PhD Course announcement
Norwegian Graduate school in Structural Biology - A collaboration between 5 universities

KJE8701 BIOSTRUCT - Biophysical aspects of protein folding and stability
Norwegian Centre for Structural Biology (NorStruct), Department of Chemistry, University of Tromsø - The Arctic University of Tromsø (UiT).

Time of course: March 7-16, 2016
Place: NorStruct, Forskningsparken 3, UiT
ECTS: 5 (PhD level course)
Teaching: Lectures and lab classes
Exam: Oral exam, pass/fail grade, date TBA
Deadline for registration: 15.02.2015 12:00

Contact for registration and accommodation: Maarten Beerepoot, UiT (bio-struct@uit.no / +47 776 23103)
Course responsible: Arne Smalås, UiT (arne.smalas@uit.no / +47 776 44070)
External students must register as a guest student at UiT.

Course content
The course will cover thermodynamic and kinetic aspects of protein stability and folding. Mechanisms and models for denaturation, folding and refolding of proteins will be discussed from both a thermodynamic and a kinetic point of view. The thermodynamics of various states of the protein (native, unfolded and intermediate states) will be discussed, including the Molten globule state. Biophysical properties relevant to protein stability (hydrophobicity, charge, amino acid composition, solvent, secondary structure, etc) will be covered. Methods for studying folding and stability will be presented: NMR, Calorimetry, Circular Dichroism (CD), and other spectroscopic techniques. Practical exercises using Differential Scanning Calorimetry (DSC) will be used to illustrate some of the concepts.

Note! BioStruct covers the costs for travel and accommodation for BioStruct students participating in national courses at Norwegian universities other than the student’s home institution. For information contact Maarten Beerepoot, biostruct@uit.no / +47 776 23103 / http://biostruct.uit.no. If the number of applicants exceeds the capacity of the course, 75% of the course admissions will be reserved students attending the PhD school, BioStruct. The course may be cancelled if the number of registered participants is too low. Registered students will be contact shortly after the registration deadline.