UWEB 2005 SUMMER SYMPOSIUM PROGRAM

Wednesday Afternoon, August 24, 2005

Lectures to take place in Electrical Engineering, room 105

3:30–4:30 Registration

4:30–4:45 Welcome
James Bryers and Buddy Ratner, Summer Symposium Program Co-Chairs

4:45–5:30 Plenary Lecture: The Emerging Field of Sociomicrobiology and a Discussion of Biofilm Formation and Quorum Sensing in Pseudomonas aeruginosa
E. Peter Greenberg, Chair, Microbiology Department, University of Washington

5:30–7:30 UWEB Summer Symposium Reception and Poster Exhibition
(Microsoft Atrium, Paul Allen Computer Science & Engineering Bldg)

Thursday Morning, August 25, 2005

8:00–4:30 Registration

8:00–8:30 Continental Breakfast
(Electrical Engineering, room 303)

Device-Centered Infections

8:30–9:00 Controlling Biofilm Formation on Surfaces
Henny C. van der Mei, University of Groningen

9:00–9:30 Adhesion and Binding of Pseudomonas aeruginosa and Acanthamoeba Species to Contact Lenses
Roya Borazjani, Bausch & Lomb

9:30–10:00 Bacterial Colonization of Central Venous Catheters
Garth James, Montana State University-Bozeman

10:00-10:15 Morning Break
(Electrical Engineering, room 303)

Bacterial Adhesion

10:15–10:45 Effect of Shear-Enhanced Escherichia coli Adhesion on Biofilm Formation
Wendy Thomas, University of Washington

10:45–11:15 Bacterial Surface Polymers and their Role in Bacterial Adhesion
Terri A. Camesano, Worcester Polytechnic Institute

11:15–11:45 Relating Atomic Force Microscopy Measurements to Macro-scale Observations of Bacterial Surface Association
Jayne Morrow, Smith College

11:45–12:15 Structure and Interactions of MSCRAMMs
Jouko Sillanpaa, Texas A&M University Health Science Center

12:15–1:15 Lunch on your own

Student Leadership Council Lunch (Electrical Engineering, room 403)
UWEB 2005 SUMMER SYMPOSIUM PROGRAM

Thursday Afternoon, August 25, 2005

Biofilm Formation

1:15–1:45  Development and Dynamics of *Pseudomonas aeruginosa* Biofilms  
**Tim Tolker-Nielsen**, University of Denmark

1:45–2:15  Self-Generated Diversity Strengthens Biofilm Communities  
**Pradeep Singh**, University of Iowa College of Medicine

2:15–2:45  Studies on *Staphylococcus aureus* Biofilms  
**Mark Shirliff**, University of Maryland

2:45–3:15  Biofilm Growth Produces *P. aeruginosa* Variants Geared Towards Persistence  
**Matthew Parsek**, University of Iowa

3:15–3:30  *Afternoon Break*  
*(Electrical Engineering, room 303)*

3:30–4:00  Cross-talk Between *Pseudomonas aeruginosa* and the PMN’s  
**Michael Givskov**, University of Denmark

4:00–4:30  Quorum-Sensing and *Pseudomonas aeruginosa* Biofilms  
**Victoria Wagner**, University of Rochester Medical School

4:30–5:00  Life in the Slow Lane: Adaptive Responses in *Staphylococcus aureus* Biofilms  
**Mark Smeltzer**, University of Arkansas for Medical Sciences

5:35  Bus loads/leaves for Tillicum Village

10:00  Bus loads/leaves from Tillicum Village, Savor the Northwest

10:30  Bus returns to University Inn and Silver Cloud Inn

Friday Morning, August 26, 2005

8:00–3:30  Registration

8:00–8:30  *Continental Breakfast*  
*(Electrical Engineering, room 303)*

Biofilm Diagnostics

8:00–8:30  Imaging and Diagnosing Bacterial Biofilm Infections Associated with Host Tissue and Foreign Bodies  
**Paul Stoodley**, Allegheny-Singer Research Institute

8:30–9:00  *In-Situ* Monitoring of Metabolism in Environmental and Dental Biofilms  
**Jeffrey McLean**, Pacific Northwest Labs

9:00–9:30  Nanoscale forces at the heart of *Staphylococcus* biofilms on medical implants  
**Steven Lower**, The Ohio State University

9:30–10:00  Bridging the Gap: Oral Biofilms *in vitro* and *in vivo*  
**Robert Palmer**, National Institute of Dental Craniofacial Research

10:00–10:15  *Morning Break*  
*(Electrical Engineering, room 303)*
UWEB 2005 SUMMER SYMPOSIUM PROGRAM

Friday Morning, August 26, 2005

Substratum Nano-modifications to Control Bacterial Adhesion

10:15–10:45  Surface-Patterned Poly(ethylene glycol) Nanohydrogels to Control Bacterial Adhesion  
Peter Krsko, Stevens Institute of Technology

10:45–11:15  MBEC Assay as a High Throughput Diagnostic Test for Biofilm Susceptibility  
Howard Ceri, University of Calgary

11:15–11:45  Ultrasonically Controlled Release of Ciprofloxacin from Self-Assembled Coatings on pHEMA  
Hydrogels for Pseudomonas aeruginosa Biofilm Prevention  
Patrick Norris, Montana State University-Bozeman

Anti-Infective Materials

11:45–12:15  Dormancy and Antibiotic Tolerance in P. aeruginosa Biofilms  
Philip Stewart, Montana State University-Bozeman

12:15–1:45  Lunch on your own

Friday Afternoon, August 26, 2005

Anti-Infective Materials continued

1:45–2:15  Ultrasonic Control of Biofilms  
William Pitt, Brigham Young University

2:15–2:45  Anti-Biofilm Surface Coatings  
Ross Carlson, Montana State University-Bozeman

2:45–3:15  Chlorine Dioxide for the Prevention of Biomaterial Associated Infections  
Stuart Williams, University of Arizona

3:15–3:30  Afternoon Break  
(Electrical Engineering, room 303)

Novel Strategies for Biofilm Control

3:30–4:00  Infections on Contact Lenses and Novel Anti-Biofilm Strategies  
Mark Wilcox, The University of New South Wales

4:00–4:30  Prevention of Staphylococcal Biofilms using Quorum Sensing Inhibitors  
Naomi Balaban, Tufts University

4:30–5:00  PolyNSAIDs and PolyAntibiotics: Designing the Next Generation of Biodegradable Coatings  
Kathryn Uhrich, Rutgers University

5:00–5:30  Surface Technologies to Impact Biofilm Formation  
Buddy Ratner, University of Washington

5:30–5:45  Concluding Remarks  
James Bryers, University of Washington