

PhD course “Biophysical Aspects of Protein Folding and Stability” in Tromsø, Norway

The course “Biophysical Aspects of Protein Folding and Stability” was organized by BioStruct, the National Graduate School of Structural Biology in Norway, as part of the Nordic Network in Bioinformatics. The course took place May 31st to June 11th 2010 at the Institute of Chemistry, University of Tromsø. Students of the different member schools of the Nordic Network in Bioinformatics from Finland, Norway and Sweden were attending the course.

The course concentrated on theory of kinetics and thermodynamics of protein folding and stability and case studies from different research fields. Lectures were mainly held by researchers from University of Tromsø, Ingar Leiros, Hanna-Kirsti Leiros and Bjørn Olav Brandsdal, but also guest lecturers from other Universities in Norway were there. In addition, several methods to study protein folding and stability were introduced. One of them, differential scanning calorimetry (DSC), was demonstrated in a practical part by Bjørn Olav Brandsdal.

The course gave an in-depth knowledge about the reasons behind the folding of linear polypeptide chains into three-dimensional structures and the forces that make the protein stable or instable. The knowledge I gained in this course supports my research since it is my goal to engineer stable proteins for biotechnical applications. Introduction to calorimetric methods will be helpful in my future research where I plan to employ them to study the stability of my engineered proteins.

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