

Programme 26-30 Sep 2016

Course: **Biomolecular NMR: advanced tools for studying protein and RNA dynamics (up to 4 ECTS)**

Address: Swedish NMR Centre, University of Gothenburg
Medicinaregatan 5C, 41390 Gothenburg, Sweden

Info: <http://www.nmr.gu.se/english/courses/>

Course teachers

MA	Mikael Akke	Prof.,	Lund University, Sweden
WB	Wolfgang Bermel	Dr.,	Bruker BioSpin GmbH, Germany
MB	Martin Billeter	Prof.,	University of Gothenburg, Sweden
FH	Flemming Hansen	Ass.Prof.,	University College, London, UK
PL	Patrik Lundström	Ass.Prof.,	Linköping University, Sweden
MM	Maxim Mayzel	Dr.	University of Gothenburg, Sweden
VO	Vladislav Orekhov	Prof.,	University of Gothenburg, Sweden
KP	Katja Petzold	Ass.Prof.	Karolinska Institutet Sweden

Time	Title	Type	Place	Teachers
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Monday Sep 26

8.50 – 9.15	Registration and Coffee			
9.15 – 9.30	Welcome, information		Lect. room	
9.30 – 11.00	Student presentations	5min/student	Lect. room	
11.00 – 12.20	Quantitative NMR with Non-Uniform Sampling Lecture		<i>Instr. room</i>	VO
12.20 – 13.50	Lunch			
13.50 – 17.30	NMR signal processing	<i>Lab</i>	<i>Instr. room</i>	VO, MM, MB
17.30 – 19.00		Get-together	Entry hall	

Tuesday Sep 27

9.00 – 10.30	Millisecond dynamics and measurements of protein excited state chemical shifts	Lecture	Lect. room	PL
10.30 – 10.50	Coffee Break			
10.50 – 12.20	Millisecond dynamics	Lab	<i>Instr. room</i>	PL
12.20 – 14.00	Lunch			
14.00 – 15.30	Functional dynamics in DNA and RNA	Lecture	Lect. room	KP
15.30 – 16.00	Coffee Break			
16.00 – 17.30	Millisecond dynamics (continuation)	<i>Lab</i>	<i>Instr. room</i>	PL

Wednesday Sep 28

9.00 – 10.00	Functional dynamics in DNA and RNA	Lab	Lect. Room	KP
10.00 – 10.30	Coffee Break			
10.30 – 12.00	Functional dynamics in DNA and RNA	<i>Lab</i>	Lect. Room	KP

12.00 – 13.20	Lunch			
13.20 – 14.50	Relaxation dispersion, side-chains, and IDPs	Lecture	Lect. Room	FH
14.50 – 15.20	Coffee Break			
15.20 – 18.00	Relaxation dispersion, side-chains, and IDPs	Lab	Lect. Room	FH

Thursday Sep 29

08.50 – 13.30 **Mini-symposium: NMR dynamics in Structural Biology**

Place: *Lecture Room at the Swedish NMR Centre*

08.50 – 09.00	coffee			
09.00 – 09.30	Functional dynamics in DNA and RNA Katja Petzold, Karolinska Institutet Sweden			
09.30 – 10.00	NMR Methods to Characterise Protein Dynamics: Loops, side-chains, and ions Flemming Hansen, University College, London, UK			
10.00 – 10.20	coffee			
10.20 – 10.50	Different approaches to decoupling Wolfgang Bermel, Bruker BioSpin GmbH, Germany Germany			
10.50 – 11.20	Dynamics of protein folding and interactions Mikael Akke, Lund University, Sweden			
11.20 – 11.50	<i>Protein NMR structure refinement - current developments</i> Chris Spronk, Swedish NMR Centre, University of Gothenburg			
12.00 – 13.30	Lunch (<i>Wallenberg conference centre, Medicinaregatan 20 A</i>)			

The course continues at the Swedish NMR Centre

13.30 – 16.30	Pulse programming (With coffee 20 min)	Lab	Lect. Room	WB
16.30 – 17.30	Discussions and report wrap-ups		Lect. Room	VO,...

Friday Sep 30

9.00 – 10.30	Dynamics of protein folding and interactions <i>Model-free analysis</i>		Lecture	Lect. Room	MA
10.30 – 10.50	coffee Break				
10.50 – 12.10	<i>Model-free analysis</i>	Lab	Lect. Room	MA	
12.10 – 13.20	Lunch				
13.20 – 15.00	<i>Model-free analysis</i>	Lab	Lect. Room	MA	
15.00 – 16.00	Discussions and report wrap-ups		Lect. Room	MA, VO ...	