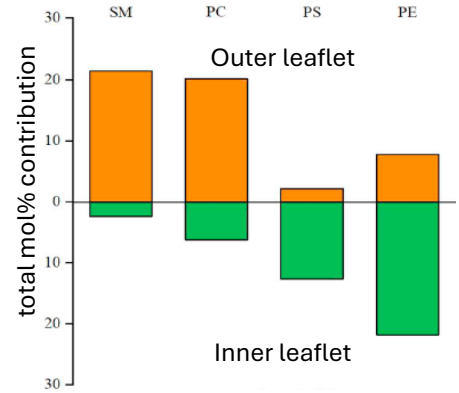


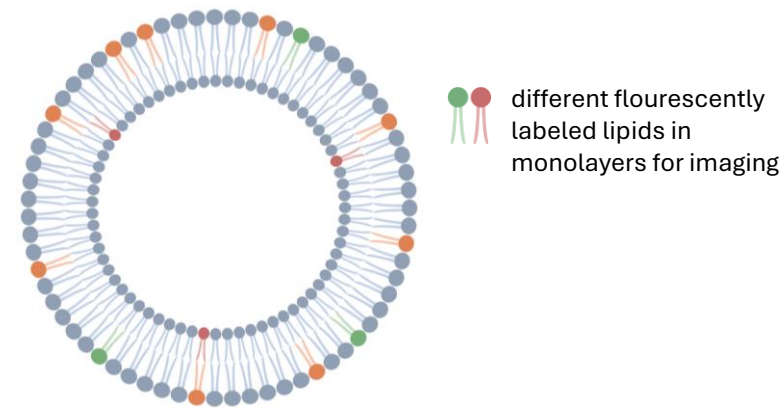
Preparation and Investigation of Asymmetric Pore Spanning Membranes

Distribution of phospholipids of the red blood cell plasma membrane

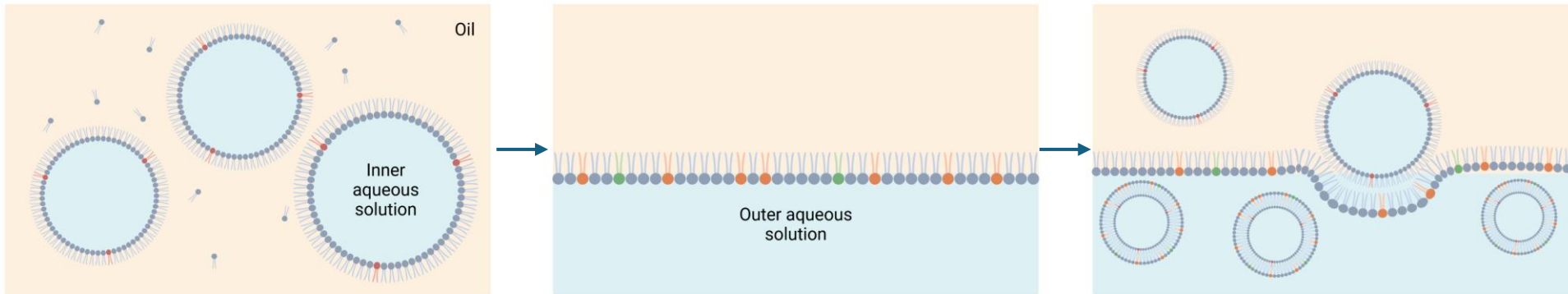


- Asymmetry is crucial for cell communication and transport of molecules through the membrane (e.g. apoptosis)
- Asymmetry influences membrane potential, surface charge, permeability, shape, stability

Preparation of asymmetric Giant Unilamellar Vesicles



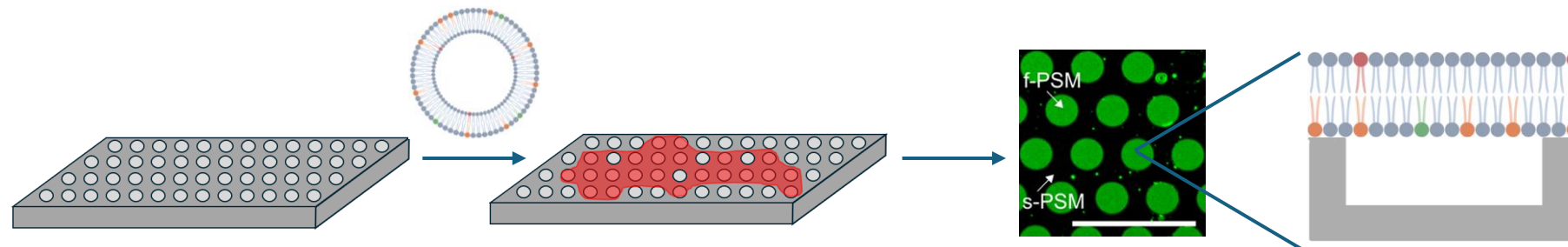
Water-in-oil droplet emulsion to generate asymmetric GUVs



Methoden

- Microfluidic
- High-resolution fluorescence microscopy
- Atomic force microscopy
- Zeta Potential
- etc.

Spreading of asymmetric GUVs on porous substrates to generate asymmetric PSMs



Main Goal

Characterization of the stability and dynamics of asymmetric PSMs