

## Investigating Seven-Transmembrane Proteins by Solution NMR Methods

*Tuesday 14 January 2020 10:40 (15 minutes)*

I will report on our developments of methodology for assigning 7-TM membrane proteins by solution NMR methods. To this end, information from triple-resonance NMR spectra, from 3D and 4D NOESY spectra and from biochemical and topological information is fed as restraints into the FLYA module of CYANA. Thereby we could assign more than 60 % of backbone and methyl groups of bacteriorhodopsin incorporated into lipid nanodiscs without mutagenesis. In addition, we probed dynamics of methyl groups.

Furthermore, I present first results of our NMR studies conducted on the  $\alpha 1b$  adrenergic receptor. I will in particular highlight our efforts to produce receptor constructs stable for NMR measurements at elevated temperature.

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