

# 7<sup>th</sup> CERMAX practical course on basic NMR

Oeiras, 24<sup>th</sup> – 27<sup>th</sup> June, 2014

## Program

### 24<sup>th</sup> of June

9.30 – Introduction to NMR spectroscopy.	<b>PL (Room 3.20)</b>
10.30 – Instrumental aspects of the spectrometer /Rules for spectrometer use.	<b>HM (Room 3.20)</b>
11.00 – <i>Break</i>	
11.30 – Introduction to TopSpin software.	<b>HM (Room 3.20)</b>
12.15 – 1D Acquisition and processing	<b>PL (Room 3.20)</b>
13.00 – <i>Lunch break</i>	
14.00 – NMR and Metabolomics/ Quantitative NMR	<b>GG (Room 3.20)</b>
15.30 – <i>Break</i>	
15.50 – Spectrometer Guided tour and sample preparation	<b>HM (NMR Lab)</b>

### 25<sup>th</sup> of June

9.30 – Introduction to 2D NMR spectroscopy (Homonuclear correlation)	<b>PL (Room 3.20)</b>
10.15 – Heteronuclear correlation for small molecule and protein assignment	<b>MM (Room 3.20)</b>
11.00 – <i>Break</i>	
11.15 – Practical session I	<b>PL, HM, MM, IS</b>
Acquisition (1D, presat, p90, APT)	Processing and analyzing 1D <b>(NMR Spect and WS)</b>
13.30 – <i>Lunch break</i>	
14.30 – Practical sessions I (cont)	<b>PL, HM, MM, IS</b>

### 26<sup>th</sup> of June

9.30 – The Nuclear Overhauser Effect	<b>ROL (Room 3.20)</b>
10.15 – The paramagnetic effect and metalloproteins	<b>ROL (Room 3.20)</b>
10.45 – <i>Break</i>	
11.15 – Practical session II	<b>PL, HM, MM, IS</b>
Acquisition (COSY, HSQC)	Processing and analyzing 2D <b>(NMR Spect and WS)</b>
13.30 – <i>Lunch break</i>	
14.30 – Practical sessions II (cont)	<b>PL, HM, MM, IS</b>

### 27<sup>th</sup> of June

9.30 – Assignment strategies in small molecules (tutorial and exercises)	<b>PL (Room 3.20)</b>
10.45 – <i>Break</i>	
11.15 – Assignment strategies (cont)	<b>PL (Room 3.20)</b>
13.00 – <i>Lunch break</i>	
14.00 – Practical session III	<b>PL, HM</b>
Acquisition exercises <b>(NMR Spect and WS)</b>	

### Faculty:

Gonçalo Graça  
Helena Matias  
Ivo Saraiva  
Manolis Matzapetakis  
Pedro Lamosa  
Ricardo Louro