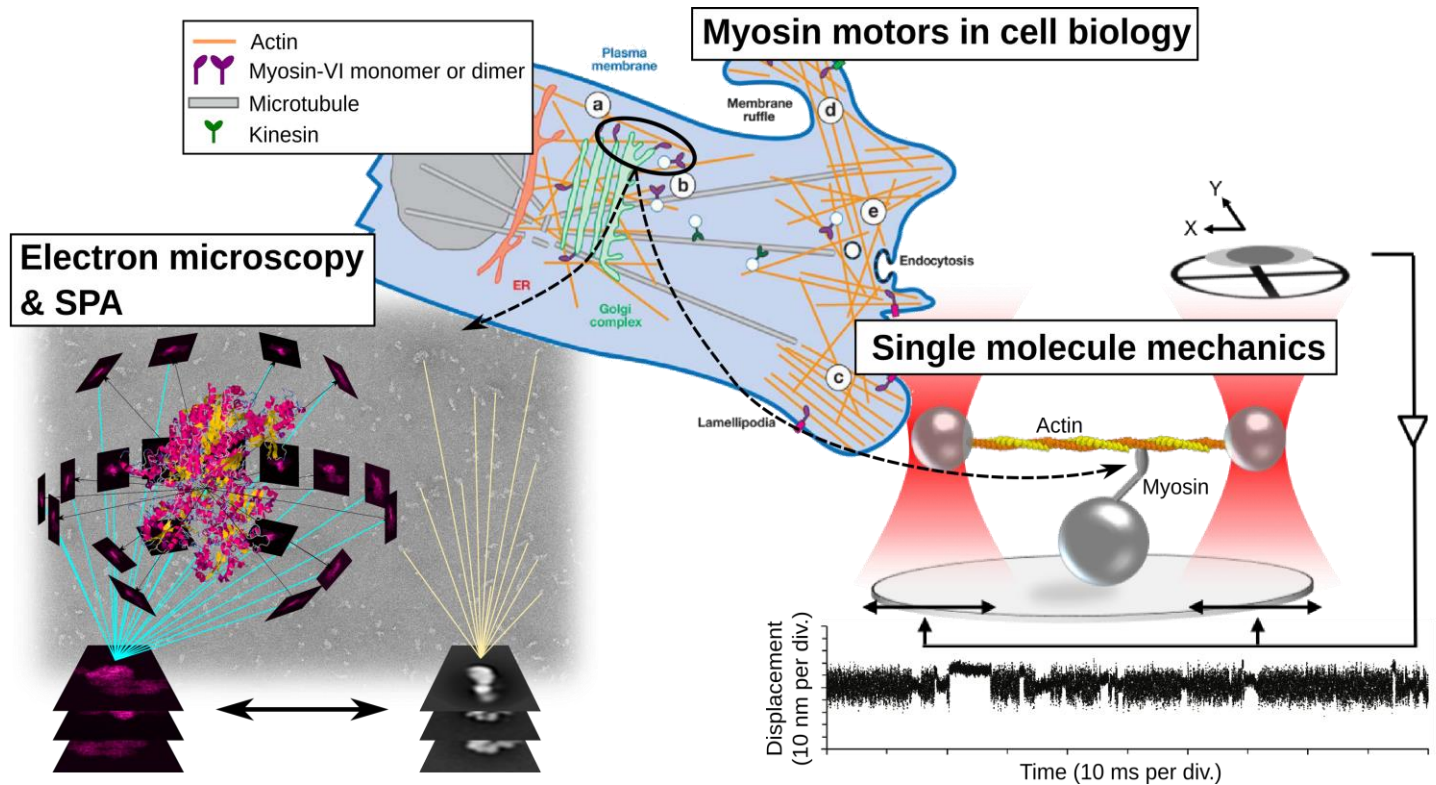


Origins of pattern formation in cell biology:

High resolution structural and mechanical studies on motor proteins



The **Department of Cellular Physiology** in cooperation with the **SFB 863: Forces in Biomolecular Systems** (Technical University and Ludwig Maximilians University Munich) and Munich Centre for Nanosciences (**CeNS**) invites applications for

New PhD projects / masters projects

for students with an interest in interdisciplinary **research in molecular biophysics**.

- Techniques you will apply:
(i) **single molecule mechanics** using optical traps, (ii) **single molecule and super-resolution microscopy**, and (iii) **electron microscopy and single particle image processing**
- Biophysical background:
Function of motor proteins and the cytoskeleton in human health and disease, specifically myosins in hearing, cancer cell motility, myosins in parasite model systems (Malaria/Leishmania)
- Biophysical questions:
(i) mechanical properties and functions of single motor proteins; (ii) collective effects (pattern formation) by myosin motors interacting with model membranes; (iii) modelling in collaboration with the LMU Department of **Theoretical Physics (Prof. Frey)**.

Scientific network for our biophysics students: being part of the SFB 863 and CeNS

Candidates should have a background in *physics, biophysics, chemistry, biochemistry or biology* (Masters, Bachelor) and basic biophysical laboratory skills; good command of the English language; Interested? Do contact us: Prof. Dr. Claudia Veigel, Lehrstuhl Zelluläre Physiologie, LMU München, Biomedizinisches Zentrum, Grosshadernerstrasse 9, 82152 Planegg-Martinsried Germany.

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