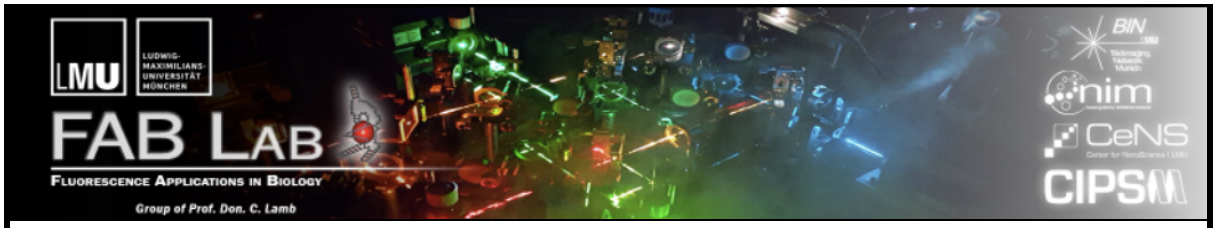

Our interdisciplinary research team is currently looking for a

PhD candidate in Single Molecule FRET Studies of Protein Dynamics

Single-molecule spectroscopy based on Förster resonance energy transfer (smFRET) has emerged as a new tool for accessing the spatial, temporal, and energetic features of proteins. The method and advanced analysis approaches provide unique insights into protein subpopulations and their associated dynamics. Our laboratory focuses currently on heat shock proteins employing 2c/3c smFRET, both in solution as well as with immobilized molecules. For probing protein folding and unfolding, we perform smFRET in combination with microfluidics.

Your responsibilities:
- Protein purification and labeling
- Manufacturing and assembling of sample holders for surface-based smFRET experiments as well as for microfluidic measurements
- Implement, development and extension of fluorescence analysis methods for extracting information from the smFRET data

Your qualification:
- MSc degree in molecular biology, life sciences or bio-/physical chemistry
- Interest in biological applications
- Passion for science and scientific work
- Proficient in written and spoken English as well as German.

Our offer:
- an innovative and stimulating working environment
- a dynamic international research group
- latest equipment and analysis methods in fluorescence
- opportunities for international lab rotations

Literature:
1) Dahiya, Agam et al. *Mol. Cell* (2019) 74:816–830
2) Rosam, Krader et al. *Nat. Struct. Mol. Biol.* (2018) 25:90-100
3) Röhl, Wengler et al *Nat. Commun.* (2015) 6:6655
4) Marcinowski et al. *Nat. Struct. Mol. Biol.* (2011) 18:150-158
5) Lemke et al. *J. Chem. Soc. Rev.* (2009) 131:13610-13612

Applications documents (motivation letter, CV, certificates, two references) should be submitted as soon as possible and no later than **November 1st 2020** as a single PDF file to d.lamb@lmu.de.