



ΠΑΝΕΠΙΣΤΗΜΙΟ
ΠΑΤΡΩΝ
UNIVERSITY OF PATRAS



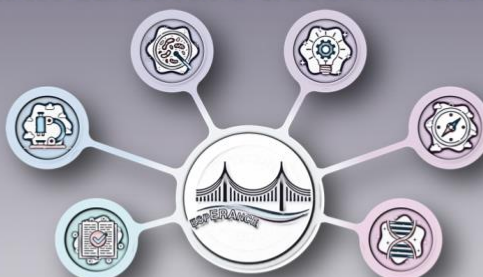
The "ESPERANCE" project

PRACTICAL COURSE

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NMR data analysis – NMR Dynamics & NMR structure determination



09-19 September 2024



era-esperance.eu

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Training program

Day 1		Day 1 (Monday 9/09)
10:00	10:30	Introduction
10:30	11:30	Practical Aspects of NMR Spectroscopy - I
11:45	12:00	Coffee break
12:00	14:00	2-, 3-Dimensional NMR
14:00	15:00	Lunch break
15:00	16:15	NMR Pulse sequences for Protein NMR: theory, practical set-up and use
16:30	18:00	Practical session (Hands on) in NMR spectrometer



Day 2		Day 2 (Tuesday 10/09)
10:00	12:00	NMR Data processing
12:00	12:15	Coffee break
12:15	14:00	Protein Assignment Theory & Hints
14:00	15:00	Lunch break
15:00	18:00	CARA software – Introduction Part-I
Day 3		Day 3 (Wednesday 11/09)
10:00	11:00	Cara software - Introduction Part-II
11:10	12:00	Backbone Protein Assignment -A (Part I)
12:00	12:30	Coffee break
12:30	14:00	Backbone Protein Assignment-A (Part II)
14:00	15:00	Lunch break
15:00	18:00	Backbone Protein Assignment- B (Part I)
Day 4		Day 4 (Thursday 12/09)
10:00	12:00	Backbone Protein Assignment-B (Part II)
12:00	12:15	Coffee break
12:15	14:00	Backbone Protein Assignment -C (Part I)
14:00	15:00	Lunch break
15:00	18:00	Backbone Protein Assignment-C (Part II)
Day 5		Day 5 (Friday 13/09)
10:00	12:00	Protein Assignment (TOCSY spectra; Part I)
12:00	12:15	Coffee break
12:15	14:00	Protein Assignment (TOCSY spectra; Part II)
14:00	15:00	Lunch break
15:00	16:15	Protein Assignment (NOESY spectra; Part I)
16:30	18:00	Protein Assignment (NOESY spectra; Part II)

Day 6		Day 6 (Monday 16/09)
10:00	12:00	NMR relaxation/Dynamics & residual dipolar couplings – Theory & Pulse sequences
12:00	12:30	Coffee break
12:30	14:00	NMR Dynamics Practical session-I: Set up ¹⁵ N-relaxation experiments on NMR
14:00	15:00	Lunch break
15:00	16:15	NMR Dynamics Practical session-II: Data processing for Protein Dynamics
16:30	18:00	NMR Dynamics Practical session -II Dynamic Center-I
Day 7		Day 7 (Tuesday 17/09)
10:00	12:00	NMR view on exchange - Applications
12:00	12:30	Coffee break
12:30	14:00	Ligand binding studies - Part-I
14:00	15:00	Lunch break
15:00	16:15	Ligand binding, isotope filters (edited/filtered experiments)
16:30	18:00	Practical session (Hands on) – Experimental set up on NMR
Day 8		Day 8 (Wednesday 18/09)
10:00	12:00	Ligand binding studies - Part-II
12:00	12:30	Coffee break
12:30	14:00	Practical session - Tutorial
14:00	15:00	Lunch break
15:00	16:15	Practical session - Tutorial
16:30	18:00	Practical session - Tutorial
Day 9		Day 9 (Thursday 19/09)
10:00	12:00	NMR structure calculation-I
12:00	12:30	Coffee break
12:30	14:00	NMR structure calculation-II
14:00	15:00	Lunch break
15:00	16:15	Practical session-I: NMR structure calculation
16:30	18:00	Practical session-II: NMR structure calculation

