

**Les Séminaires de la Fondation
“Nanosciences aux limites de la Nanoélectronique”**

**Jeudi 18 Juin 2009
à 16 h**

Dr Stefan Jakobs

Max Planck Institute for Biophysical Chemistry



présentera un séminaire intitulé :

**STED Microscopy:
Focusing on Mitochondria**

Vous êtes tous cordialement invités au pot qui suivra la présentation.

Amphithéâtre 15 de l'école PHELMA
(anciennement ENSERG)
23 rue des Martyrs – 38000 Grenoble



STED Microscopy : Focusing on Mitochondria.

In the recent past, physical concepts emerged for overcoming the diffraction resolution barrier in lens-based fluorescence microscopy. This seminar will give a short overview on these approaches and concentrate on STED-microscopy and related techniques.

Mitochondria are the powerhouses of all eukaryotic cells. Conventional optical microscopy has failed to visualize inner mitochondrial structures because discerning details smaller than half the wavelength of light has been precluded by diffraction. This is unfortunate because light microscopy would offer a number of striking potential applications.

The latest advances in the imaging of sub-mitochondrial protein distributions using STED microscopy will be reported in this lecture.

Biographie

Stefan Jakobs is a Research group leader at the MPI for Biophysical Chemistry (Goettingen, Germany).

He belongs to the Mitochondrial Structure and Dynamics group where two major research interests are focused on:

- the investigation of the molecular basis of the complex inner architecture of mitochondria using advanced microscopy
- the analysis and development of photochromic fluorescent proteins

Stefan studied Biology at the University of Kaiserslautern, in Germany. He graduated in 1999 following his studies at the MPI for Plant Breeding Research (Cologne, in Germany) and at the John-Innes-Centre (Norwich, Great Britain). For his Post-Doc, he integrated the Laboratory of S.W. Hell , MPI for Biophysical Chemistry (Goettingen, Germany) where he became research group leader in 2005.

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