A Holistic View on Aquaporins:

Production, Structure, Function and Interactions

Aquaporins are a class of highly-specialised integral membrane proteins, facilitating the transport of water molecules across the membrane of cells. The function of these proteins is so fundamental, that aberrations in their functions have serious consequences for the organism. We have to understand the structures, molecular functional mechanisms and interaction networks they are involved in, to design potential drugs for diseases such as Alzheimer`s Disease and Neuromyelitis Optica. The results presented in this thesis are not only from theoretical interest, there is also a strong focus on method development for evaluating the molecular function and interactions of aquaporins.

Florian Schmitz obtained his biology degree with a focus on biochemistry and biophysics at the Heinrich-Heine-University in Düsseldorf (Germany) and performed his doctoral research, presented in this thesis book, at the Department of Chemistry and Molecular Biology, University of Gothenburg, Sweden.

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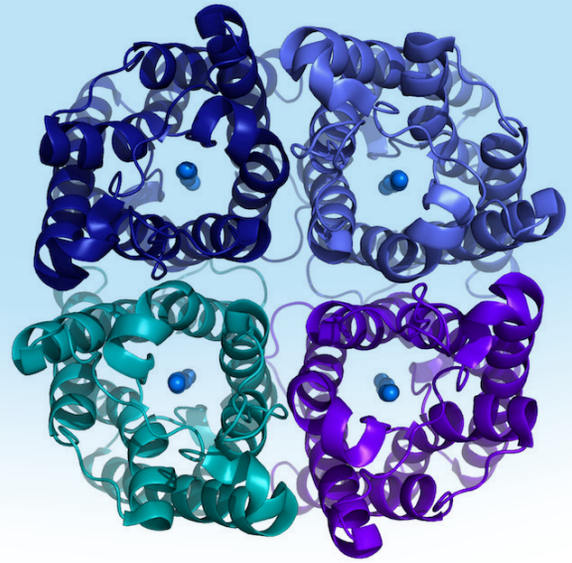

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DEPARTMENT OF CHEMISTRY AND MOLECULAR BIOLOGY

UNIVERSITY OF GOTHENBURG