

NORSTRUCT-course in “**Macromolecular crystallization**”, September 20. – 26, 2006, University of Tromsø

	Wednesday 20. September	Thursday 21. September	Friday 22. September	Monday 25. September	Tuesday 26. September
09.15 - 10.00	Welcome and Introduction Lecture 1: Crystallography – Why and how <i>Arne O. Smalås</i>	Lecture 3: Factors influencing crystal formation and growth <i>Arne O. Smalås</i>	Lecture 5: Sample preparation <i>Arne O. Smalås</i>	Lecture 7: Handling, mounting and storage of protein crystals <i>Ronny Helland</i>	Lecture 8: Crystallography in the postgenomic area. <i>Arne O. Smalås</i>
10.15 - 11.00	Lecture 2: Crystallization methods – An Overview <i>Arne O. Smalås</i>	Lecture 4: Evaluation and optimization of results <i>Ronny Helland</i>	Lecture 6: Crystal seeding techniques <i>Ronny Helland</i>	Lab. Introduction <i>Ronny Helland</i> Practicals 1. Inspection of experiments 2. Challenge Your own protein? Catalase Hemoglobin (cow, pig) Subtilisin 3. Crystallization with a robot Search the databases, pdb and literature for clues and starting points	Lab. Introduction <i>Ronny Helland</i> Practicals 1. Handling the crystals Capillary mounting Storage Freeze protection Loop mounting 2. X-ray testing of crystals <i>Continued until approx. 14:00</i>
11.15-11.30	Lab. Introduction <i>Vibeke Os</i>	Lab. Introduction <i>Vibeke Os</i>	Lab. Introduction <i>Ronny Helland</i>		
11.30	Lunch	Lunch	Lunch		
12.15 – 18.00	Practicals 1. Introduction 2. Preparation Buffers Precipitation agents Hardware etc 3. Screening lysozym (batch) pH Precipitation agent cons. Precipitation agent type Protein concentration	Practicals 1. Inspection of experiments 2. Screening by kits 3. Self-made screens Myoglobin ConcanavalinA Trypsin + Benzamidine 4. Preparation for seeding experiments	Practicals 1. Inspection of experiments 2. Crystallization of protein complexes 3. Seeding		