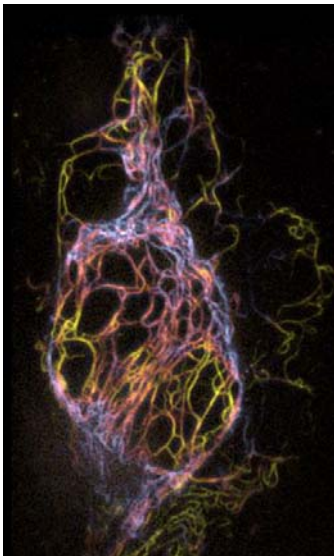


EPFL STI IMT LOB
Prof. T. Lasser
BM 5.143 (Bâtiment BM)
Station 17
CH-1015 Lausanne

Téléphone direct
Secrétariat F. Ubezio
Fax :
E-mail :
Site web :

+4121 693 51 18
+4121 693 57 26
+4121 693 78 20
theo.lasser@epfl.ch
<http://lob.epfl.ch>



Seeing is believing

Voir est saVoir

This talk invites for a promenade looking into tissue structure and function and to see cell and subcellular organelles with a resolution well below 100 nm (see image aside). Based on coherent imaging techniques we will try to see “diabetes”, to look into the brain for Alzheimer disease and we will finish our walk with novel insight on the cellular level based on SOFI which provide 3D even 4D superresolved images of living cells.

We will try to present the underlying optical concepts, and conclude with an outlook for imaging with applications in medicine and lifesciences.

Prof. Theo Lasser is full professor at the Ecole Polytechnique Fédérale de Lausanne and is heading the Laboratoire d'Optique Biomédicale (LOB).

His research focuses on functional imaging, the development of coherent imaging methods and its application in medicine and life sciences. Low coherence microscopy (OCM) and high speed Laser Doppler Imaging (LDI) with applications in diabetes, neuroscience and infectious diseases represent well current research interests. Fluorescence microscopy and spectroscopy and in particular superresolution imaging (SOFI) applied to cell imaging complement this research.