

Post-Doctoral Research Fellow (#CCPD02)

The **Institute of Molecular Biology gGmbH (IMB)** is a Centre of Excellence for Life Sciences funded by the Boehringer Ingelheim Foundation and located within the campus of the University of Mainz in Germany. IMB focuses on epigenetics, DNA repair and developmental biology and offers premium scientific core facilities. The group for **Superresolution Light Microscopy** focuses on the application of advanced light microscopy in order to study cell nuclear architecture with links to the fields of epigenetics, developmental biology and DNA repair. Professor Christoph Cremer, a long-standing expert in the field of advanced light microscopy and its application in nuclear genome structure research heads the group.

The successful candidate for this Postdoc position will be responsible for applying existing custom-made superresolution light microscopes. In particular, and in collaboration with Professor Cremer, the candidate will focus on approaches of single molecule localization microscopy (SMLM), structured illumination microscopy (SIM) as well as further development of the microscope portfolio. The following advanced superresolution microscope systems are available:

- SMLM microscope with four excitation wavelengths
- Multi-color SIM with additional SMLM option microscope (Spectral Precision Distance Microscopy/SPDM)
- Long working distance SIM
- 3D single molecule localization microscope

The group fosters a strong working relationship with IMB's Microscopy Core Facility, which houses additional commercial superresolution systems (STED, GSDIM microscopes).

You will:

- Further develop advanced light microscopy methods, e.g.
 - combine superresolution with light-sheet illumination
 - integrate multiple superresolution microscopy methods in one setup
 - integrate algorithms in our image processing toolbox (Matlab)
- Use nanoscopy approaches to solve scientific questions addressed by collaboration partners
- Apply for grants and publish papers
- Be involved in guiding PhD and Masters students
- Develop your own research profile

Required qualifications:

- PhD in Physics or field relevant to applied optics/light microscopy and its life science applications
- Experience using advanced light microscopy
- Good interpersonal, written and verbal communication skills
- Commitment and dedication to your work
- Experience using light-sheet illumination

Your profile:

- Interest in the setup, development and biomedical application of nanoscopy
- Experience in biomedical collaborations
- Interest in a science carrier perspective

IMB offers:

- Cutting-edge research projects in an international environment
- Competitive salary and favourable pension scheme

IMB is an equal opportunity employer.

Applications should be in English and sent as a **single PDF file** including a cover letter, CV, certificates and contact information of at least 2-3 professional references quoting **Ref. No. CCPD02** to **personal@imb-mainz.de**.

Deadline for applications: 31st October 2017

Starting date: First quarter of 2018 with an initial contract for 2 years, with an option for extension.