Target Audience
25 – 35 early stage researchers, young clinical microbiologists, and infectious disease specialists involved in omic research. All attendees will be asked to submit an abstract and will be given the opportunity of a short presentation in order to interact with the invited faculty on their topics of work.

Faculty Members
Chiara Batini, Leicester, United Kingdom
Sandra Beleza, Leicester, United Kingdom
Matt Blades, Leicester, United Kingdom
Matthijs Brouwer, Amsterdam, Netherlands
Mathew Diggle, Nottingham, United Kingdom
Britta Engelhardt, Berne, Switzerland
Julia Krämer, Berne, Switzerland
Jose Labarere, Grenoble, France
Stephen Leib, Berne, Switzerland
Marco Rinaldo Oggioni, Leicester, United Kingdom
Silke Peter, Tübingen, Germany
Alban Ramette, Berne, Switzerland
John Rossen, Groningen, Netherlands
Olivier Schären, Berne, Switzerland
Jean Paul Stahl, Grenoble, France

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Administrative Secretariat
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Scientific picture: Analysis of microbial and host omics. © Marco Rinaldo Oggioni
Course Programme

**Wednesday, 6 September 2017**

17:00  Introduction/presentation of the course and attendees’ expectations.  
Jean Paul Stahl, Marco Rinaldo Oggioni  
17:30  Experimental infection models that include omic approaches. Stephen Leib, Alban Ramette  
18:30  Immune surveillance in the central nervous system? Britta Engelhardt  
20:00  Gala dinner

**Thursday, 7 September 2017**

09:00  Omics in the hospital. John Rossen  
09:45  Standardization of genomics for diagnostic applications. Mathew Diggle  
10:30  Molecular drug susceptibility testing. Silke Peter  
11:00  Break  
11:15  Presentations from course attendees  
12:30  Lunch  
14:00  The human microbiota: the farmer’s nasal microbiota. Julia Krämer  
14:30  Intestinal microbiota in isogenic and isobiotic mouse models. Olivier Schären  
15:00  Population dynamics during bacterial infection of the host. Marco Rinaldo Oggioni  
15:45  Break  
16:15  Statistical challenges and approaches for the analysis of omic data. Jose Labarère  
17:00  Rules for analysis of omic data. Matt Blades  
17:45  Presentations from course attendees  
20:00  Dinner

**Friday, 8 September 2017**

09:00  Human genome data. Chiara Batini  
10:00  Break  
10:30  Using human GWAS data to interrogate complex traits. Sandra Beleza  
11:30  Host and pathogen genome wide association studies. Matthijs Brouwer  
12:30  Evaluation of the seminar and closing remarks. Jean Paul Stahl, Marco Oggioni  
13:00  Departures

Organization

ESCMID Postgraduate Education Course

Omics of Host and Pathogens During Infections

**Course Description**

This ESGIB course aims at providing high-quality interdisciplinary training on the technological and bioinformatic skills necessary for the use of state-of-the-art “omic” tools to rapidly translate disease research into improved clinical healthcare. The rapid advancements in these highly specialized technologies present a particular challenge which early stage researchers will need to face at their work. The course objective is to provide an update and overview of the available “omic” technologies and approaches to PhD students, postdocs and early stage clinicians who are involved in laboratory and clinical work. Consistent with this intent, the course will address research topics, diagnostic development, and most importantly will cover the essential steps in standardizing and benchmarking next-generation genomic technologies for diagnostic applications. All attendees will be asked to submit an abstract and will be given the opportunity of a short presentation. In addition to the planned seminars there will be interactive contact with the invited faculty on their topics of work.

Organizer

• ESCMID Study Group for Infectious Diseases of the Brain – ESGIB  
• ESCMID Study Group for Genomic and Molecular Diagnostics – ESGMD  
• Medical University of Grenoble, Grenoble, France

Supporter

• University of Berne, Berne, Switzerland

Course Coordinators

• Marco Rinaldo Oggioni, Leicester, United Kingdom  
• Jean Paul Stahl, Grenoble, France

Course Venue

Medical University of Grenoble  
Hospital Center University of Grenoble  
Avenue des Maquis du Grésivaudan  
38700 La Tronche, France

Registration Procedure

Register now online on the ESCMID website at www.escmid.org/education. Registration deadline is 11 August 2017.

Registration Fee

EUR 300 for ESCMID members  
(Full Membership/Young Scientist Membership)  
EUR 500 for all others

The registration fee includes the course, meals at the course venue and the gala dinner. Accommodation and travel are not included.

Attendance Grants

ESCMID provides a number of attendance grants for ESCMID “young scientist members”. The grant covers the registration fee. Accommodation and travel are not included. Please apply via the ESCMID website at www.escmid.org/education before 16 June 2017. Applicants will be informed about their acceptance by 30 June 2017.

CME Accreditation

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