

# Programme EMBO Munich 2011

28.07.2011

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	29.7.	30.7.	31.7.	1.8.	2.8.	3.8.	4.8.	5.8.
09:00		Data processing, <u>Delaglio</u>	NMR structure calculation, <u>Malliavin</u>	Deuteration, <u>Nietlispach</u>	Cross correlated relaxation, RDCs dynamics, <u>Griesinger</u>	RDC/Relaxation, <u>Grzesiek, Tjandra</u>	Large proteins, <u>Riek</u>	Structure Validation, <u>Vuister</u>
10:15		Coffee	Coffee	Coffee	Coffee	Coffee	Coffee	Coffee
10:45		RDCs, Dynamics <u>Blackledge</u>	NMR structure calculation, <u>Güntert</u>	Ligand binding, isotope filters <u>Mott</u>	Meet instructors and tutors with your data and questions	RDC/Relaxation, <u>Tjandra, Grzesiek</u>	NMR of nucleic acids, <u>Schwalbe</u>	Practical <b>P11</b> Structure validation
12:00		Lunch	Lunch	Lunch (Mensa)		Lunch (Mensa)	Lunch (Mensa)	Lunch Boxes
13:30	Introduction Presentation of participants forming of groups	Practicals <b>P1, P3</b>	Practicals <b>P1, P5</b>	Practicals <b>P2,P3</b>	Excursion Leave 13:00 Lunch boxes  Kloster Andechs S-Bahn + Hike	Practicals <b>P7, P8</b>	13:00-15:00 Practicals <b>P12-P18</b>	
	14:30-15:45 Product operators, <u>Glaser</u>							
16:00	Coffee	Coffee	Coffee	Coffee			Coffee	15:00-15:30 Coffee
16:30	16:15-17:30 Heteron. NMR: basics <u>Sattler</u> 17:45-19:00 phase cycle, gradients, <u>Nietlispach</u>	Practicals <b>P2, P4</b>	Practicals <b>P4, P6</b>	Practicals <b>P5, P6</b>		Practicals <b>P7, P8</b>	15:30-17:30 Practicals <b>P12-P18</b>	
19:00	Dinner	Dinner	Dinner	Dinner	Free	Dinner	18:00 Round Table	
20:30	Past+Future of NMR: <u>Griesinger</u> 21:30 Poster Session Drinks+snacks	Practicals <b>P9,P10</b> 20:30-21:30 21:30-22:30	J-couplings, Vuister  Afterwards: Drinks+snacks	Fast NMR, Brutscher  Afterwards: Drinks+snacks	Free	Practicals <b>P12-P18</b>	Course Dinner  Leave 19:30 20:30 Hofbräuhaus	

## Practicals EMBO Munich 2011

	Description	Instructors	Room	Time	# groups	duration
<b>P1a</b>	NMR basics: heteronuclear pulse calibration, proton T2, etc.	<b>Simon, Haessner</b> , Grzesiek	AVIII 500 cryo	Sat, Sun	1	2:30
<b>P1b</b>		<b>Nietlispach</b> , Griesinger, <b>Gemmecker</b>	AVIII 600	Sat, Sun	1	2:30
<b>P1c</b>		<b>Kern, Sattler</b> , Tjandra	AVIII 750	Sat, Sun	1	2:30
<b>P2a</b>	NMR triple resonance: exp setup, acquisition times, deuteration, cryoprobe etc.	<b>Simon, Haessner</b> , Grzesiek	AVIII 500 cryo	Sat, Mon	1	2:30
<b>P2b</b>		<b>Nietlispach</b> , Griesinger, <b>Gemmecker</b>	AVIII 600	Sat, Mon	1	2:30
<b>P2c</b>		<b>Kern, Sattler</b> , Tjandra	AVIII 750	Sat, Mon	1	2:30
<b>P3</b>	ANALYSIS/CCPN [AZARA?]	<b>Mott</b>	PCC	Sat, Mon	3	
<b>P4</b>	NMRPipe processing	<b>Delaglio</b> , Vuister, Grzesiek	PCC	Sat, Sun	3	2:30
<b>P5</b>	ARIA/CNS	<b>Malliavin, Bardiaux</b>	PCC	Sat, Mon	3	2:30
<b>P6</b>	CYANA	<b>Güntert, Buchner</b>	CIP1	Sat, Mon	3	2:30
<b>P7</b>	RDCs: practical NMR,	Tjandra, Grzesiek	AVIII 600	Wed	3	
<b>P8</b>	RDCs, 15N relaxation: data analysis	Tjandra	PCC	Wed	3	2:30
<b>P9</b>	RDCs, 15N relaxation software MODULE, TENSOR	Blackledge	PCC	Sat	3	1:15
<b>P10</b>	TALOS, RDCs, MFR	Delaglio	CIP1	Sat	3	1:15
<b>P11</b>	Structure validation	Vuister	CIP1+CIP2	Fri	6	1:30
<b>P12</b>	Sparky	<b>Jonker</b> /Schwalbe	CIP1	Wed, Thu		2:00
<b>P13</b>	Structure Calculation RNA	<b>Jonker</b> /Schwalbe	CIP1	Wed, Thu		2:00
<b>P14</b>	NMRView	<b>Simon, Dames</b>	PCC	Wed, Thu		2:00
<b>P15</b>	Build HNCO pulse sequence from scratch	Grzesiek/Tjandra	AVIII 600	Wed, Thu		2:00
<b>P16</b>	PREs, data analysis and structure calculation	<b>Simon, Kern</b>	HOME	Wed, Thu		2:00
<b>P17</b>	Introduction to WeNMR grid computing	<b>Jonker</b> /Schwalbe	CIP1	Wed, Thu		2:00
<b>P18</b>	Advanced NMR (large proteins)	Riek	AVIII 500 cryo	Wed		2:00
	P1-P11 done by everybody	<b>Tutors: Sonja Dames, Gerd Gemmecker, Rainer Haessner, Thomas Kern Henry Jonker, Therese Malliavin, Benjamin Bardiaux, Lena Buchner</b>				
	P12-P18 optional 3 out of 7					

Rooms and locations
<b>NMR:</b> AVIII 500 cryo, AVIII 600, AVIII 750
<b>Computer:</b> CIP1 CIP2 (CIP1+2 on Fri 5.8.)
PCC (PC computer cluster, Room 43307)
<b>HOME: Room 53301</b> Coffee Break: Room 53106 Dinner/Lunch: Room 53306

## Practical Schedule per Group

	Saturday				Sunday		Monday		Wednesday			Thursday		Friday
<b>Start</b>	13:30	16:30	20:30	21:30	13:30	16:30	13:30	16:30	13:30	16:30	20:30	13:00	15:30	10:45
<b>End</b>	16:00	19:00	21:30	22:30	16:00	19:00	16:00	19:00	16:00	19:00	22:30	15:00	17:30	12:15
<b>G1</b>	P1a	P2a	P10	P9	P5	P4	P3	P6	P7	P8	P12-P18	P12-P18	P12-P18	P11
<b>G2</b>	P1b	P2b	P10	P9	P5	P4	P3	P6	P7	P8				
<b>G3</b>	P1c	P2c	P10	P9	P5	P4	P3	P6	P7	P8				
<b>G4</b>	P3	P4	P9	P10	P1a	P6	P2a	P5	P8	P7				
<b>G5</b>	P3	P4	P9	P10	P1b	P6	P2b	P5	P8	P7				
<b>G6</b>	P3	P4	P9	P10	P1c	P6	P2c	P5	P8	P7				

**G1-G6** groups of 6 students, defined on the first day (Fri 29.7.) based on similar level of knowledge