

SCIENTIFIC PROGRAMME

Pre-Congress Workshops 5 July 2011

Time	Workshop 1 - Animal models of biofilms	Workshop 2 - Microfluid systems in confocal laser scanning microscopy	Workshop 3 - Molecular diagnostics of biofilm bacteria	Workshop 4 -New techniques for visualization of biofilms
	1.2.18	21.2.27B	1.2.16	CFIM 18.01
09:00	Intro and Lung models with <i>Pseudomonas aeruginosa</i> <i>Claus Moser (DK)</i>	Faculty: <i>Claus Sternberg, Robert Palmer, Jr. and Paul Stoodley</i> The workshop will take the participants to a presentation of different flow chamber systems for investigation of microbial biofilms, and the assembly of such systems will be demonstrated. A semi-automated commercial microfluidic system will be demonstrated. An in situ spatiotemporal model for oral biofilm formation will be demonstrated. Confocal microscopy of biofilms will be done on a working confocal microscope. Confocal image data processing by qualitative means (Imaris image presentation software) and quantitative means (Comstat 2 3D image feature extraction software) will be demonstrated. Demonstrations will be partially hands-on. The participants will further be granted access to a dedicated website containing sample data, a video presentation of flow chamber system assembly, and Comstat2 and Imaris software (demo license).	Introduction <i>Per Halkjær Nielsen (DK)</i> Phylogeny: the basis of molecular identification <i>Aaron Saunders</i> Coffee Break Molecular diagnosis by PCR, qPCR and clone libraries <i>Trine Rolighed Thomsen (DK)</i> Pyrosequencing to assess microbial diversity <i>Aaron Saunders</i> Visualization, identification and quantification by FISH <i>Per Halkjær Nielsen (DK)</i> Ibis T5000 Biosensor System <i>Garth Ehrlich (US)</i> Lunch Break Lunch Break Validating Ibis Diagnostics of Biofilm Infections using 16S FISH and 16S Deep Sequencing <i>Garth Ehrlich (US)</i> Cases, coffee break and discussion <i>Yijuan Xu (DK)</i> <i>Vibeke Rudkjøbing (DK)</i> <i>Helle Krogh Johansen (DK)</i> <i>Trine Rolighed Thomsen (DK)</i>	Confocal microscopy for imaging and analysis of microorganisms <i>Thomas Hartig Braunstein (DK)</i> New trends in scanning and transmission electron microscopy. FIB SEM, TEM Tomography and cryo applications <i>Klaus Qvortrup (DK)</i> Coffee Break Combined optical and atomic force microscopy for imaging and analysis of microorganisms <i>Rikke Louise Meyer (DK)</i> Challenges for AFM imaging of soft samples <i>Jörg Barner</i> Lunch Break Hands-on session with each of the imaging techniques Confocal imaging SEM/TEM imaging AFM imaging Hands-on session with each of the imaging techniques Confocal imaging SEM/TEM imaging AFM imaging Hands-on session with each of the imaging techniques Confocal imaging SEM/TEM imaging AFM imaging
09:15				
09:30				
09:45				
10:00				
10:15	Coffee Break			
10:30				
10:45	Lung models with <i>Pseudomonas aeruginosa</i> – antibiotic resistance and lung function measurement <i>Oana Ciofu (DK)</i>			
11:00	Peritoneal implant models with <i>Pseudomonas aeruginosa</i> and quorum sensing <i>Thomas Bjarnsholt (DK)</i>			
11:15				
11:30				
11:45				
12:00				
12:15				
12:30	Lunch Break			
12:45				
13:00				
13:15				
13:30	Inflammation/immunology in <i>Pseudomonas aeruginosa</i> biofilms <i>Peter Østrup Jensen (DK)</i>			
13:45				
14:00				
14:15				
14:30		Coffee Break		
14:45				
15:00	Staphylococcus aureus biofilm models <i>Mark Shirtliff (US)</i>			
15:15				
15:30				
15:45				
16:00				
16:15				
16:30				
16:45				
17:00	Pre congress symposium on International collaborations			
17:15	Chairs: <i>Bill Costerton and Thomas Bjarnsholt</i> Recent Advances on Microbial Biofilms Researchs in China. <i>Yi-Qiang Chen (CN)</i> Current status of biofilm research in Argentina and South America <i>Alejandra Bosch (AR)</i> Current status of biofilm research in North <i>Bill Costerton (CA)</i> Current status of biofilm research in Japan <i>Soichiro Kimura (JAP)</i> Current status of biofilms research in Australia <i>Makrina Totsika (AU)</i> Current status of bacterial biofilm research in Europe <i>Gianfranco Donelli (IT)</i> Current status of fungal biofilm research in Europe <i>Christine Imbert (FR)</i>			

Time	Lundsgaard Auditorium	Haderup Auditorium
09:00	Opening and Welcome Addresses:	
09:15	<i>Niels Høiby & Representatives from ESCMID and DSKM</i>	
09:30	Opening lectures (one basic and one clinical)	
09:45	Chairs: <i>Niels Høiby (DK), J.W. Costerton (USA)</i>	
10:00	QS and QSI – strengthening and weakening biofilms	
10:15	<i>Michael Givskov (DK)</i> Biofilm infections in orthopedic surgery <i>Werner Zimmerli (CH)</i>	
10:30	Coffee Break	
10:45		
11:00	Symposium 1 Clinical: Diagnosis of biofilm infections Chairs: <i>Thomas Bjarnsholt (DK), Poul Stoodley (UK)</i>	Symposium 2 Basic: Regulation of biofilm development Chairs: <i>Tim Tolker Nielsen (DK), Paolo Landini (IT)</i>
11:15	The status of biofilm diagnostics <i>Thomas Bjarnsholt (DK)</i>	Mechanisms involved in <i>Pseudomonas putida</i> biofilm formation and biofilm dispersal <i>Tim Tolker Nielsen (DK)</i>
11:30	Detecting biofilm bacteria in clinical specimens with applications in diagnostics and prevention <i>Poul Stoodley (UK)</i>	Effects of modified nucleotides on expression of biofilm related genes in <i>E. coli</i> : c-di-GMP and more <i>Paolo Landini (IT)</i>
11:45	Diagnosing Polymicrobial Biofilm Infections and Colonizations by 454-based Deep Sequencing <i>Garth Ehrlich (US)</i>	SY02.03 MqsR/MqsA Toxin/Antitoxin and Stress Response, Biofilm, and Persisters <i>Thomas Wood (US)</i>
12:00	SY01.03 In situ analysis of medical biofilms <i>Judith Kikhney (DE)</i>	SY02.04 Role of two exonucleases in <i>Shewanella oneidensis</i> MR-1 biofilm formation <i>Kai Thormann (DE)</i>
12:15	SY01.04 Microbiological Analyses of Drinking Water and Water Supply Systems in Poultry Husbandry to Evaluate a Possible Risk of Biofilm Formation <i>Daniel Windhorst (DE)</i>	SY02.05 Discerning surface motility patterns important to biofilm formation <i>Joshua Shrout (US)</i>
12:30	SY01.05 Chronic Airway Infections of Cystic Fibrosis Patients – the Microorganisms Involved <i>Vibeke Børsholt Rudkjøbing (DK)</i>	SY02.06 BdlA regulates biofilm dispersion through a dynamic interaction network via redox sensing. <i>Olga Petrova (US)</i>
12:45		
13:00	Lunch Break	
13:15		
13:30	Integrated symposium on “Treatment of biofilm infections- In practice”	
13:45	Treatment concepts of orthopedic biofilm infections <i>Werner Zimmerli (CH)</i>	
14:00	Everyday treatment of biofilm infections - antibiotics and beyond <i>Claus Moser (DK)</i>	
14:15		
14:30	Poster discussion and coffee break	
14:45		
15:00		
15:15		
15:30	Symposium 3 Clinical: Airway and wound biofilm infections and host response Chairs: <i>Helle Krogh Johansen (DK), Garth James (USA)</i>	Symposium 4 Basic: Novel methodology for studies of biofilm structure and composition and omics Chairs: <i>Claus Sternberg (DK), Thomas Neu (DE)</i>
15:45	New challenges in CF: Sinus infections <i>Helle Krogh Johansen (DK)</i>	High resolution laser microscopy techniques and their suitability in biofilm research <i>Thomas Neu (DE)</i>
16:00	Oxygen, Wound Healing and Biofilms <i>Garth James (USA)</i>	Novel microfluidic flow-cell systems with controllable oxygen exposure for investigation of bacterial biofilms of medical importance. <i>Martin Weiss-Nielsen (DK)</i>
16:15	SY03.03 N2O is produced in Sputum from chronically infected Cystic Fibrosis Patients <i>Mette Kolpen (DK)</i>	SY04.03 Lactobacillus spp. Identification in Mixed Samples by PNA FISH <i>Antônio Machado (PT)</i>
16:30	SY03.04 Identification and Quantification of Bacteria in Sinuses from Cystic Fibrosis Patients using Cultivation Based and Molecular Methods <i>Trine Rolighed Thomsen (DK)</i>	SY04.04 Enhanced matrix visualization using Cryo- and Environmental Scanning Electron Microscopy – envisioning the authentic biofilm? <i>Morten Alhede (DK)</i>
16:45	SY03.05 Genetic variability in <i>L. monocytogenes</i> continuous-flow biofilms <i>Tjakko Abee (NL)</i>	SY04.05 The role of single-stranded DNA in biofilm formation of different species. <i>Maria Zweig (DE)</i>
17:00		SY04.06 Recombinant Model Systems for <i>Pseudomonas</i> Functional Bacterial Amyloids <i>Morten Dueholm (DK)</i>
17:15		
17:30	Poster discussion	
17:45		
18:00		
18:15		
18:30		
19:30 – 20:30	Welcome reception at City Hall	



Time	Lundsgaard Auditorium	Haderup Auditorium
08:30	Keynote lectures (one basic and one applied/clinical)	
08:45	Chairs: <i>Peter Østrup Jensen (DK), Hans Curt Flemming (DE)</i>	
09:00	Electric wiring in marine biofilms <i>Lars Peter Nielsen (DK)</i>	
09:15	Staphylococcal biofilm infections <i>Holger Rohde (DE)</i>	
09:30	Poster discussion and coffee break	
09:45		
10:00		
10:15		
10:30	Symposium 5 Clinical: Dental biofilms	Symposium 6 Basic: Diversification and evolution in biofilms
10:45	Chairs: <i>Tove Larsen (DK), Robert Palmer (USA)</i>	Chairs: <i>Søren Molin (DK), Marco Oggioni (IT)</i>
11:00	Control of bacterial function in relation to oral disease <i>Gunell Svensetter (SE)</i>	Biofilm-driven evolution of a fitness tradeoff yields culture resistant bacteria <i>Pradeep Singh (US)</i>
11:15	Complementary Glycoside Hydrolases - a Mechanism for Mutualistic Growth in Oral Biofilms? <i>Robert Palmer (US)</i>	On mutators, biofilms and bacterial diversification <i>Andrea Smania (AR)</i>
11:30	SY05.03 pH Landscapes in a Novel Five-Species Model of Early Dental Biofilm <i>Sebastian Schlafer (DK)</i>	SY06.03 Environmental and genetic constraints guide the convergent evolution of biofilms <i>Anna Koza (UK)</i>
11:45	SY05.04 Alginate oligosaccharides in the management of oral biofilms <i>Katja E Hill (UK)</i>	SY06.04 The GABL Phenotype: Hyperadherent Variants that Out-compete the Wild Type Arise in Biofilm Populations of <i>Pseudomonas putida</i> <i>Fatima Yousef-Coronado (ES)</i>
12:00	SY05.05 Oral biofilm architecture: Who are the key players? <i>Annette Møter (DE)</i>	SY06.05 Growth and development of 3-dimensional structures in biofilms and cancer - an integrated approach <i>Samuel Collins (UK)</i>
12:15	SY05.06 Amyloid Formation by the Oral Pathogen <i>Streptococcus mutans</i> <i>Jeannine Brady (US)</i>	
12:30	Lunch Break	
12:45	Comparison of cultures with a new PCR-MS platform in the detection and identification of bacterial pathogens in prosthetic joint infections	
13:00	<i>Bill Costerton and</i>	
13:15	Diagnostic possibilities in the clinical microbiology lab	
13:30	<i>Niels Høiby</i>	
13:45		
14:00	Poster discussion and coffee break	
14:15		
14:30		
14:45		
15:00	Symposium 7 Clinical: Biofilm-based medical device related infections and host response	Symposium 8 Basic: Biofilm community ecology
15:15	Chairs: <i>Gianfranco Donelli (IT), Claus Moser (DK)</i>	Chairs: <i>Michael Kühl (DK), Staffan Kjelleberg (AU)</i>
15:30	The clogged biliary stent as a model to study single- and dual-species biofilms of intestinal anaerobic bacteria <i>Gianfranco Donelli (IT)</i>	Ecology of Chlorophyll d-containing Cyanobacteria in Biofilm Habitats <i>Michael Kühl (DK)</i>
15:45	The Staphylococcal Biofilm Defense <i>Philip Stewart (US)</i>	Biofilm mediated disease on marine macrobenthic hosts <i>Staffan Kjelleberg (AU)</i>
16:00	SY07.03 Confocal microscopy analysis of bacterial viability in endo-tracheal tube Biofilm from a pig model of MRSA pneumonia receiving antimicrobial therapy <i>Laia Fernández-Barat (ES)</i>	SY08.03 Alternative biofilm architectures, formed by <i>Staphylococcus epidermidis</i> <i>Paul Webster (US)</i>
16:15	SY07.04 Activity of Daptomycin and Rifampicin (Alone or in Combination) against <i>Propionibacterium acnes</i> in a Experimental Foreign-Body Infection Model <i>Ulrika Furustrand (CH)</i>	SY08.04 Characterisation of naturally occurring, industrial and medical relevant biofilms <i>Nancy Weiland (DE)</i>
16:30	SY07.05 <i>Klebsiella pneumoniae</i> and <i>Escherichia coli</i> biofilm Formation on Urinary Tract Catheters <i>Steen G Stahlhut (DK)</i>	SY08.05 Multiple Role of Biofilm in the Complex Life Cycle of the Plague Agent <i>Galina Eroshenko (RU)</i>
16:45	SY07.06 Complement activation by <i>Staphylococcus epidermidis</i> biofilm is less pronounced in neonates as compared to adults <i>Hildegunn Norbakken Granslo (NO)</i>	SY08.06 Application of the nematode <i>Caenorhabditis elegans</i> as a model for Multi Kingdom Biofilm Interactions of <i>Staphylococcus aureus</i> and <i>Candida albicans</i> <i>Birthe Venoe Kjellerup (US)</i>
17:00	Poster discussion	
17:15		
17:30		
17:45		
18:00		
19:00 – 24:00	Congress dinner at Ceremonial Hall, University of Copenhagen	

Time	Lundsgaard Auditorium	Haderup Auditorium
08:30	Keynote lectures (one basic and one applied/clinical)	
08:45	<i>Chairs: Luanne Hall-Stoodley (UK), Gerd Döring (DE)</i>	
09:00	The biofilm matrix	
09:15	<i>Matt Parsek (US)</i> Biofilm-specific genes in relation to chronic infections <i>Alain Filloux (UK)</i>	
09:30	Poster discussion and coffee break	
09:45		
10:00	Symposium 9 Clinical: Resistance and tolerance of biofilms to antibiotics and host response	Symposium 10 Basic: Fungal biofilms
10:15	<i>Chairs: Oana Ciofu (DK), Antonio Oliver (Spain)</i>	<i>Chairs: Christine Imbert (FR), Birgitte Regenberg (DK)</i>
10:30	The role of conventional resistance mechanisms in the treatment of biofilm associated infections <i>Oana Ciofu (DK)</i>	Interest of conventional antifungal agents and natural compounds to fight <i>Candida</i> spp. biofilms in vitro <i>Christine Imbert (FR)</i>
10:45	Mutation-driven antibiotic resistance in <i>P. aeruginosa</i> biofilms and chronic infections <i>Antonio Oliver (ES)</i>	Role of amino acid transports in the development of yeast, <i>Saccharomyces cerevisiae</i> , biofilm <i>Birgitte Regenberg (DK)</i>
11:00	SY09.03 Transcriptome analysis of persister cells in <i>Burkholderia cenocepacia</i> biofilms	SY10.03 Role of the cell surface hydrophobicity in <i>Candida albicans</i> biofilm
11:15	<i>Tom Coenye (BE)</i>	<i>Helena Bujdaková (SI)</i>
11:30	SY09.04 DNA-induced spermidine synthesis contributes to membrane stabilization, resistance to antibiotics and oxidative stress in <i>Pseudomonas aeruginosa</i> . <i>Shawn Lewenza (CA)</i>	SY10.04 Is biofilm-forming ability a real major virulence factor in the pathogenicity of <i>Candida albicans</i> ? <i>Elisa Borghi (IT)</i>
11:45	SY09.05 Reducing biofilm associated infections by surface-acoustic waves <i>Ehud Banin (IL)</i>	SY10.05 Conception of anti- "fungal biofilm" surfaces <i>Aïcha Gharbi (FR)</i>
	SY09.06 Presence of the <i>pgaABCD</i> loci and biofilm formation by <i>Achromobacter xylosoxidans</i> <i>Tim Holm Jakobsen (DK)</i>	
12:00	Lunch break	
12:15		
12:30		
12:45		
13:00	Symposium 11 Basic and clinical: Social interactions in Biofilms	
13:15	<i>Chairs: Elizabeth Presterl (AU), Søren J Sørensen (DK)</i>	
13:30	Microbial communication: Intra-biofilm interaction or social life? <i>Elizabeth Presterl (AU)</i>	
13:45	Title 2 <i>Søren J Sørensen (DK)</i>	
14:00	SY11.03 Bacterial Social Networks: Targeted Delivery of Outer Membrane Proteins via Membrane Vesicle Chains <i>Jonathan Remis (US)</i>	
14:15	SY11.04 Insights into a multidrug resistant <i>Escherichia coli</i> pathogen belonging to the globally disseminated ST131 lineage: genome analysis and virulence mechanisms. <i>Makrina Totsika (AU)</i>	
14:30	SY11.05 Establishment of new animal model for mix species biofilm formation of <i>Actinomyces naeslundii</i> and streptococci <i>Xi Zhang (JP)</i>	
14:45	SY11.06 Can Simpson's paradox explain cooperation in bacterial biofilms? <i>Jeremy Webb (US)</i>	
15:00	Poster awards and Closing of Eurobiofilms 2011	
15:15		

