Target Audience
Up to 72 clinical microbiologists and other professionals working in diagnostics and interested in MALDI-TOF, genomics, automation, molecular diagnostics and others new innovative tools.

Faculty Members
Sebastien Asby, Lausanne, Switzerland
Claire Bertelli, Lausanne, Switzerland
Alexandre Dalpke, Heidelberg, Germany
Adrian Egli, Basel, Switzerland
Gilbert Greub, Lausanne, Switzerland
Philippe Hauser, Lausanne, Switzerland
Geneviève Hery Arnaud, Brest, France
Katia Jaton, Lausanne, Switzerland
Frédéric Lamoth, Lausanne, Switzerland
Colin Mackenzie, Düsseldorf, Germany
Surbhi Malhotra-Kumar, Antwerp, Belgium
Jacob Moran-Gilad, Beit Kama, Israel
Elisabeth Nagy, Szeged, Hungary
Immaculeh Nahimana, Lausanne, Switzerland
Onya Opota, Lausanne, Switzerland
Robin Patel, Rochester, MN, United States
Trestan Pillonel, Lausanne, Switzerland
Laurent Poch, Fribourg, Switzerland
Guy Prod’hom, Lausanne, Switzerland
Manjik Raymackers, Hasselt, Belgium
Belen Rodriguez-Sanchez, Madrid, Spain
John Rossen, Groningen, Netherlands
Jacques Schrenzel, Geneva, Switzerland
Katja Seme, Ljubljana, Slovenia
Florian Tagini, Lausanne, Switzerland
Kate Templeton, Edinburgh, United Kingdom

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Course Objectives
To further improve patients care, it is crucial to continue to develop new tools providing faster results, with a broader diversity of pathogenic agents with very high sensitivity and specificity. To reach these goals, it is important to be aware of the new innovative methods that have recently been developed and to exchange knowledge and ideas on the future of diagnostic microbiology, including the emerging indications of metagenomics for non-infectious diseases such as obesity and asthma. This course thus aims to provide a unique platform to learn about the strengths and limitations of new diagnostic tools including MALDI-TOF, molecular diagnosis, genomics and metagenomics, as well as novel innovative techniques such as nanoplasmonic sensors and atomic force microscopy. The course also offers a unique opportunity for participants to gain practical experience during the twelve different practicals led by local microbiologists.
Tuesday, 25 September 2018
09:00 Introduction. Gilbert Greub, Jacob Moran-Gilad, Katia Jaton
09:15 Molecular diagnosis. Marijke Raymaekers
09:45 Multiplex PCR. Colin Mackenzie
10:15 Coffee break
11:00 Laboratory diagnosis of viral infections. Katja Seme
11:30 Automated molecular testing of infectious diseases. Alexander Dolphe
12:00 The future of diagnostic microbiology. Gilbert Greub
12:30 Lunch
14:00 Practicals (parallel sessions)
17:45 End

Wednesday, 26 September 2018
09:15 Automation in bacteriology. Antony Croxatto
09:45 Etiological diagnosis of blood culture. Gilbert Greub
10:15 Coffee break
11:00 Mycobacteria: molecular diagnosis. Belen Rodriguez-Sanchez
11:30 Laboratory diagnosis of anaerobic infections. Elisabeth Nagy
12:00 Carbapenemases: how to detect them? Laurent Poiré
12:30 Lunch
14:00 Practicals (parallel sessions)
16:00 Social programme
17:30 End

Thursday, 27 September 2018
09:15 Genomics: clinical applications. Surbhi Malhotra-Kumar
09:45 Genomics: data analyses and quality control. Claire Bertelli
10:15 Coffee break
11:00 Metagenomics for clinical microbiology. Jacques Schrenzel
11:30 Gut metagenomics: beyond clinical microbiology. Florian Tagini
12:00 Metagenomics application in patients with cystic fibrosis. Geneviève Hery Arnaud
12:30 Lunch
14:00 Practicals [parallel sessions]
17:45 End

Friday, 28 September 2018
09:15 MALDI-TOF Mass spectrometry. Robin Patel
09:45 MALDI-TOF and typing. Adrian Egli
10:15 Coffee break
11:00 AB susceptibility testing: new techniques including atomic force microscopy. Antony Croxatto
11:30 Diagnosis of infections due to respiratory tract viruses. Kate Templeton
12:00 Open panel discussion. Katia Jaton, Adrian Egli, Gilbert Greub, Jacob Moran-Gilad, Marijke Raymaekers, Kate Templeton
12:30 Lunch
14:00 Practicals [parallel sessions]
16:00 Final plenary lecture: molecular and genomic epidemiology. Jacob Moran-Gilad
16:30 Concluding remarks and farewell. Gilbert Greub, Jacob Moran-Gilad

Practicals
- Bacterial phenotypes and automation. Antony Croxatto
- Rapid tests. Onya Opota
- MALDI-TOF: classical identification of bacteria and fungi. Frédéric Lamoth
- MALDI-TOF: application on blood culture. Alix Coote
- Etiological diagnosis of pneumonia. Florian Tagini
- Diagnosis of urinary tract infections. Immocole Nwahmo
- Parasitology. Guy Prod'Hom
- Morphological identification of fungi. Philippe Hauser
- How to sequence: fragment analyser and MiSeq. Sebastien Kübel
- Molecular diagnosis. Katia Jaton
- Genomics analyses: virulence factors & typing. Trestan Pillonel
- 16SrRNA amplicons & shotgun metagenomics. Claire Bertelli

Course Venue
CHUV
Rue du Bugnon 46
Auditoire Alexandre Yersin
1011 Lausanne, Switzerland

Registration Procedure
Register now online on the ESCMID website at www.escmid.org/education.

Registration Deadline
Registration deadline is 17 August 2018.

Registration Fee
EUR 600 for ESCMID members
EUR 750 for all others

The registration fee includes the course, coffee/tea breaks, lunches, dinner on Thursday evening and the social event. Travel and accommodation are 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 are not included. Please apply via the ESCMID website at www.escmid.org/registration before 20 July 2018. Applicants will be informed about their acceptance by 10 August 2018.

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