PhD position in single molecule imaging

A PhD position (65%) is available in an interdisciplinary project by the groups of Prof. Dr. Bernd Knöll (Institute of Physiological Chemistry) and Prof. Dr. Jens Michaelis (Institute of Biophysics). The project is funded for three years by the Deutsche Forschungsgemeinschaft (DFG).

Topic:
Currently, experiments at the single molecule level are just starting take off in cell biology. We use state-of-the art imaging techniques such as dSTORM and light sheet microscopy to analyse gene expression dynamics at the level of single molecules in the nucleus of living neurons. We measure changes in DNA residence time and DNA bound fractions of the transcription factor SRF in healthy neurons as well as in neurons starting a regeneration program after injury. In this highly innovative and interdisciplinary project the student will connect the fields of cell and molecular biology with biophysics and state-of-the art imaging techniques.

Students with a strong interest in new research methods and highly motivated in learning across research fields should contact:

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