Contact

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Target Audience
24 – 32 residents, pre-doc students, young post-doc students and staff working in the following fields: clinical microbiology, medical microbiology, biology or any other related scientific area.

Confirmed Faculty Members
- Jesús Agüero, Santander, Spain
- Joseba Bikandi, Bilbao, Spain
- Isabel Cuesta, Madrid, Spain
- Giuseppe D’Auria, Valencia, Spain
- Fernando de la Cruz, Santander, Spain
- Edward Feil, Bath, United Kingdom
- Juan María García-Lobo, Santander, Spain
- Mette V. Larsen, Copenhagen, Denmark
- Luis Martínez Martínez, Santander, Spain
- Jesús Mingorance, Madrid, Spain
- Alain Ocampo-Sosa, Santander, Spain
- María Cruz Rodríguez, Santander, Spain
- Luis Serrano, Barcelona, Spain
- Ignacio Varela, Santander, Spain
- Jordi Vila, Barcelona, Spain

ESCMID Postgraduate
Technical Workshop
Bioinformatic Tools
in Clinical Microbiology

Santander, Spain
16 – 19 September 2013

Organisers
- University Hospital Marqués de Valdecilla (HUMV)
- University of Cantabria (UC)

Course Coordinators
- Juan María García-Lobo, Santander, Spain
- Luis Martínez-Martínez, Santander, Spain

Course Objectives
This course provides participants with an introductory/medium level practical approach to the use of bioinformatic tools in microbiology. Theoretical and practical sessions will cover different aspects of applied bioinformatic tools.
Course Programme

Monday, 16 September 2013
09:30 Registration
15:00 Opening
15:30 Introduction: the impact of DNA sequencing in microbiology
16:15 Repeated sequences in bacteria
17:15 Welcome reception

Tuesday, 17 September 2013
09:30 Design of PCR: single and multiplex approaches
10:15 Sequence-based identification of microorganisms
11:00 Break
11:30 Molecular typing of microorganisms: MLST and other approaches
12:15 Principles and methods of massive sequencing
13:00 Lunch
14:30 Practicals: Session I
• Genes and genomes retrieval from databases
• The "In Silico Simulation" webpage
• PC-sized bioinformatics
16:30 Pathogenomics: detection of virulence traits by massive sequencing
20:30 Course dinner

Wednesday, 18 September 2013
09:30 Plasmid genomics
10:15 Resistomics: detection of resistance genes by massive sequencing
11:00 Break
11:30 Epidenomics: application of massive sequencing for outbreak characterisation
12:15 Metagenomics and microbiomes
13:00 Lunch
14:30 Practicals: Session II
• Comparison of whole genomes
• Annotation software
• Artemis
16:30 Bacterial transcriptomics

Thursday, 19 September 2013
09:30 Bioinformatic resources and public health
10:15 Practicals: Session III
• De novo assembly
• Aligners
• SRA: Shot Reads Archives
12:30 Evaluation
12:45 Course picture
13:00 Closing

Organisation

Course Venue
University Hospital Marqués de Valdecilla
Continuing Education Facilities
Pabellón 16
Avda. Valdecilla s/n
Santander, Spain

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 2 August 2013. Applicants will be informed about their acceptance by 16 August 2013.

Registration Procedure
The registration form can be found on the ESCMID website at www.escmid.org/education. Please return it to the course administrative secretariat by 2 August 2013.

Registration Fee
EUR 600 for ESCMID members or members of the following societies: Sociedad Española de Enfermedades Infecciosas y Microbiología Clínica (Spanish Society of Infectious Diseases and Clinical Microbiology) and Microbiology Societies associated to FEMS
EUR 750 for all others

The fee includes the scientific sessions and practical computer sessions (one computer per two attendees), lunch at the course venue for three days (Tuesday, Wednesday, Thursday) and the official dinner of the course. Accommodation and travel expenses are not included.

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