - 10:50	Taekjip Ha	<i>Illuminating the individual steps of SNARE-induced membrane fusion at the single vesicle level</i>
10:50 - 11:20	pause	
11:20 - 12:00	David Digregorio	<i>Subcellular optical detection of membrane voltage</i>
12:00 - 12:40	Marc Schnitzer	<i>Of mice, men, and microscopes: Watching cellular level dynamics in behaving subjects</i>
12:40 - 14:40	lunch - poster from A to L	

Session 2 *(Chair Dmitri Rusakov)*

14:40 - 15:20	Daniel Côté	<i>Applications of coherent Raman imaging in neuroscience</i>
15:20 - 16:00	Serge Charpak	<i>Two-photon imaging neurovascular activity and metabolism in the rat olfactory bulb</i>
16:00 - 16:40	Emmanuel Beaurepaire	<i>Third-harmonic generation microscopy: principles and applications</i>
16:40 - 17:10	pause	
17:10 - 17:50	Francesco Pavone	<i>Non Linear Optical Imaging and Manipulation of Neural Networks</i>
17:50 - 18:30	Paul De Koninck	<i>Probing the whereabouts and affairs of CaM kinase II in neurons: mechanisms and functions</i>
18:30 - 19:10	Valentin Nägerl	<i>Live-cell imaging of synapses at nanoscopic resolution by STED microscopy</i>

Wine and cheese party

Tuesday 21st

Session 3 *(Chair Paul De Koninck)*

9:00 - 9:40	David Kleinfeld	<i>Topology and Control in Cortical Blood Flow Revealed with Linear and Nonlinear Optical Methods</i>
9:40 - 10:20	Dmitri Rusakov	<i>Nano-diffusion in the brain extracellular space examined with time-resolved fluorescence anisotropy imaging (TR-FAIM)</i>

10:20 - 11:00	Arthur Konnerth	<i>In vivo two-photon imaging of mouse visual cortex signaling at eye-opening</i>
11:00 - 11:30	pause	
11:30 - 12:10	Richard Tsien	<i>Tracking the dynamics of single vesicles with Qdots and other optical probes</i>
12:10 - 12:50	Maxime Dahan	<i>Investigating cell dynamics at the single molecule level using quantum dots</i>
12:50 - 14:20	lunch	

Session 4 (Chair Ehud Isacoff)

14:20 - 15:00	Gaudanz Danuser	<i>High-content image analysis in early steps of endocytosis</i>
15:00 - 15:40	Petra Schwille	<i>Fluorescence Correlation Spectroscopy in live cells and reconstituted systems</i>

Talks selected from abstracts

15:40 - 16:00	Philipp Schoenenberger	<i>Optimizing the spatial resolution of Channelrhodopsin-2 activation</i>
16:00 - 16:20	Pierre Marquet	<i>Living cell analysis with Digital Holographic microscopy</i>
16:20 - 16:50	pause	
16:50 - 17:30	Paul Wiseman	<i>Advances in image correlation methods for measurements in live cells and neurons</i>
17:30 - 18:10	Ryuichi Shigemoto	<i>Correlative study of central synapses by fluorescence and electron microscopy</i>

winecellar visit

bus at 18h30

Gala dinner at chateau Bouscaut

Bus return around 23h30

Wednesday 22nd

Session 5 (Chair Richard Tsien)

9:00 - 9:40	Ehud Isacoff	<i>Light-gated ion channels</i>
9:40 - 10:20	Jerome Mertz	<i>New approaches towards fluorescence background rejection</i>
10:20 - 11:00	Karl Deisselroth	<i>Optogenetics: Development and Application</i>
11:00 - 11:30	pause	
11:30 - 12:10	Akihiro Kusumi	<i>Signal transduction based on the plasma membrane meso-domains and the actin membrane skeleton: a single-molecule tracking study</i>
12:10 - 12:50	Maria Garcia-Parajo	<i>Optical nanotools to investigate the spatio-temporal organization of the cell membrane at the nm scale</i>
12:50 - 14:50	lunch - poster from M to Z	

Session 6 (Chair Michael Ehlers)

14:50 - 15:30	Gregory Giannone	<i>Trans-synaptic activation of Neuroligin1 by β-Neurexin binding induces fast stabilization of PSD95</i>
15:30 - 16:10	Christophe Schmidt	<i>Traffic on microtubules, closely followed by AFM and single-molecule fluorescence</i>

Talks selected from abstracts

16:10 - 16:30	Cedric Bouzigues	<i>Detection of Reactive Oxygen Species in living cells by nanoparticle imaging: application to PDGF signaling</i>
16:30 - 16:50	Ralf Schmauder	<i>Simultaneous recording of ligand-binding and channel-gating on individual nicotinic-acetylcholine receptors in living cells</i>
16:50 - 17:20	pause	

Session-4

17:20 - 18:00	Laurent Groc	<i>Shedding light on the physiological role of glutamate receptor surface trafficking</i>
18:00 - 18:40	Hervé Rigneault	<i>Coherent Anti-Stokes Raman Microscopy for bio-imaging: new developments</i>
18:40 - 19:20	Stephan Sigrist	<i>STED microscopy in the analysis of synapse assembly</i>

Free evening

Thursday 23rd

Session 7 (Chair Hervé Rigneault)

9:00 - 9:40	Bernardo Sabatini	<i>Tracking activity-dependent protein trafficking during plasticity induction</i>
9:40 - 10:20	Olivier Rossier (Sheetz lab)	<i>Force Generated by Actomyosin Contraction Builds Bridges Between Adhesive Contacts</i>
10:20 - 11:00	Olivier Thoumine	<i>Optical manipulation and activation of bio-mimetic neuronal contacts triggered by specific cell adhesion molecules</i>
11:00 - 11:30	pause	
11:30 - 12:10	Laurent Cognet	<i>From single molecule detection to gold nanoparticle photothermal tracking in live neurons</i>
12:10 - 12:50	Chris Yip	<i>Correlated Approaches to Determining Single Molecule Structure and Dynamics in Membranes</i>
12:50 - 13:30	Antoine Triller	<i>Synaptic plasticity seen at a single molecule level</i>
13:30 - 14:30	lunch and departure	