

PhD position

Single molecule FRET studies of a transporter homologue

The research activities of our group aim to establish a fundamental, physics-based understanding of the function of bio-macromolecular systems. In this respect proteins and (protein based) macromolecular complexes, also within in their cellular context, are of particular interest for our research topics. The experimental techniques used are confocal fluorescence spectroscopy and single molecule wide-field microscopy. Thereby fluorescence correlation spectroscopy (FCS), multi-color detection, and Förster resonance energy transfer (FRET) are employed in our research projects.

Candidates (physicist, chemist, biophysicists) should have good experimental skills in working with optical research instruments, as well as in performing experiments and data analysis. Background in optics and laser spectroscopy is preferred.

We are looking for an excellent and highly motivated PhD candidate for a research project on single molecule FRET studies of a neurotransmitter transporter (Machtens et al., *Cell*, **160**, 542, 2015). We aim to identify different intermediates of the transport cycle by employing wide-field /TIR fluorescence microscopy (Fitter et al., *Soft Matter*, **7**, 1254, 2011).

We offer the possibilities to work with state-of-the-art equipment at the interface between physics and molecular biology.

The possibility to join the “*International Helmholtz Research School of Biophysics and Soft Matter*” is given for the successful candidate

(http://www.ihrs-biosoft.de/ihrs-biosoft/EN/Home/home_node.html)

The position will be available for 3 years (50 % 13 TVÖD-L salary).

Please send your application, including a letter of motivation and a CV, by **March 1st, 2018** to Prof. Dr. Jörg Fitter

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