International Lecture Series
Disease Biology and Molecular Medicine

ALL WELCOME!

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7 p.m.

Historischer Saal im
Stadtmuseum Halle

Christian-Wolff-Haus
Große Märkerstr. 10
(ca. 100 m vom
Marktplatz)

"High resolution (STED) microscopy of living cells"

Christian Eggeling studied Physics, initially in Hamburg and then in Göttingen, where he also conducted his diploma and PhD research focused on fluorescence microscopy. After an interim period from 2000 to 2003, working for the company Evotec OAI in Hamburg, he joined the group of Stefan Hell at the Max-Planck-Institute for Biophysical Chemistry in Göttingen as a scientist, contributing to their seminal work until 2012, when he became a group leader and head of the Wolfson Imaging Centre at the Weatherall Institute of Molecular Medicine in Oxford.
His research focuses on the application and development of ultrasensitive, live-cell fluorescence microscopy techniques with a spatial resolution down to the molecular level (super-resolution microscopy or nanoscopy), superior to conventional optical microscopes. These super-resolution microscopes are used to unravel nanoscopic changes at the molecular level in living cells, for example following cellular immune responses. They can also visualize previously undetectable molecular interactions (such as protein-protein and protein-lipid interactions), which will shed new light on different molecular pathways triggered at the cell surface and intracellularly, e.g. during antigen presentation by dendritic cells and T cell activation.

Selected papers

Nat Commun. 2014 Nov 20;5:5412. doi: 10.1038/ncomms6412. **Nat Methods. 2013** Aug;10(8):737-40. doi: 10.1038/nmeth.2556. **Nat Struct Mol Biol. 2013** Jun;20(6):679-86. doi: 10.1038/nsmb.2570. **Proc Natl Acad Sci U S A. 2010** Apr 13;107(15):6829-34. doi: 10.1073/pnas.0912894107. **Nature. 2009** Feb 26;457(7233):1159-62. doi: 10.1038/nature07596.

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