Target Audience
Microbiologists, basic researchers, biologists, medical doctors and laboratory personnel

Faculty Members
Silvia Angeletti, Rome, Italy
Jean Armengaud, Paris, France
Elena De Carolis, Rome, Italy
Gilbert Greub, Lausanne, Switzerland
Didier Hocquet, Besançon, France
Hugo López Fernández, Vigo, Spain
James O'Connor, Cork, Ireland
Marina Oviaño, Coruña, Spain
Belén Rodríguez-Sánchez, Madrid, Spain
Jean-Marc Rolain, Marseilles, France
Linda Veloo, Groningen, The Netherlands
Stefan Zimmerman, Heidelberg, Germany

Course Objectives
This course aims to provide participants with the tools to do their best with their MALDI instruments: methodology for new MALDI applications and analytical tools for spectra analysis. The attendees will have the opportunity to interact with leading researchers in the field of MALDI-TOF mass-spectrometry applications in clinical microbiology and discuss recent breakthroughs and new applications. The workshop will include theoretical presentations and practical training, and will represent an excellent chance for networking between clinical microbiologists, basic researchers, MALDI experts, bioinformaticians and others. The melting pot of scientists from different backgrounds expected to meet during the course are highly likely to become a think-tank for novel and impacting applications of mass spectrometry in the field of clinical microbiology.
Course Programme

Monday 19 October 2020
08:00 Registration

Session 1
09:00 Welcome and introduction to the Course
Belen Rodríguez-Sanchez
09:30 Mass Spectrometry: new diagnostic tools for the near future
Jean Armengaud
10:15 Review of main technologies and future trends
Stefan Zimmerman

11:00 Coffee break

Session 2
11:30 New [and old] applications of MALDI-TOF in Clinical Microbiology
Silvio Angiuletto
12:15 Dealing with protein spectra from MALDI-TOF: how to analyze them
Hugo López Fernández
13:00 Lunch

Practical Session 1 (Max. 20 students per parallel session)
14:00 Working with MALDI-TOF I: sample preparation and spectra acquisition
Belen Rodríguez-Sanchez, Marina Oviaño
14:00 Spectra analysis I
Hugo López Fernández
16:15 Coffee break

Practical Session 2 (Max. 20 students per parallel session)
16:45 Spectra analysis I
Hugo López Fernández
16:45 Working with MALDI-TOF I: sample preparation and spectra acquisition
Belen Rodríguez-Sanchez, Marina Oviaño
19:00 End of day

Tuesday 20 October 2020
09:15 Registration

Session 3
09:30 MALDI-TOF for the identification of anaerobes
Linda Velos
10:15 MALDI-TOF identification from positive blood culture and direct identification from urine
Gilbert Greub
11:00 Coffee break

Session 4
11:30 Identification of filamentous fungi and yeasts with MALDI-TOF
Elena De Carolis
12:15 Identification of mycobacteria isolates with MALDI-TOF
James O’Connor
13:00 Lunch

Practical Session 3 (Max. 20 students per parallel session)
14:00 Working with MALDI-TOF II: detection of antibiotic resistance mechanisms
Belen Rodríguez-Sanchez, Marina Oviaño
14:00 Spectra analysis II
[Hugo López Fernández]
15:30 Coffee break

Practical Session 4 (Max. 20 students per parallel session)
16:00 Spectra analysis II
[Hugo López Fernández]
16:00 Working with MALDI-TOF II: detection of antibiotic resistance mechanisms
Belen Rodríguez-Sanchez, Marina Oviaño
18:00 Social event and dinner

Wednesday 21 October 2020
9:00 Registration

Session 5
09:15 Review of the previous talks
Belen Rodríguez-Sánchez
09:30 Detection of antibiotic resistance mechanisms with MALDI-TOF: Review and future applications
Marina Oviaño
10:15 Protein mass spectra data analysis for clinical biomarker discovery
11:00 Coffee break

Session 6
11:30 Application of MALDI-TOF for bacterial typing
Didier Hucquet
12:15 Combining MALDI in the workflow (with MDx. NGS etc)
Jean-Marc Rolain
13:00 Conclusions and farewell – 13:15
Belen Rodríguez-Sanchez

Organisation

Course Venue
Hospital Materno-Infantil Gregorio Marañón
O’Donnell 48-50
28009 Madrid, Spain

Registration Procedure
Register on the ESCMID website before 20 February 2020.

Registration Fee
EUR 500 for ESCMID members
EUR 750 for all others

The registration fee includes access to the theoretical and practical sessions, meals and coffee breaks, the social event and dinner. Travel and accommodation expenses are not included.

Attendance Grants
ESCMID provides a number of attendance grants for ESCMID “young scientist members”. The grant covers the registration fee, but not travel or accommodation costs. Please apply via the ESCMID website at www.escmid.org/education before 31 December 2019. Applicants will be informed about their acceptance by 14 January 2020.

CME Accreditation
The organiser of the course will apply for European CME accreditation through EACCME.