



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

Professor Niels Høiby
University of Copenhagen
Dept. Clin. Microbiology 9301
Rigshospitalet
Juliane Maries Vej 22
2100 Copenhagen, Denmark

Phone +45 35 457 788
Fax +45 35 456 412
hoiby@hoibyniels.dk

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.



© ESCMID, February 2009

ESCMID Postgraduate
Technical Workshop

**Medical Biofilm
Techniques 2009**

**Copenhagen, Denmark
17 – 20 August 2009**

Registered Society, Munich, Germany, No. 10956



Medical Biofilm Techniques 2009

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/education. Please return it to the course administrative secretariat by 1 May 2009.

Tuition Fee

ESCMID members: EUR 500
Non-members: 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.

Attendance Grants

ESCMID provides a number of attendance grants for young attendees (born in 1969 or later) covering the tuition fee, but not travel or accommodation costs. Applicants should send the application form, a short CV with a cover letter indicating their motivation for attending the event and their ESCMID membership number (if applicable) before 1 May 2009 to the administrative secretariat. If there are more applicants than available grants, preference will be given to ESCMID members. Applicants will be informed about their acceptance by 11 May 2009.

CME Accreditation

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