

Dr. Rainer Pepperkok



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07/09/1961, Hockenheim

Teamleader

SCIENTIFIC VITA

- 1987 Diplom in applied physics at the **University of Heidelberg**
- 1992 PhD in Cell Biology at the **University of Kaiserslautern**.
- 1993-1995 Recipient of an **EMBO** longterm postdoctoral research fellowship
in the group of Prof. Dr. T. Kreis (University of Geneva, Switzerland). Project:
In vivo analyses of the secretory pathway.
- 1996-1998 Head of light microscopy at the **Imperial Cancer Research
Fund, London**
- 1998 Teamleader at **EMBL Heidelberg**, Cell Biology Cell Biophysics Unit, Head of
the Advanced Light Microscopy Facility

FIELDS OF INTEREST

Light microscopy techniques, instrument development, genomewide high throughput analyses, membrane traffic, mathematical modeling, bioinformatics.

CURRENTLY FUNDED PROJECTS (past 5 years)

„MitoCheck“ within the EU FP6 program, „SMP Cell“ (funded by the national network for genomic research (NGFN2)), „SMP RNAi“ (funded by the national network for genomic research (NGFN2)), RNAi Programme Baden-Württemberg (funded by the State Foundation of Baden-Württemberg).

PUBLICATIONS (10 selected publications since 2000):

Forster, R., M. Weiss, T. Zimmermann, E.G. Reynaud, F. Verissimo, D.J. Stephens, **and R. Pepperkok**. 2006. Secretory Cargo Regulates the Turnover of COPII Subunits at Single ER Exit Sites. *Curr. Biol.* **16**: 173-179.

Simpson, J.C., T. Nilsson, and **R. Pepperkok**. 2006. Biogenesis of Tubular ER-to-Golgi Transport Intermediates. *Mol. Biol. Cell* **17**: 723-37.

Watson P., Forster R., Palmer K.J., ***Pepperkok R.**, *Stephens D.J. 2005. Coupling of ER exit to microtubules through direct interaction of COPII with dynactin. *Nat. Cell Biol.* **7**: 48-55.

Neubrand, V. E., Will, R.D., Möbius, W., Poustka, A., Wiemann, S., Schu, P., Dotti, C.D., **Pepperkok, R.**, Simpson, J.C. 2005. □-BAR, a novel AP-1 interacting protein involved in post-Golgi trafficking. *EMBO J.* **24**: 1122-1133.

Starkuviene, V., Liebel, U., Simpson, J.C., Erfle, H., Poustka, A., Wiemann, S., and **R. Pepperkok**. 2004. High Content Screening Microscopy Identifies Novel Proteins with a Putative Role in Secretory Membrane Traffic. *Genome Res.* **14**: 1948-1956.

Erfle, H., Simpson, J.C., Bastiaens, P.I.H. and **Pepperkok, R.** 2004. siRNA cell arrays for high content screening microscopy. *Biotechniques* **37**: 454-458, 460, 462.

Liebel U, Kindler B, Pepperkok R. 2004 "Harvester" a fast meta search engine of human protein resources. *Bioinformatics* **12**: 1962-1963.

Stephens, D.J., and **R. Pepperkok**. 2002. Imaging of procollagen transport reveals COPI-dependent cargo sorting during ER-to-Golgi transport in mammalian cells. *J. Cell. Sci.* **115**: 1149-60.

Zimmermann, T., J. Rietdorf, A. Girod, V. Georget, and **R. Pepperkok**. 2002. Spectral imaging and linear un-mixing enables improved FRET efficiency with a novel GFP2-YFP FRET pair. *FEBS Lett.* **531**: 245-9.

Simpson, J.C., Wellenreuther, R., Poustka, A., **Pepperkok, R.**, and Wiemann, S. (2000). Systematic sub-cellular localization of novel proteins identified by large-scale cDNA sequencing. *EMBO Rep.* **1**: 287-292.