

Programme EMBO course NMR Basel 2017

| | Saturday | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--------------|--|--|--|--|--|--|--|--|
| | 5.8. | 6.8. | 7.8. | 8.8. | 9.8. | 10.8. | 11.8. | 12.8. |
| 09:00 | | J-couplings, <u>Vuister</u> | Ligand binding, isotope filters, <u>Mott</u> | RDC/Relaxation, <u>Grzesiek, Tjandra</u> | Cross correlated relaxation, RDC dynamics and fast kinetics, <u>Griesinger</u> | In cell NMR, <u>Banci</u> + X nuclei direct detection, <u>Felli</u> | Projection NMR + NMR of membrane proteins, Hybrid structure determination, <u>Hiller</u> | Structure Validation, <u>Vuister</u> |
| 10:15 | | Coffee (room 108) | Group Foto Coffee (room 108) | Coffee (room 108) | Coffee (room 108) | Coffee (room 108) | Coffee (room 108) | Coffee (room 108) |
| 10:45 | | NMR structure calculation, <u>Nilges</u> | NMR structure calculation, <u>Güntert</u> | Deuteration and isotope labeling methods, <u>Nietlispach</u> | Meet instructors and tutors with your data and questions | NMR exchange techniques (rel. disp., CEST, ZZ-exchange), <u>Jensen</u> | Large proteins, <u>Riek</u> | Practical P11 Structure validation |
| 12:00 | | Lunch (Biozentrum cafeteria) | Lunch (Mensa) | Lunch (Mensa) | Lunch boxes | Lunch (Mensa) | Lunch (Mensa) | Sandwich lunch (Biozentrum cafeteria) |
| 13:30 | Introduction Presentation of participants forming of groups | Practicals P1, P3 | Practicals P1, P3 | Practicals P2, P5 | Excursion Hike | Practicals P7, P8 | 13:00-15:00 Practicals P12-P21 | |
| | 14:30-15:45 Past+Future of NMR, <u>Griesinger</u> | | | | | | | |
| 16:00 | Coffee (room 108 + Gallery Pharmazentrum) | Coffee (room 108) | Coffee (room 108) | Coffee (room 108) | | Coffee (room 108) | 15:00-15:30 Coffee (room 108) | |
| 16:30 | Heteron. NMR: 16:15-17:30 basics, <u>Sattler</u> 17:45-19:00 phase cycle, gradients, <u>Nietlispach</u> | Practicals P2, P4 | Practicals P4, P6 | Practicals P5, P6 | | Practicals P7, P8 | 15:30-17:30 Practicals P12-P21 | |
| 19:00 | Dinner (room 108 + Gallery Pharmazentrum) | Dinner (Biozentrum cafeteria) | Dinner (Biozentrum cafeteria) | Dinner (Biozentrum cafeteria) | Free | Dinner (Biozentrum cafeteria) | 17:30 Round Table | |
| 20:00 | Data processing, <u>Delaglio</u> | NMR of nucleic acids, <u>Petzold</u> | RDCs, Dynamics, <u>Blackledge</u> | Practicals P9, P10 | Free | Practicals P12-P21 | Course Dinner Restaurant 1777 Im Schmiedehof 10 Leave 19:00 | |
| 21:15 | Poster Session with drinks+snacks | Poster Session with drinks+snacks | Poster Session with drinks+snacks | Practicals P9, P10 | Free | | | |

Practicals EMBO course NMR Basel 2017

| | Description | Instructors | Room | Day | Time | Group | Duration |
|------------|---|--------------------------------------|-----------------------------|------------------------------|----------------|----------------|----------|
| P1a | NMR basics: heteronuclear pulse calibration, proton T2, etc. | Simon , Sass | AVIII 600 cryo (Biozentrum) | Sun Mon | 13:30 13:30 | G1 G5 | 2:30 |
| P1b | | Hiller , Bibow, Griesinger | AVIII 700 cryo (Chemie) | Sun Mon | 13:30 13:30 | G2 G6 | 2:30 |
| P1c | | Nietlispach , Häussinger | AVIII 600 cryo (Chemie) | Sun Mon | 13:30 13:30 | G3 G7 | 2:30 |
| P1d | | Sattler , Habazettl, Tjandra | AVIII 600 (Biozentrum) | Sun Mon | 13:30 13:30 | G4 G8 | 2:30 |
| P2a | NMR triple resonance: exp setup, acquisition times, deuteration, cryoprobe etc. | Simon , Sass | AVIII 600 cryo (Biozentrum) | Sun Tue | 16:30 13:30 | G1 G5 | 2:30 |
| P2b | | Hiller , Bibow, Griesinger | AVIII 700 cryo (Chemie) | Sun Tue | 16:30 13:30 | G2 G6 | 2:30 |
| P2c | | Nietlispach , Häussinger | AVIII 600 cryo (Chemie) | Sun Tue | 16:30 13:30 | G3 G7 | 2:30 |
| P2d | | Sattler , Habazettl, Tjandra | AVIII 600 (Biozentrum) | Sun Tue | 16:30 13:30 | G4 G8 | 2:30 |
| P3 | ANALYSIS/CCPN [AZARA?] | Mott | BZ R105 | Sun Mon | 13:30 13:30 | G5-G8 G1-G4 | |
| P4 | NMRPipe processing | Delaglio , Habazettl, Vuister | BZ R105 | Sun Mon | 16:30 16:30 | G5-G8 G1-G4 | 2:30 |
| P5 | ARIA/CNS | Nilges , Malliavin | BZ R105 | Tue Tue | 13:30 16:30 | G1-G4 G5-G8 | 2:30 |
| P6 | CYANA | Güntert | Kiwi | Mon Tue | 16:30 16:30 | G5-G8 G1-G4 | 2:30 |
| P7 | RDCs: practical NMR | Grzesiek | AVIII 600 | Thu Thu | 13:30 16:30 | G1-G4 G5-G8 | 2:30 |
| P8 | RDCs, 15N relaxation: data analysis | Tjandra | Kiwi | Thu Thu | 13:30 16:30 | G5-G8 G1-G4 | 2:30 |
| P9 | RDCs, 15N relaxation software MODULE, TENSOR | Blackledge | BZ R105 | Tue Tue | 20:00 21:15 | G1-G4 G5-G8 | 1:15 |
| P10 | TALOS, RDCs, MFR | Delaglio | Kiwi | Tue Tue | 20:00 21:15 | G5-G8 G1-G4 | 1:15 |
| P11 | Structure validation | Vuister | BZ R105 | Sat | 10:45 | G1-G8 | 1:30 |
| P12 | Sparky | Jonker | Kiwi | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P13 | Structure Calculation RNA using the WeNMR portal | Jonker | Kiwi | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P14 | Structure Calculation with PREs in Aria | Simon | BZ R105 or Mango | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P15 | Haddock | Mott | BZ R105 or Mango | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P16 | NMR exchange techniques | Jensen | BZ R105 or Mango | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P17 | 13C-detected experiments | Felli | AVIII 6/900 cryo | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P18 | Practical aspects of in-cell NMR | Banci | HS2 | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P19 | Build HNCO pulse sequence from scratch | Grzesiek , Tjandra, TBA | AVIII 600 | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P20 | Advanced NMR (large proteins) | Riek | AVIII 900 cryo | Thu evening Fri afternoon | TBA | free choice | 2:00 |
| P21 | APSY-NMR | Hiller | AVIII 700 cryo | Thu evening Fri afternoon | TBA | free choice | 2:00 |

P1-P11 done by everybody

P12-P21 optional 3 out of 10

| Rooms and locations | Responsibles |
|---|--|
| NMR: | |
| AVIII 600 (Biozentrum, NMR600_2) TopSpin 3.2pl7 | Sass/Habazettl Juergen.Sass@unibas.ch, ++41 61 207 2263 j.habazettl@unibas.ch, ++41 61 207 2263 |
| AVIII 600 cryo (Chemie) TopSpin 3.2pl1 | Häussinger daniel.haeussinger@unibas.ch, ++41 61 207 1159 |
| AVIII 700 cryo (Chemie) TopSpin 3.0/3.2 | Hiller/Bibow sebastian.hiller@unibas.ch, ++41 61 207 2082 stefan.bibow@unibas.ch, ++41 61 207 2249 |
| AVIII 600 cryo (Biozentrum, nmr600_3) TopSpin 3.2pl7 | Sass/Habazettl Juergen.Sass@unibas.ch, ++41 61 207 2263 j.habazettl@unibas.ch, ++41 61 207 2263 |

| Computer room: | |
|---------------------------|--|
| Kiwi 21 PCs Centos7 | Mazur/Sass Adam.Mazur@unibas.ch, ++41 61 207 2183 Juergen.Sass@unibas.ch, ++41 61 207 2263 |
| Mango 17 PCs Centos7 | Mazur/Sass Adam.Mazur@unibas.ch, ++41 61 207 2183 Juergen.Sass@unibas.ch, ++41 61 207 2263 |
| BZ R105 23 PCs Centos7 | Mazur/Sass Adam.Mazur@unibas.ch, ++41 61 207 2183 Juergen.Sass@unibas.ch, ++41 61 207 2263 |

Practical Schedule per Group

| | Sunday | | Monday | | Tuesday | | | | Thursday | | | Friday | | Saturday |
|--------------|---------|---------|---------|-------|---------|-------|-------|-------|----------|-------|---------|---------|---------|----------|
| Start | 13:30 | 16:30 | 13:30 | 16:30 | 13:30 | 16:30 | 20:00 | 21:15 | 13:30 | 16:30 | 20:00 | 13:00 | 15:30 | 10:45 |
| End | 16:00 | 19:00 | 16:00 | 19:00 | 16:00 | 19:00 | 21:15 | 22:30 | 16:00 | 19:00 | 22:30 | 15:00 | 17:30 | 12:15 |
| G1-G4 | P1a-P1d | P2a-P2d | P3 | P4 | P5 | P6 | P9 | P10 | P7 | P8 | P12-P20 | P12-P20 | P12-P20 | P11 |
| G5-G8 | P3 | P4 | P1a-P1d | P6 | P2a-P2d | P5 | P10 | P9 | P8 | P7 | | | | |

G1-G8 groups of ~4 students, defined on Saturday, based on common level of knowledge

03/08/17