

## Programme EMBO Munich 2009

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday
	27.7.	28.7.	29.7.	30.7.	31.7.	1.8.	2.8.	3.8.
<b>09:00</b>		Data processing, <u>Delaglio</u>	NMR structure calculation, <u>Nilges</u>	RDC/Relaxation, <u>Grzesiek, Tjandra</u>	Cross correlated relaxation, RDCs dynamics, <u>Griesinger</u>	TROSY and large proteins, <u>Pervushin</u>	J-couplings, <u>Vuister</u>	Structure Validation, <u>Vuister</u>
<b>10:15</b>		<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	<b>Excursion</b>  Partnachklamm and Eckbauer (Garmisch-Partenkirchen)	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>
<b>10:45</b>		RDCs, Structure, Dynamics and Disorder, <u>Blackledge</u>	NMR structure calculation, <u>Güntert</u>	RDC/Relaxation, <u>Tjandra, Grzesiek</u>		NMR of nucleic acids, <u>Schwalbe</u>	Deuteration, Ligand Binding, X-filters, <u>Mott</u>	Practical <b>P11</b> Structure validation
<b>12:00</b>		<i>Lunch (Mensa)</i>	<i>Lunch (Mensa)</i>	<i>Lunch (Mensa)</i>		<i>Lunch (MPI)</i>	<i>Lunch (MPI)</i>	<i>Lunch (Mensa)</i>
<b>13:30</b>	Introduction <b>Presentation of participants</b> forming of groups	Practicals <b>P1, P3</b>	Practicals <b>P1, P5</b>	Practicals <b>P7, P8</b>		Practicals <b>P2, P3</b>	<b>13:00-15:00</b> Practicals <b>P12-P18</b>	
	<b>14:30</b> Heteron. NMR I: basics, <u>Sattler</u>							
<b>16:00</b>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>	<i>Coffee</i>		<i>Coffee</i>	<b>15:00-15:30</b> <i>Coffee</i>	
<b>16:30</b>	Heteron. NMR II: phase cycle, gradients, <u>Nietlispach</u>	Practicals <b>P2, P4</b>	Practicals <b>P4, P6</b>	Practicals <b>P7, P8</b>		Practicals <b>P5, P6</b>	<b>15:30-17:30</b> Practicals <b>P12-P18</b>	
<b>19:00</b>	<i>Dinner (MPI)</i>	<i>Dinner (MPI)</i>	<i>Dinner (MPI)</i>	<i>Dinner + Drinks (Foyer)</i>		<i>Dinner (MPI)</i>	<b>18:00</b> <b>Round Table</b>	
<b>20:15</b>	Past+Future of NMR: <u>Griesinger</u>	Fast NMR, <u>Brutscher</u>	Practicals <b>P9, P10</b>	<u>Al Redfield</u> "Applications of High Resolution Field Cycling to Membrane-Protein Interaction"  <i>Afterwards:</i> Beer+Drinks	Free	Practicals <b>P12-P18</b>	<b>Course Dinner</b>  Leave 19:30 20:30 Hofbräuhaus	
<b>21:15</b>	Poster Session with Beer+Drinks							

26.07.2009

### Practicals EMBO Munich 2009

	Description	Instructors	Room	Time	# groups	duration
P1a	NMR basics: heteronuclear pulse calibration, proton T2, etc.	Simon, Haessner, Grzesiek	AVIII 600 cryo	Tue, Wed	1	2:30
P1b		Nietlispach, Griesinger, Gemmecker	AVIII 600	Tue, Wed	1	2:30
P1c		Madl, Sattler, Tjandra	AVIII 750	Tue, Wed	1	2:30
P2a	NMR triple resonance: exp setup, acquisition times, deuteration, cryoprobe etc.	Simon, Haessner, Grzesiek	AVIII 600 cryo	Tue, Wed	1	2:30
P2b		Nietlispach, Griesinger, Gemmecker	AVIII 600	Tue, Wed	1	2:30
P2c		Madl, Sattler, Tjandra	AVIII 750	Tue, Wed	1	2:30
				Tue, Wed		
P3	ANALYSIS/CCPN [AZARA?]	Mott	PCC	Tue, Wed	3	
P4	NMRPipe processing	Delaglio, Vuister, Grzesiek	PCC	Tue, Wed	3	2:30
P5	ARIA/CNS	Nilges, Bardiaux	PCC	Wed, Sat	3	2:30
P6	CYANA	Güntert, Kirchner	CIP1	Wed, Sat	3	2:30
P7	RDCs: practical NMR,	Tjandra, Grzesiek	AV600	Thu	3	
P8	RDCs, 15N relaxation: data analysis	Tjandra	PCC	Thu	3	2:30
P9	RDCs, 15N relaxation software MODULE, TENSOR	Blackledge	PCC	Wed	3	1:15
P10	TALOS, RDCs, MFR	Delaglio	CIP1	Wed	3	1:15
P11	Structure validation	Vuister	CIP1+CIP2	Mon	6	1:30
P12	Sparky	Jonker/Mathieu/Schwalbe	CIP1	Sat, Sun		2:00
P13	Structure Calculation RNA	Jonker/Mathieu/Schwalbe	CIP2	Sat, Sun		2:00
P14	NMRView	Simon	PCC	Sat, Sun		2:00
P15	Build HNCO pulse sequence from scratch	Grzesiek/Tjandra	AV600	Sat, Sun		2:00
P16	Advanced NMR+calculation: PRES	Simon, Madl	HOME	Sat, Sun		2:00
P17	NMR of RNA	Jonker/Mathieu/Schwalbe	AV750	Sat, Sun		2:00
P18	Advanced NMR (large proteins, 13C detect)	Madl, Simon	AV600 cryo	Sat, Sun		2:00
	P1-P11 done by everybody	Tutors (Madl, Gemmecker, Haessner, Jonker, Mathieu, Kirchner, Bardiaux)				
	P12-P18 optional 3 out of 7					

Rooms and locations
<b>NMR:</b> AVIII 600 cryo, AVIII 600, AVIII 750
<b>Computer:</b> CIP1 CIP2 (CIP1+2 on 3.8.)
PCC (PC computer cluster, Room 43307)
HOME (Room 53301)

## Practical Schedule per Group

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

**G1-G6** groups of 6 students, defined on Monday, based on common level of knowledge