



Target Audience

35 – 50 clinical microbiologists (medical, clinical, forensics including trainees), and other professionals working with mass-spectrometry for clinical microbiology applications.

Confirmed Faculty Members

Dirk Bumann, Basel, Switzerland
Ben Collins, Zurich, Switzerland
Antony Croxatto, Lausanne, Switzerland
Adrian Egli, Basel, Switzerland
Victoria Girard, Lyon, France
Gilbert Greub, Lausanne, Switzerland
Hajo Grundmann, Freiburg, Germany
Gillet Ludovic, Zurich, Switzerland
Jacob Moran-Gilad, Beer-Sheva, Israel
Elisabeth Nagy, Szeged, Hungary
Michael Oberle, Aarau, Switzerland
Claus Ostergaard, Lillebaelt, Danmark
Renaud Piarroux, Marseille, France
Kristina Rizzardi, Solna, Sweden
Belén Rodríguez-Sánchez, Madrid, Spain
Katleen Vranckx, Gent, Belgium

Contact

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Supporters

- bioMérieux
- Applied Maths
- Bruker

Scientific picture outside: Mass spectra profile of *E. Coli*



ESCMID Postgraduate Education Course

Capacity-building Workshop: Applications of MALDI-TOF Mass-Spectrometry in Clinical Microbiology

Basel, Switzerland
13 – 15 March 2017

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Capacity-building Workshop: Applications of MALDI-TOF Mass-Spectrometry in Clinical Microbiology

Organizers

- ESCMID Study Group for Epidemiological Markers [ESGEM]
- ESCMID Study Group for Molecular Diagnostics [ESGMD]
- Clinical Microbiology, University Hospital Basel, Basel, Switzerland

Course Coordinators

- Adrian Egli, Basel, Switzerland
- Gilbert Greub, Lausanne, Switzerland
- Hajo Grundmann, Freiburg, Germany
- Jacob Moran-Gilad, Beer-Sheva, Israel
- Elisabeth Nagy, Szeged, Hungary
- John W. A. Rossen, Groningen, Netherlands

Course Objectives

The impact of mass-spectrometry-based identification has been profound on the daily workflow of modern clinical microbiology laboratories due to a significant reduction in time-to-identification of causing pathogens. Recently, the field is rapidly moving beyond identification towards antibiotic resistance testing, direct specimen exploration and typing. This course aims to boost the knowledge of mass-spectrometry by allowing attendees to join leading scientists in the field of MALDI-TOF mass-spectrometry applications in clinical microbiology. Most recent breakthroughs and current applications will be shown. Moreover, the course aims to create networks between clinical microbiologists, basic researchers and allied professions and build capacity facilitating the multiple applications in this multidisciplinary field across Europe.

Course Programme

Monday, 13 March 2017

08:00 – 09:00	Registration
Session 1 09:00 – 09:30	Welcome and introduction of the Study Groups. <i>Adrian Egli, Gilbert Greub, Hajo Grundmann, Jacob Moran-Gilad</i>
09:30 – 10:15	Overview and introduction to MALDI-TOF mass-spectrometry – identification and beyond. <i>Adrian Egli</i>
10:15 – 11:00	MALDI-TOF MS directly from positive blood culture – rapid identification protocols and impact on patients. <i>Gilbert Greub</i>
11:00 – 11:30	Coffee break
Session 2 11:30 – 12:15	MALDI-TOF MS to identify rare pathogenic bacteria in the routine diagnostics. <i>To be confirmed</i>
12:15 – 13:00	Identification of anaerobes using MALDI-TOF MS. <i>Elisabeth Nagy</i>
13:00 – 14:00	Lunch
Session 3 14:00 – 14:45	MALDI-TOF directly from urine samples as a tool to rapidly detect urinary tract infection. <i>To be confirmed</i>
14:45 – 15:30	Mycobacteria non-tuberculosis database – must have or nice to have? <i>Belén Rodriguez-Sanchez</i>
15:30 – 16:15	Current challenges with fungal identification using MALDI-TOF – how to improve? <i>Renaud Piarroux</i>
16:15 – 16:45	Coffee break
Session 4 16:45 – 18:00 16:45 – 17:15	Sponsored session on molecular diagnostics VITEK MS: identification of critical pathogens and beyond. <i>Victoria Girard</i> [BioMérieux]
17:15 – 17:45	Advanced analysis methods can improve the typing possibilities using MALDI-TOF. <i>Katleen Vranckx</i> [Applied Maths]

Tuesday, 14 March 2017

08:00 – 08:45	Registration
Session 5 08:45 – 09:30	MALDI-TOF-based subtyping as a tool for outbreak investigation – an overview. <i>To be confirmed</i>
09:30 – 10:15	MRSA clonal complex subtyping using MALDI-TOF. <i>Claus Ostergaard</i>
10:15 – 11:00	Enterobacteriaceae subtyping using MALDI-TOF. <i>Michael Oberle</i>
11:00 – 11:30	Coffee break
Session 6 11:30 – 12:15	<i>Clostridium difficile</i> subtyping using MALDI-TOF MS. <i>Kristina Rizzardi</i>
12:15 – 13:00	Quality control and technical reproducibility using MALDI-TOF. <i>Antony Croxatto</i>
13:00 – 14:00	Lunch
Session 7 14:00 – 14:45	Mass-spectrometry technologies – more than just MALDI-TOF MS. <i>Gillet Ludovic</i>
14:45 – 15:30	Porin detection using SWATH MS. <i>Dirk Bumann</i>
15:30 – 16:00	Coffee break
Session 8 16:00 – 16:45	<i>Mycobacterium tuberculosis</i> protein expression profiling using SWATH MS. <i>Ben Collins</i>
16:45 – 17:30	Bioinformatics to analysis – MS data in clinical microbiology. <i>To be confirmed</i>
19:00 – 22:00	Social programme and dinner

Wednesday, 15 March 2017

08:00 – 08:45	Registration
Session 10 08:45 – 09:30	Antibiotic resistance testing using MALDI-TOF – overview of methods and feasibility for the routine laboratory. <i>To be confirmed</i>
09:30 – 10:15	AMR with MALDI-TOF MS – what is in the pipeline? <i>To be confirmed</i>
10:15 – 10:45	Coffee break
Session 11 10:45 – 11:30	Educational quiz: presentation and discussion of MS challenges in clinical routine. <i>Gilbert Greub</i>
11:30 – 12:15	Areas of uncertainties by using MALDI-TOF and problems to solve. <i>Adrian Egli</i>
12:15 – 13:00	Open panel discussion: common initiatives, projects, protocols. <i>Adrian Egli, Gilbert Greub, Hajo Grundmann, Jacob Moran-Gilad, Elisabeth Nagy</i>
13:00 – 13:15	Concluding remarks & farewell. <i>Adrian Egli, Gilbert Greub, Hajo Grundmann, Jacob Moran-Gilad</i>



Organization

Course Venue University Hospital Basel Petersgraben 4 4031 Basel, Switzerland www.unispital-basel.ch
Registration Procedure Register now online on the ESCMID website at www.escmid.org/education . Registration deadline is 3 February 2017.
Registration Fee EUR 500 for ESCMID members (Full Membership/Young Scientist Membership) EUR 750 for non-ESCMID members The fee includes the course, tea and coffee during the course, lunch, dinner and the social event (including dinner). Travel and accommodation is not included.
Attendance Grants ESCMID provides a number of attendance grants for ESCMID “young scientist members”. The grant covers the registration fee. Travel and accommodation is not included. Please apply via the ESCMID website at www.escmid.org/education before 4 January 2017. Applicants will be informed about their acceptance by 18 January 2017.
CME Accreditation The organizers of the course will apply for European CME accreditation through EACCME.