Target Audience
Up to 200 technicians, [molecular] biologists, medical microbiologists, informatica\ns, hospital infection control experts, infectious disease epidemiologists and public health specialists with an interest in genomics-based molecular diagnostics. The practicals are limited to 36 attendants.

Faculty Members
Claire Bertelli, Lausanne, Switzerland
Monika Chlebickicz, Groningen, Netherlands
Natacha Couto, Groningen, Netherlands
Nicole Fischer, Hamburg, Germany
EelcoFranz, Bilthoven, Netherlands
Alexander W. Friedrich, Groningen, Netherlands
Jingjuan Fu, Groningen, Netherlands
Silvia Garcia Cobos, Groningen, Netherlands
Stefan Green, Chicago, IL, United States
Rene Hendriksen, Lyngby, Denmark
Jacob Moran-Gilad, Beer Sheva, Israel
Silke Peter, Tübingen, Germany
Erwin Raangs, Groningen, Netherlands
Sandra Reuter, Freiburg, Germany
Sigríd Rosema, Groningen, Netherlands
John W. A. Rossen, Groningen, Netherlands
Robert Schlalberg, Salt Lake City, UT, United States
Jacques Schrenzel, Geneva, Switzerland
Nicola Segata, Trento, Italy

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Picture outside: Bioinformatics tools used for metagenomics data analysis. @ Natacha Couto
Picture inside: Analyses of metagenomics data. @ Natacha Couto

Capacity-Building Workshop: Metagenomics in the Diagnostic Laboratory
Groningen, Netherlands
21 – 24 October 2018
Course Programme

Sunday, 21 October 2018
12:00 Welcome with bites and drinks
12:35 Welcome to Groningen. Alexander W. Friedrich

Introduction to metagenomics
Chairs: Alexander W. Friedrich, John W. A. Rossen

12:45 Clinical metagenomics. Jacques Schrenzel
13:30 Metagenomics for pathogen discovery. Claire Bertelli
14:15 Metagenomics for One Health. Rene Hendriksen
15:00 Coffee break
15:30 Metagenomics impact on AMR surveillance. Enrico Franz
16:15 Metagenomics in health and disease. Jiqiang Fu
17:00 Making sense of antibiotic resistance – exploring genotypype-phenotype links using whole genome sequencing data. Sandra Reuter
18:00 Welcome reception (drinks and bites)
This reception is offered by the University of Groningen, the Municipality of Groningen and the Province of Groningen.

Monday, 22 October 2018
08:30 Welcome with coffee and tea

The theory behind Next-Generation Sequencing and metagenomics
Chair: Silke Peter
09:00 NGS: the basics. Stefan Green
10:00 NGS: current and future platforms. Natacha Couto
11:00 Coffee break
11:30 Sample preparation and sequencing for metagenomics. Stefan Green
12:30 Lunch

Clinical applications for metagenomics
Chair: Natacha Couto
13:30 Metagenomic analysis in routine practice. Robert Schloberg
14:15 Metagenomics for respiratory tract infections. Nicole Fischer
15:00 Coffee break
15:30 Application of metagenomics for bacteriemia. John W. A. Rossen
16:15 Deep sequencing for resistome analysis in the hospital. Silke Peter
18:00 Social event and dinner

Tuesday, 23 October 2018
08:30 Bioinformatics for metagenomics. Chairs: Jacob Moran-Gilad, Robert Schloberg
09:00 Bioinformatic tools for metagenomics. To be confirmed
09:45 Integrative and machine learning metagenomic approaches. Nicola Segata
10:30 Coffee break
11:00 Visualization of metagenomic data. Joao Andre Carrico
11:45 Metagenomics data simulation. Jacob Moran-Gilad
12:30 Lunch and farewell to participants not attending the practicals
13:30 – 19.00 Practical afternoon: Wet laboratory – library prepping and sequencing
Chairs: Natacha Couto, Erwin Roaangs

Wednesday, 24 October 2018
08:30 – 12:00 Bioinformatics practicals
Chairs: Joao Andre Carrico, Natacha Couto, Jacob Moran-Gilad, John W. A. Rossen, Sigrid Rosena, Monika Chlebowicz, Silvio Garcia Cobos

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