

Agenda

Wednesday, 14 June, 2017			
Wesley J. Howe Center, Bissinger Room (4th Floor)			
Time	Title	Presenter	Affiliation
8:15 - 9 a.m.	Registration and Continental Breakfast		
Session 1	Session Chair: Matthew Libera, Stevens Institute of Technology		
9 - 9:15 a.m.	Welcome and Overview	Matthew Libera	Stevens Institute of Technology
9:15 - 10 a.m.	Invited: Bacterial Strategies to Cause Biomaterial-Associated Infections and Our Failing Attempts to Stop Them	Henk Busscher	University Medical Center Groningen
10 - 10:30 a.m.	Invited: Static Versus Dynamic Adhesion of Bacteria on Engineered Surfaces	Maria Santore	University of Massachusetts, Amherst
10:30 - 10:35 a.m.	RF: Understanding the Mechanism of Killing of <i>Pseudomonas aeruginosa</i> and <i>Staphylococcus aureus</i> Biofilms by Electroceutical Wound Dressing (P1)	Devendra Dusane	The Ohio State University
10:35-10:40 a.m.	RF: Cell Wall Weakening by Antibiotics in Adhering Bacteria (P2)	Vera Carniello	University Medical Center Groningen
10:40 - 10:45 a.m.	RF: Substrate Effects on Early-Stage <i>S. aureus</i> Biofilm Formation (P3)	Alex Chou	Stevens Institute of Technology
10:45 - 11:15 a.m.	Break and Poster Viewing		
Session 2	Session Chair: Dacheng Ren, Syracuse University		
11:15 - 11:45 a.m.	Invited: Mechanisms Contributing to the Formation of "Floating Biofilms" in <i>Staphylococcus aureus</i> Orthopedic Infections	Michael Otto	National Institutes of Health
11:45 - 12 p.m.	<i>Pseudomonas aeruginosa</i> Biofilms Alter Their Rheological Properties as an Adaption to Infection	Erin Gloag	The Ohio State University
12 - 12:05 p.m.	RF: Viscoelastic Properties Determine Biofilm Recalcitrance to Antimicrobials in <i>Pseudomonas aeruginosa</i> Biofilms (P4)	Prashant Sharma	University Medical Center Groningen
12:05 - 12:10 p.m.	RF: New Insights on the Interactions Between a Bacterial Quorum-Sensing Biosensor and Chitosan-Based Nanocapsules (P5)	Christoph Engwer	University of Münster
12:10 - 12:15 p.m.	RF: Developing Microdialysis Sampling as an Analysis Tool for Quorum Sensing from Biofilms (P6)	Julie Stenken	University of Arkansas
12:15 - 12:20 p.m.	RF: Antimicrobial Efficacy of Metal Ion Solutions Alone and in Combination Against Medically Relevant Planktonic and Biofilm Phenotypes (P7)	Misha Vaidya	Manchester Metropolitan University
12:20 - 1:15 p.m.	Lunch and Posters		

Session 3		Session Chair: Matt Libera, Stevens Institute of Technology	
1:15 - 1:45 p.m.	Invited: Photopolymerized Hydrogel Carriers for Live Vaccine Ballistic Delivery to Bison	David Grainger	University of Utah
1:45 - 1:50 p.m.	RF: Salt Form Engineering of Encapsulated Antibiotics for Prolonged Therapeutic Delivery and Activity (P8)	Kurt Ristroph	Princeton University
1:50 - 2:05 p.m.	The Fate of Bacteria Adhering to Antibacterial Surfaces: Antibiotic Susceptibility, Resistance Development and Macrophages Action	Diana Alves	Centre of Biological Engineering, University of Minho, Portugal
2:05 - 2:20 p.m.	Preparation of the Antimicrobial Surface by Direct Assembly of Antimicrobial Peptide with Its Surface Binding Activity	Junjian Chen	South China University of Technology
2:20 - 2:35 p.m.	Antimicrobial and Antifouling Dual-Functional Surface Coatings to Combat Biomaterial-Associated Infections	Peng Li	Nanjing Tech University
2:35 - 2:40 p.m.	RF: Novel Synthetic Antimicrobial and Anti-Biofilm Peptides are Highly Effective Against Implant-Associated Infections (P9)	Martijn Riool	Academic Medical Center at the University of Amsterdam
2:40 - 2:45 p.m.	RF: Development of Multifunctional Lubricious Catheter Coatings Towards the Prevention of Device-Associated Infections (P10)	Nicola Irwin	Queen's University Belfast
2:45 - 3:15 p.m.	Break and Poster Viewing		
Session 4		Session Chair: Jordan Katz, Orthobond	
3:15 - 3:45 p.m.	Invited: Surface Microtopography Reduces Bacterial Colonization and Device-Associated Infection	Binjie Xu	Sharklet Technologies
3:45 - 4 p.m.	How Different Biomimetic Nanostructured TI Surfaces Affect Bacterial Adhesion and Biofilm Formation	Jinju Chen	Newcastle University
4 - 4:05 p.m.	RF: A Dual Functional Surface with Texturing and Nitric Oxide Release for Inhibition of Bacterial Adhesion and Biofilm Formation (P11)	Li-Chong Xu	Pennsylvania State University College of Medicine
4:05 - 4:10 p.m.	RF: Surface Topography of Silicon Nitride Affects Antimicrobial and Osseointegrative Properties (P12)	Bryan McEntire	Amedica Corporation
4:10 - 4:15 p.m.	RF: Prevention of Bacterial Adhesion by Superhydrophobic Coating Bacterial Behavior and the Associated Gene Expression (P13)	Adeline Marguier	IS2M
4:15 - 4:20 p.m.	RF: Anti-Biofilm Amphipathic Peptide D-GL13K Coatings on Dentin for Resisting Degradation of Esthetic Dental Restorations (P14)	Conrado Aparicio	University of Minnesota
4:20 - 4:25 p.m.	RF: Bioadhesive Behavior of Oral Biofilm on Dental Composite Surfaces Containing Protein-Repellent and Antibacterial Monomers (P15)	Mary Anne Melo	University of Maryland School of Dentistry
4:25 - 4:30 p.m.	RF: EDTA Enhances MD Mediated Photodynamic Therapy Antimicrobial Efficacy to Treat Prosthetic Joint Infection (P16)	Rita Ramalhete	University College London
4:30 - 6 p.m.	Break		
6 - 9:30 p.m.	New York City Boat Cruise Reception and Dinner on the Hudson River		

Thursday, 15 June, 2017

Wesley J. Howe Center, Bissinger Room (4th Floor)

Time	Title	Presenter	Affiliation
8:15 - 9 a.m.	Registration and Continental Breakfast		
Session 5	Session Chair: David Grainger, University of Utah		
9:00 - 9:45 a.m.	Invited: Infection Associated with Trauma	James Ficke, M.D.	Johns Hopkins University
9:45 - 10:30 a.m.	Invited: Infection Associated with Cochlear Implants: The Clinical Perspective Combined With Explant Analysis	Tom Roland, M.D.	NYU Langone Medical Center
10:30 - 11 a.m.	Break and Poster Viewing		
Session 6	Session Chair: Daniel Smyth, Cochlear		
11 - 11:30 a.m.	Invited: Antimicrobial Strategies to Combat Biomaterial-Associated Biofilms	Henny van der Mei	University Medical Center Groningen
11:30 - 11:45 a.m.	Large Registry Data Sets and Bacteria-Materials Interactions	Joseph Zitelli	Zimmer-Biomet
11:45 a.m. - 12 p.m.	Examining the Anti-Biofilm and Osteoconductive Properties of a PEEK-Silver Zeolite Composite Biomaterial in Spine	Sriram Sankar	DiFusion Technologies Inc.
12 - 1 p.m.	Group Photo, Lunch and Poster Viewing		
Session 7	Session Chair: Julie Stenken, University of Arkansas		
1 - 1:30 p.m.	Invited: The Regulatory Science of Antibiofilm Medical Device Technologies	Kenneth Phillips	U.S. Food & Drug Administration
1:30 - 2 p.m.	Invited: Using Musculoskeletal Infected Small Animal Models to Test Antimicrobial Agents	Catherine Loc-Carillo	University of Utah
2 - 2:15 p.m.	Estimating Antibacterial Activity and Its Uncertainty	Nancy Lin	National Institute of Standards and Technology
2:15 - 2:30 p.m.	Break		
	Panel Discussion: Matthew Libera, Moderator		
2:30 - 3:30 p.m.	How Can We Bring New Materials-Based Infection-Control Strategies to Clinical Practice?	James Ficke, M.D.	Johns Hopkins University
		David Grainger	University of Utah
		Kenneth Phillips	U.S. Food & Drug Administration
		Binjie Xu	Sharklet Technologies
3:30 p.m.	Conference Closure		

Posters

	Title	Presenter	Affiliation
P1	RF: Understanding the Mechanism of Killing of <i>Pseudomonas aeruginosa</i> and <i>Staphylococcus aureus</i> Biofilms by Electroceutical Wound Dressing	Devendra Dusane	The Ohio State University
P2	RF: Cell Wall Weakening by Antibiotics in Adhering Bacteria	Vera Carniello	University Medical Center Groningen
P3	RF: Substrate Effects on Early-Stage <i>S. aureus</i> Biofilm Formation	Alex Chou	Stevens Institute of Technology
P4	RF: Viscoelastic Properties Determine Biofilm Recalcitrance to Antimicrobials in <i>Pseudomonas aeruginosa</i> Biofilms	Prashant Sharma	University Medical Center Groningen
P5	RF: New Insights on the Interactions Between a Bacterial Quorum-Sensing Biosensor and Chitosan-Based Nanocapsules	Christoph Engwer	University of Münster
P6	RF: Developing Microdialysis Sampling as an Analysis Tool for Quorum Sensing from Biofilms	Julie Stenken	University of Arkansas
P7	RF: Antimicrobial Efficacy of Metal Ion Solutions Alone and in Combination Against Medically Relevant Planktonic and Biofilm Phenotypes	Misha Vaidya	Manchester Metropolitan University
P8	RF: Salt Form Engineering of Encapsulated Antibiotics for Prolonged Therapeutic Delivery and Activity	Kurt Ristroph	Princeton University
P9	RF: Novel Synthetic Antimicrobial and Anti-Biofilm Peptides are Highly Effective Against Implant-Associated Infections	Martijn Riool	Academic Medical Center at the University of Amsterdam
P10	RF: Development of Multifunctional Lubricious Catheter Coatings Towards the Prevention of Device-Associated Infections	Nicola Irwin	Queen's University Belfast
P11	RF: A Dual Functional Surface with Texturing and Nitric Oxide Release for Inhibition of Bacterial Adhesion and Biofilm Formation	Li-Chong Xu	Pennsylvania State University College of Medicine
P12	RF: Surface Topography of Silicon Nitride Affects Antimicrobial and Osseointegrative Properties	Bryan McEntire	Amedica Corporation
P13	RF: Prevention of Bacterial Adhesion by Superhydrophobic Coating Bacterial Behavior and the Associated Gene Expression	Adeline Marguier	IS2M
P14	RF: Anti-Biofilm Amphipathic Peptide D-GL13K Coatings on Dentin for Resisting Degradation of Esthetic Dental Restorations	Conrado Aparicio	University of Minnesota

P15	RF: Bioadhesive Behavior of Oral Biofilm on Dental Composite Surfaces Containing Protein-repellent and Antibacterial Monomers	Mary Anne Melo	University of Maryland School of Dentistry
P16	RF: EDTA Enhances MD Mediated Photodynamic Therapy Antimicrobial Efficacy to Treat Prosthetic Joint Infection	Rita Ramalhete	University College London
P17	Temperature-Responsive Self-Defensive Antibacterial Layer-by-Layer Coatings	Victoria Albright	Texas A&M University
P18	Fluorescence Lifetime Imaging of Membrane Potential Probes for Distinguishing Microbial Phenotypes	Joy Dunkers	National Institute of Standards & Technology
P19	Novel Surface Modification Technique for Infection Prevention in Orthopaedic Fracture Fixation Metallic Implants	Sarah Helms	Clemson University
P20	Antibacterial Activity and Potential Vascularization Effect of SI Modified Surface Prepared by Clicking Peptide Derivative	Guansong Hu	South China University of Technology
P21	Synergistic Antimicrobial Activity of Metals and Graphene Against Clinically Relevant Susceptible and Antibiotic-Resistant Bacteria	Nathalie Karaky	Manchester Metropolitan University
P22	Sensitizing Bacterial Cells to Antibiotics Through Dynamic Topography-Triggered Biofilm Detachment	Sang Won Lee	Syracuse University
P23	Electrostatic Interactions of Antimicrobials with Microgels and Bacteria	Jing Liang	Stevens Institute of Technology
P24	Designing Antibacterial Surfaces by Immobilization of Synthetic Antibacterial Agents	Sasmita Majhi	Indian Institute of Technology Gandhinagar
P25	Synergistic Effect of Monolaurin Lipid Nanocapsules and Antimicrobial Peptides Against <i>Staphylococcus Aureus</i>	René Rozenbaum	University Medical Center Groningen
P26	Comparison of Ag, Zn and B Doped Titanium Coatings Bactericidal Activities	Luciane Santos	Pontifícia Universidade Católica do Paraná
P27	Layer-by-Layer Coating of Temperature-Responsive Micelles on Nanofiber Matrices for On-Demand Release of Antimicrobial Agents	Mary Stack	Stevens Institute of Technology
P28	The Effect of Plasma Proteins on the Hygienic Status of Titanium Based Metals	Louise Tetlow	Manchester Metropolitan University
P29	Poly(Dimethylsiloxane) Stiffness Affects <i>Staphylococcus Aureus</i> Biofilm Growth	Hao Wang	Syracuse University
P30	Nanoparticle-Based Contrast Agents for Bacterial Diagnostic Imaging	Leon Wang	Princeton University