



ZMBH

Zentrum für Molekulare Biologie der Universität Heidelberg



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Prof. Michael Knop

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Prof. Dr. Michael Knop
Group leader in the DKFZ-ZMBH Alliance
ZMBH
Im Neuenheimer Feld 282
69120 Heidelberg, Germany

**Center for Molecular Biology of the University of Heidelberg (ZMBH) & the German Cancer Research Center (DKFZ)
Heidelberg, Germany**

PostDoc or Research Scientist in optics and engineering and light microscopy development

Description

A research scientist position, specializing in light microscopy has become available in our group. The jobholder will work to operate state of the art fluorescence microscopes for various applications, such as single molecule time-resolved lifetime and diffusion imaging to high content and throughput functional imaging. Moreover, a strong focus will be on own projects that relate to the design and development of new microscopes incorporating novel concepts for the functional imaging of biological specimen, in particular single cells, in basic and applied research.

Opening of position: June 2017

Closing date for applications: until position is filled

General Competences

- Bachelor degree in a technical field (Applied physics, Optical, Electrical or Biomedical engineering)
- Master degree or equivalent (Diploma) in science (Physics, Biophysics, Chemistry,....)
- Proficient in English (both speaking and writing)
- Excellent communication skills and leadership qualities (supervision of students on different levels and technical staff)
- Well organized and able to work independently in an interdisciplinary environment

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Specific competences

Several years of experience in the field of light microscopy development (i.e. a PhD thesis or more than 3-4 years of relevant work experience) and proven record (publications or patents) in construction and design of optical, electronic, mechanical and software components and systems related to advanced light microscopy of biological specimen (e.g. light sheet microscopy, confocal scanning and super resolution fluorescence microscopy or related techniques). Profound knowledge in various software and programming languages (LabView, Arduino, SolidWorks, Matlab, Ray tracing software,)

Contact

Prof. Michael Knop (m.knop@zmbh.uni-heidelberg.de or +49-6221-544213)

Address of Workplace

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Some relevant publications from the lab

Capoulade J, Wachsmuth M, Hufnagel L & Knop M (2011) Quantitative fluorescence imaging of protein diffusion and interaction in living cells. *Nat. Biotechnol.* **29**: 835–839

Khmelinskii A, Keller PJ, Bartosik A, Meurer M, Barry JD, Mardin BR, Kaufmann A, Trautmann S, Wachsmuth M, Pereira G, Huber W, Schiebel E & Knop M (2012) Tandem fluorescent protein timers for in vivo analysis of protein dynamics. *Nat. Biotechnol.* **30**: 708–714

Theer P, Dragneva D & Knop M (2016) π SPIM: high NA high resolution isotropic light-sheet imaging in cell culture dishes. *Scientific Reports* **6**: 32880

Theer P, Mongis C & Knop M (2014) PSFj: know your fluorescence microscope. *Nat Methods* **11**: 981–982