

The relation between dynamics and activity of phospholipase A/acyltransferase homologs

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Curriculum Vitae

Soumya Deep Chatterjee was born in Siliguri, India on 18th of May 1990. In 2008, he got accepted in Calcutta University after finishing high school. In 2011, he obtained Bachelor of Science (Honours) degree in Microbiology. Thereafter, he continued studying for a master's degree from the same university in the same year.

His master's thesis was done under the supervision of senior scientist dr. Sujoy Mukherjee of the Indian Institute of Chemical Biology, where he first came across NMR spectroscopy as a technique to study protein dynamics. His thesis was on expressing and purifying a recombinant human immunoglobulin, performing backbone resonance assignment and predicting backbone torsion angles obtained from processing NMR data.

In 2013, he obtained a degree as Master of Science in Microbiology, winning a gold medal for securing the first position. In the same year, he joined Indian Institute of Chemical Biology as research project fellow under senior scientist Dr. Sujoy Mukherjee to continue working on protein dynamics using CPMG relaxation spectroscopy.

In 2014, he started his PhD project within Leiden Institute of Chemistry in then Protein Chemistry (now Macromolecular Biochemistry) group. The research was conducted under the supervision of Prof. Dr. Marcellus Ubbink and Prof. Dr. Mario van der Stelt. During his research, he focused on dissecting the differences in activity and specificity of homologs PLAAT3 and -4 using protein dynamics information obtained from NMR spectroscopy and MD simulation. Parts of his work were presented as posters at an EMBO conference (Munich, 2015), the Netherlands NMR Discussion Group (Wageningen, 2016), the Netherlands Chemistry conference (CHAINS, Veldhoven, 2016) and as oral presentation in Netherlands NMR Discussion Group (Nijmegen, 2018).

Publications

- 1. Chatterjee, S. D., Ubbink, M., and van Ingen, H. (2018) Removal of slow-pulsing artifacts in in-phase 15N relaxation dispersion experiments using broadband 1H decoupling. J. Biomol. NMR 71, 69–77.
- Chatterjee, S. D., Zhou, J., Dasgupta, R., Cramer-Blok, A., Timmer, M., van der Stelt, M., and Ubbink, M. (2021) Protein Dynamics Influence the Enzymatic Activity of Phospholipase A/Acyltransferases 3 and 4. Biochemistry 60, 1178–1190.