

Conference Program

Thursday, 9 June, 2011				
Time	Ab#	Title	Presenter	Affiliation
8:15 - 9:00		Registration and Continental Breakfast		
Session 1		session chair = Matt Libera (Stevens)		
9:00 - 9:15		Welcome and Overview	Matthew Libera	Stevens
9:15 - 9:45	1	Biomaterials-Associated Infections: Crosspoints between Disciplines	Henk Buscher	UMCG
9:45 - 10:15	2	Prevention, Diagnosis, and Medical Management of Hardware Associated Infection	Elie Barbari	Mayo Clinic
		Rapid Fire Presentations		
10:15 - 10:20	P1	Inkjet-Printed Antibiotic- and Calcium-Eluting Bioresorbable Nanocomposite Micropatterns for Orthopaedic Implants	Yexin Gu	Stevens
10:20 - 10:25	P2	Microtopographic Patterns Affect Escherichia coli Biofilm Formation on poly(dimethylsiloxane) Surfaces	Huan Gu*	Syracuse
10:25 - 10:30	P3	Differential Response of Staphylococci and Osteoblasts to Varying Titanium Surface Roughness	Yong Wu	Stevens
10:30 - 11:00		Break and posters		
Session 2		session chair = Barry Kreiswirth (PHRI)		
11:00 - 11:30	3	Biofilm Development and Antibiotic Resistance	Karin Sauer	Binghamton University
11:30 - 12:00	4	Antimicrobial Peptoids Are Effective against Pseudomonas aeruginosa Biofilms	Rinki Kapoor	Stanford University
		Rapid Fire Presentations		
12:00 - 12:05	P4	Evaluating the Physical Properties of Pseudomonas aeruginosa Lipopolysaccharides and Their Relationship to Bacterial Pathogenicity	Ivan Ivanov*	Worcester Polytechnic
12:05 - 12:10	P5	Electrochemical Inhibition of Bacterial Persister Cells	Tagbo Niepa*	Syracuse
12:10 - 1:15		working lunch		
Session 3		session chair = Joe Zitelli (Stryker)		
1:15 - 1:45	5	Orthopedic Device Failure: Distinguishing Infection from Aseptic Loosening	Tom Bauer	Cleveland Clinic
1:45 - 2:15	6	Surgical Management of Hardware Associated Spinal Infections	Ahmad Nassr	Mayo Clinic
2:15 - 2:30	7	Development of Clinically Relevant Methods to Determine Antimicrobial Efficacy of an Antibiotic Coated Hip System	Claire Kavanagh	Depuy Ireland
		Rapid Fire Presentations		
2:30 - 2:35	P6	Biomimetic Nanofibers with Antibiotic-Eluting Bioresorbable Micropatterns for Orthopaedic Implant Surface	X. Chen	Stevens
2:35 - 2:40	P7	In Vitro Bacterial Interactions With Surface Modified PEEK	Edward Rochford*	AO Foundation
2:40 - 2:45	P8	Length-Scale Mediated Differential Adhesion of Mammalian Cells and Microbes	Yi Wang	Stevens
2:45 - 3:15		break and posters		
Session 4		session chair = Svetlana Sukhishvili (Stevens)		
3:15 - 3:45	8	Bacterial Biofilms as a Source of Antibiofilm Compounds	Jeff Kaplan	UMDNJ
3:45 - 4:00	9	Nanotechnology for Reducing Biofilm Infections on Medical Devices	Tom Webster	Brown
4:00 - 4:15	10	Controlling Bacterial and Fungal Biofilms with Rechargeable Antimicrobial Biomaterials	Yuyu Sun	Univ. of South Dakota

4:15 - 4:30	11	Acinetobacter baumannii Biofilm Formation on Standard and New Generation Orthopaedic Metals	Mark Ehrensberger	SUNY Buffalo
4:30 - 4:45	12	Hydrogel Based Coatings for Controlled Release of Vancomycin	Xiaojun Yu	Stevens
		Rapid Fire Presentations		
4:30 - 4:35	P9	Surface Self-Assembled Antimicrobial Microgels	Q. Wang	Stevens
4:35 - 4:40	P10	Maintenance of Adhering Staphylococci on a Surface during Exposure to a Quaternary Ammonium Compound and AFM Imaging	Mihaela Crismaru	UMCG
4:40 - 4:45	P11	Quartz Crystal Microbalance with Dissipation Monitoring (QCM-D) Studies of Antimicrobial Peptide Destabilization of Cell Membranes	K.F. Wang	Worcester Polytechnic
4:45 - 6:00		free		
6:00 - 7:00		Reception at W Hotel		
7:00 - 9:30	13	Dinner Seminar: The Hitchhiker's Guide to Finding the Perfect Biofilm-Resistant Biomaterial	Bill Costerton	Allegheny-Singer Research Institute
Friday, 10 June, 2011				
8:15 - 9:00		registration and continental breakfast		
Session 5		session chair = Tom Webster (Brown)		
9:00 - 9:30	14	The Race to the Biointerface: Measuring Biofilms on Medical Devices	Scott Phillips	FDA
9:30 - 10:00	15	Bridging the Gap between In Vitro and In Vivo Evaluation of Biomaterials-Associated Infections	Henny van der Mei	UMCG
10:00 - 10:30	16	3D Bone Tissue Model for Biomaterial-Associated Infection and Wound Healing	Woo Lee	Stevens
10:30 - 11:00		break and posters		
Session 6		session chair = Karin Sauer (Binghamton)		
11:00 - 11:30	17	Bacterial Interactions in Human Oral Biofilms	Rob Palmer	NIH
11:30 - 11:45	18	Quantifying the Effects of Material Properties on Oral Biofilms	Nancy Lin	NIST
11:45 - 12:00	19	BioScape: A Modeling and Simulation Language for Bacteria-Materials Interactions	Adriana Compagnoni	Stevens
		Rapid Fire Presentations		
12:00 - 12:05	P12	Microfluidic Approach to Create 3D Tissue Models for Biofilm-Related Infection of Orthopaedic Implants	Helen Lee	Stevens & Columbia
12:05 - 12:10	P13	Superparamagnetic Iron Oxide Nanoparticles Could Be Better than Antibiotics at Reducing Biofilm Produced by Staphylococcus aureus	Erik Taylor*	Brown
12:10 - 12:15	P14	Fighting Slime - Dispersing Biofilms with Layer-by-Layer Coatings	Svetlana Pavlkhina	Stevens
12:15 - 1:15		working lunch		
Session 7		session chair = Nancy Lin (NIST)		
1:15 - 1:45	20	Self-Assembled Antimicrobial Coatings	Svetlana Sukhishvili	Stevens
1:45 - 2:00	21	Enhancement and Mechanism of Resisting Biofilm Formation by Chiral Monolayers on Nanostructured Gold films	Yan-Yeung Luk	Syracuse
2:00 - 2:15	22	Polylactic Acid Electrospun Membranes Incorporating Silver Nanoparticles	Angel Romo-Uribe	UNAM

2:15 - 2:30	23	Biomimetic Surfaces for Wound Healing	Hongjun Wang	Stevens
2:30 - 2:45		break		
		Panel Discussion. Matt Libera (moderator)		
2:45 - 3:45		How Can We More Quickly Bring New Materials-Based Infection-Control Strategies to Clinical Practice?	Henk Busscher (Koff Institute); Bill Costerton (Allegheny Singer); Woo Lee (Stevens); Scott Philips (FDA)	
3:45 - 4:00		Conference closure		
Additional Posters				
	P15	SERS-Enabled Biofilm Mapping	Jinwoo Park	Stevens
	P16	Susceptibility of <i>S. aureus</i> Biofilms to Reactive Discharge Gases	Christian Traba	Stevens
	P17	Molecular-Beacon-Conjugated PEG Nanohydrogels for Bacterial Identification	Xiaoguang Dai	Stevens
	P18	Squarylated Homoserine Lactone (SHL): New Unnatural Modulator for Quorum Sensing and Biofilm Formation	Yan-Yeung Luk	Syracuse
	P19	Morphological Effects of Quaternary Ammonium Compounds on Staphylococci	Aidan Zerdoum	Stevens
	P20	Three-Dimensional Nanostructures for Anti-Biofouling	Chang-Hwan Choi	Stevens