

STRUCTURAL BIOLOGY (COURSE SCHEDULE)

Monday (May 4th) Auditorium C

- 10:00-10:20 Welcome address (S. M. R.)
10:20-12:00 Structural Biology: Overview (S. M. R. / P. P.)
LUNCH
14:00-16:00 Recombinant protein expression and purification (F. F. S.)
16:30-18:00 Protein interaction analysis (B. A.)
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Tuesday (May 5th) Auditorium C

- 10:00-11:30 Protein Crystallography: Overview (D. S.)
11:45-13:00 Biomolecular NMR: Overview (A. D.)
LUNCH
14:30-16:00 **PRACTICAL 1:** DIFFRACTION DATA COLLECTION (Group I)
PRACTICAL 2: BIOMOLECULAR NMR DATA ANALYSIS (Group II)
16:00-17:30 **PRACTICAL 1:** DIFFRACTION DATA COLLECTION (Group II)
PRACTICAL 2: BIOMOLECULAR NMR DATA ANALYSIS (Group I)
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Wednesday (May 6th) Auditorium C

- 10:00-11:15 Many photons and a few proteins (D. S.)
11:30-12:45 Biological SAXS: principles and applications (B. C.)
LUNCH
14:00-14:45 How to read a Structural Biology paper (M. M.)
15:00-16:30 **PRACTICAL 3:** MODEL BUILDING (Group I)
PRACTICAL 4: JOURNAL CLUB PREPARATION (Group II)
16:30-18:00 **PRACTICAL 3:** MODEL BUILDING (Group II)
PRACTICAL 4: JOURNAL CLUB PREPARATION (Group I)
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Thursday (May 7th) Auditorium C

- 10:00-11:15 Protein Mechanics – combining NMR spectroscopy and Computational Structural Biology (A. D.)
11:30-12:45 Polyglutamine disorders: a structural perspective (S. M. R.)
LUNCH
14:15-15:30 Natural anticoagulants (P. P.)
15:30-16:45 **PRACTICAL 5:** PDB AND PYMOL (Group I)
PRACTICAL 4: JOURNAL CLUB PREPARATION (Group II)
16:45-18:00 **PRACTICAL 5:** PDB AND PYMOL (Group II)
PRACTICAL 4: JOURNAL CLUB PREPARATION (Group I)
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Friday (May 8th) Auditorium C

- 10:00-11:15 An integrated structural study on pathogenicity factors of the human pathogen *Mycoplasma genitalium* (B. C.)
11:30-13:00 Journal club (Groups Ia, Ib)
LUNCH
14:30-16:00 Journal club (Groups IIa, IIb)

Course Tutors:

Sandra de Macedo Ribeiro, PhD (Protein Crystallography Group, IBMC, Porto)
Pedro J. B. Pereira, PhD (Biomolecular Structure Group, IBMC, Porto)
Frederico Ferreira da Silva, PhD (UP³, Protein Production and Purification Unit, IBMC)
Daniele de Sanctis, PhD (ESRF, Grenoble, France)
Bárbara Calisto, PhD (ESRF, Grenoble, France)
Afonso Duarte, PhD (ITQB, Lisbon)
Bruno Miguel Almeida, PhD (Protein Crystallography Group, IBMC, Porto)
Matthew Merski, PhD (Protein Crystallography Group, IBMC, Porto)
Joana Fraga, MSc (Protein Crystallography Group, IBMC, Porto)
Tatiana Barros Cereija, MSc (Biomolecular Structure Group, IBMC, Porto)