



Contribution ID: 53

Type: not specified

Influence of Genetic Mutation and Disease on Membrane Electrostatics, Mechanics and Dynamics

Mounting evidence suggests that the genetic disorders/mutation and diseases change not only the protein expression patterns but also membranes themselves. In my talk, I will show you some examples how such biological cues influence the dynamic properties of membranes. For this purpose we employ the combination of experimental techniques in real and reciprocal spaces, including grazing incidence X-ray scattering and fluorescence, off-specular neutron scattering, flicker spectroscopy, etc.

Some relevant references

- M. Tanaka and Sackmann, Nature 2005, 437, 656.
- R. Oliveira et al., Phys. Rev. E, 2010 81, 041901.
- E. Schneck et al., PNAS, 2010 107, 9147.
- W. Abuillan et al., Phys. Rev. E 2011, 88, 012705.
- W. Abuillan et al., J. Chem. Phys. 2012, 137, 204907.
- Yamamoto et al., J. Chem. Phys. 2015, 142, 154907.
- Ito et al., Sci. Rep. 2017, 7, 43134.

Author: Prof. TANAKA, Motomu (Heidelberg University, Germany and Kyoto University, Japan)

Presenter: Prof. TANAKA, Motomu (Heidelberg University, Germany and Kyoto University, Japan)