



Laura Brinkmann

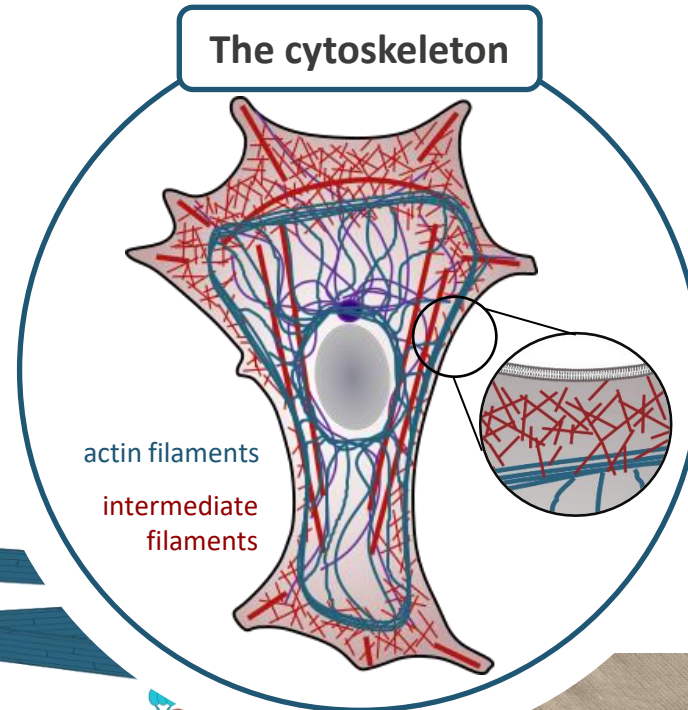
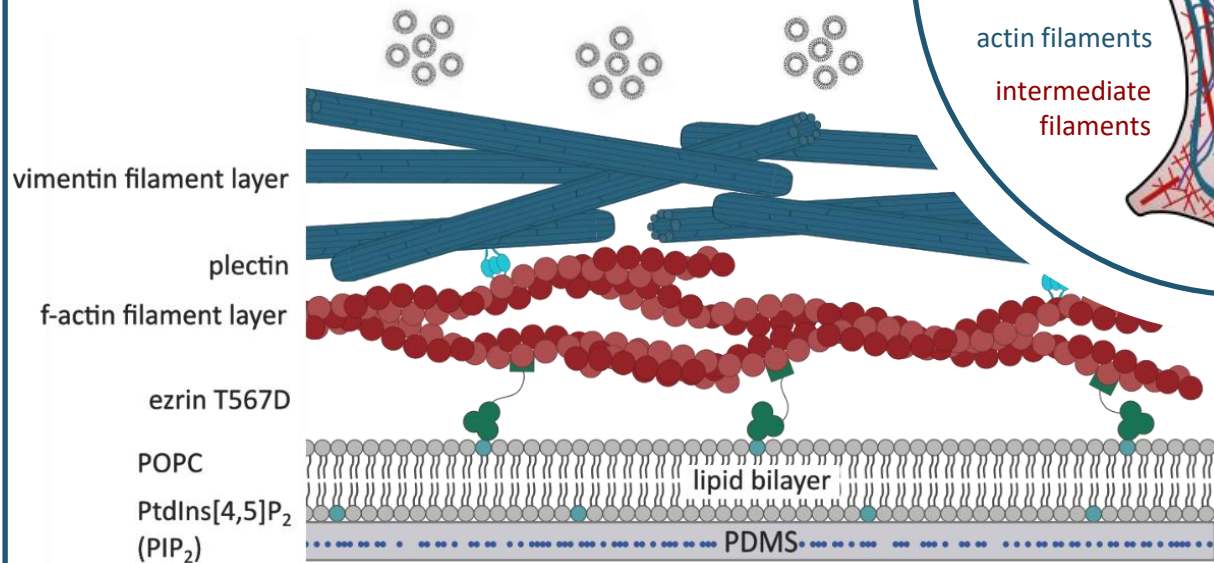
How does the presence of vimentin intermediate filaments influence the structural and mechanical properties of strained membrane-bound f-actin filaments?

How does the system responses to lateral strain?

***In vitro* model system through a bottom-up approach**

- lipid bilayer on PDMS → solid supported membrane (SSM)

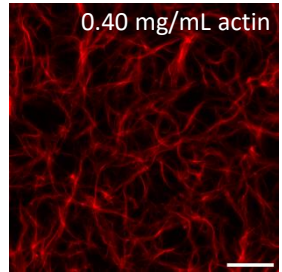
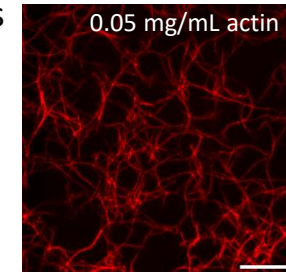
→ mimic the complexity of the cell cortex



Methods:

Confocal microscopy and atomic force microscopy

- Dynamic visualization & topographical imaging of filament networks



Stretching Device: uniaxial motorized stretcher

- allows for controlled and reproducible mechanical strain

