



UNIVERSITY OF AVEIRO
DEPARTMENT OF CHEMISTRY & LAQV & CESAM

PRACTICAL COURSES ON MASS SPECTROMETRY

FROM THE BASICS TO LC-MS DATA ACQUISITION AND INTERPRETATION



4TH – 6TH FEBRUARY 2019



Thermo UNICAM
SCIENTIFIC Sistemas Analíticos, Lda.



COURSE GOALS

The course is intended for graduate students, postgraduate students and professionals who wish to learn about basic mass spectrometry and are willing to gather more information on modern analytical tools. This is a three-day course that includes hands-on practical work in different mass spectrometers (MS and LC-MS), lectures, data analysis and mass spectra interpretation. Real-life practical exercises will provide fundamental skills to understand fragmentation pathways and evaluate the quality of mass spectra.

This is a valuable opportunity to learn the fundamentals and to keep up with the latest technology.

PARTICIPANTS

Graduate students and researchers interested in working with mass spectrometry in general and in the field of 'omics' (proteomics, metabolomics and lipidomics) in particular. No previous experience in mass spectrometry is required. Limited to 15 participants (minimum of 10).

TEAM

Pedro Domingues, *Professor*
Rosário Domingues, *Professor*
Elisabete Maciel, *Researcher*
Eliana Alves, *Post-Doc*
Tânia Melo, *Post-Doc*
Cristina Barros, *Technician*
Daniel Ettlin, *CEO Unicam*

REGISTRATION

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|---------------------|-------|
| Fees: Professionals | 430 € |
| RNEM Members | 350 € |
| Graduate Students* | 280 € |

*PhD students and Post-docs

Deadline for payment: January 18th 2019

MONDAY, FEBRUARY 4TH

- 10:00 Opening
- 10:10 **Lecture: Basics on mass spectrometry and instrumentation**
- 12:30 Lunch
- 14:00 **Visit to mass spectrometer facilities (ion trap, orbitrap)**
- 15:00 **Lecture: Interpretation of MS spectra: what do you need to know?**
- 16:00 Coffee break
- 16:30 **Lecture: Interpretation of MS/MS spectra**

TUESDAY, FEBRUARY 5TH

- 09:00 **Sample preparation for MS analysis: what do you need to know?**
- 10:00 **Hands-on practice: real-experiments in mass spectrometers**
- 11:00 **Hands-on practice: MS data acquisition**
- 12:15 Lunch
- 14:00 **Hands-on practice: MS data acquisition**
- 16:15 Coffee break
- 16:30 **Hands-on practice: interpretation of mass spectra**

WEDNESDAY, FEBRUARY 6TH

- 09:00 **Hands-on practice: presentation and discussion of results**
- 10:45 Coffee break
- 11:00 **Invited lecture: Dr. Daniel Ettlin (Unicam)**
- 12:00 **Invited lecture: Dr. André Silva (FCUP)**
- 13:00 **Concluding remarks and closing**

For registration and further information, please contact:

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