



Target Audience

20 medical doctors with some laboratory training

Faculty Members

Thomas Bjarnsholt
Janus Haagensen
Niels Høiby
Lars Jelsbak
Helle Krogh Johansen
Per Klemm
Søren Molin
Claus Moser
Claus Sternberg
Peter Østrup Jensen

All faculty members are from Copenhagen, Denmark.

Contacts

Administrative Secretariat

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Pictures inside: The flowchamber system for confocal laser scanning microscopy (CLSM) featuring two biofilms of *Pseudomonas aeruginosa*. Pictures kindly provided by Claus Sternberg, Danish Technical University, Copenhagen, Denmark.

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ESGB
ESCMID STUDY GROUP
FOR BIOFILMS

ESGB Postgraduate
Technical Workshop

Medical Biofilm Techniques 2010

Copenhagen, Denmark
16 – 19 August 2010



ESGB
ESCMID STUDY GROUP
FOR BIOFILMS

Medical Biofilm Techniques 2010

Organized by the ESCMID Study Group for Biofilms (ESGB)

Organizers

Niels Høiby, Copenhagen, Denmark
Søren Molin, Copenhagen, Denmark
Claus Sternberg, Copenhagen, Denmark

Course Objectives

The course is focused on medical biofilms with examples from urinary tract infections to cystic fibrosis lung infections. The techniques include setup and running of biofilm flow cell systems, fluorescence *in situ* hybridization, various advanced imaging techniques, image analysis, flow cytometry and demonstration of biofilm techniques in experimental animal research. There will be a morning and a late afternoon lecture, the rest of the day will include laboratory demonstrations and work.

Course Venue

Danish Technical University, Lyngby
(Northern part of Copenhagen)

Scientific Programme

- Day 1
- Introduction to medical biofilms: antibiotic resistance and medical importance in general. *Søren Molin & Niels Høiby*
 - Introduction to biofilm research: growth, microscopic analysis and image processing. *Janus Haagensen & Claus Sternberg*
 - Practical: setup of biofilm systems, flow cells and microtiter trays, inoculation
- Day 2
- Cystic fibrosis and biofilms: clinical and experimental scenarios. *Niels Høiby, Claus Moser, Helle Krogh Johansen & Lars Jelsbak*
 - Urinary tract infections and biofilms. *Per Klemm*
 - Practical: screening of microtiter tray assay
 - Practical: microscopy on biofilm morphology
 - Practical: antibiotic treatment of biofilm systems
- Day 3
- Quantitative analysis (COMSTAT) and image processing of biofilm data. *Janus Haagensen & Claus Sternberg*
 - Practical: microscopy of antibiotic treated biofilms
 - Practical: COMSTAT of morphology data
 - Practical: image processing
- Day 4
- Medical biofilms and antibiotic resistance mechanisms. *Niels Høiby*
 - Animal models of biofilm. *Claus Moser, Thomas Bjarnsholt & Peter Østrup Jensen*
 - Practical: image processing
 - Practical: technical aspects of biofilm and experimental animal research

Organization

Application Procedure

The application form can be found on the ESCMID website at www.escmid.org/calendar. Please return it to the course administrative secretariat by 3 May 2010.

Tuition Fee

EUR 600

The fee covers course participation and printed educational material. It does not include travel, accommodation and meals.

Accommodation Costs

Accommodation is not included in the tuition fee and will be approx. EUR 500. The secretariat can provide suggestions.

CME Accreditation

The organizer of the course will apply for European CME accreditation.