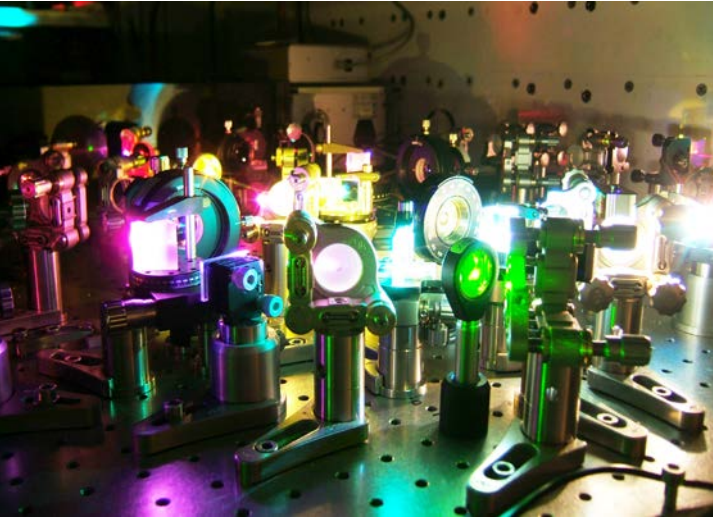
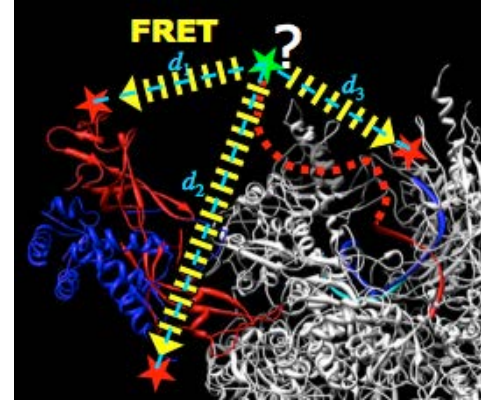


Master Thesis:

Novel microscope for dynamic single-molecule FRET studies

Institute of Biophysics
Prof. Jens Michaelis



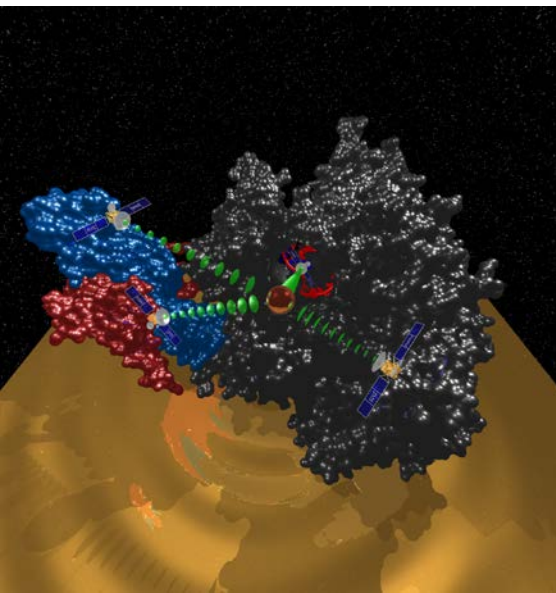
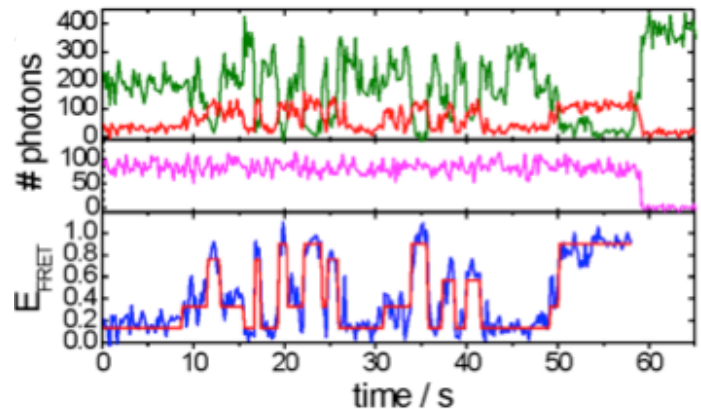
Outline of the project:

Single-molecule experiments allow for the real time investigation of biological complexes.

In this master thesis you are building a novel microscope using multi-colour laser systems and a combination of confocal and TIRF illumination to study different time scales of DNA-protein interactions at the single-molecule level.

What is involved:

- Design and alignment of an optical setup
- Hardware-software interfacing
- Setup characterization
- Data analysis using deep neural networks
- Application to biological systems



Come join our interdisciplinary and international team!

For more information, please contact:

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