

Hands-On NMR Spectroscopy for Metabolic Profiling

24th-28th of April 2023

We are excited to be able to run again our course for the first time since 2020. We are looking forward to welcoming you in our new facility in Hammersmith Hospital where we will be delighted to share knowledge and ideas on NMR based metabolic profiling.

COURSE OBJECTIVE

This week-long course will guide the participant through the whole NMR based Metabolic Phenotyping pipeline. It covers NMR theory, study design, sample preparation, NMR experiments for metabolic phenotyping, and hands-on setup of an NMR profiling experiment as well as metabolite identification, data analysis and structural data interpretation. The course involves class-based lessons to set up the concepts but also wet lab practice, 1D and 2D experimental set-up in front of the NMR spectrometer, and practical workshops for data analysis, metabolite identification and experimental design.

The number of participants is limited to ensure maximum interaction with lecturers and trainers.

COURSE SCHEDULE

- <u>Day 1:</u> NMR-based Metabolomic Profiling Applications, NMR Theory, Sample Preparation workshop and Practical Set-up.
- <u>Day 2:</u> NMR-based Metabolomic Study Workflow, NMR Experiment Interpretation and Experimental Design for a Metabolomic Study.
- Day 3: Introduction to Chemometrics and Data Analysis.
- <u>Day 4:</u> Metabolite Identification Strategies, Statistical Tools for Data Analysis and Metabolite ID, Analytical Tools for Metabolite ID, 2D NMR Experimental Set-up and Interpretation.
- <u>Day 5:</u> Targeted experimental approaches, hands-on NMR Metabolomics Experimental Design.

COURSE LOCATION

Burlington Danes Building.
Imperial College, Hammersmith Hospital Campus.
Du Cane Road
W12 ONN London (UK)

COURSE WEBSITE

<u>Hands-on NMR Spectroscopy for Metabolic Profiling | Administration and support services |</u>
Imperial College London