Monday
February 6

6:00–8:30 p.m.
Pre-registration and welcome reception
Hilton Garden Inn, Bozeman

Tuesday
February 7

7:30–8:00 a.m.
Registration and continental breakfast
Hilton Garden Inn—Larkspur Foyer

8:00–8:10
Introductory remarks
Larkspur Ballroom
Tom McCoy, Vice President, Research, Creativity, & Technology Transfer, MSU
Paul Sturman, CBE Industrial Coordinator
Harsh Trivedi, IA Chair, Colgate-Palmolive
Phil Stewart, CBE Director

SESSION 1:
Oral Biofilms

8:10–8:20
Session introduction
Garth James, CBE Medical Projects Manager; Associate Research Professor, Chemical & Biological Engineering, MSU

8:20–8:50
Antimicrobial penetration and efficacy in an in vitro oral biofilm model
Phil Stewart

8:50–9:20
Biofilms in dental unit waterlines
Alessandra Agostinho, DDS, CBE Research Scientist

9:20–9:50
The drip-flow reactor as a test system for oral care products
Garth James

9:50–10:20 Break

10:20–10:50
Investigations into mobile genetic elements and horizontal gene transfer within oral biofilms
Adam Roberts, Lecturer, Microbial Diseases, UCL Eastman Dental Institute, London

SESSION 2:
Thermal Biofilms

10:50–11:00
Session introduction
Brent Peyton, Professor, Chemical & Biological Engineering, CBE; Associate Director, Thermal Biology Institute, MSU

11:00–11:30
Transport and microbial consumption of oxygen in acidic geothermal iron-oxide mats
Hans Bernstein, PhD student, Chemical & Biological Engineering, CBE

11:30–12:00
Extremophilic fungi for sustainable energy
Rich Macur, Research Assistant Professor, Chemical & Biological Engineering, CBE
Mark Kozubal, Postdoctoral Researcher, Thermal Biology Institute, MSU

12:00–1:00
Catered lunch—Hilton Garden Inn

SESSION 3:
Industrial Biofilms

1:00–1:10
Session introduction
Paul Sturman

1:10–1:45
Innovative use of biofilms in water and wastewater treatment
Zbigniew Lewandowski, Professor, Civil Engineering, CBE

1:45–2:15
Metabolic cooperation in methanogenic biofilms: Cellular biomass or cellular energy
Kristen Brileya, PhD student, Microbiology, CBE

Wednesday
February 8

7:30–8:00 a.m.
Registration and continental breakfast
Hilton Garden Inn—Larkspur Foyer

SESSION 4:
Green Biofilm Control Strategies

8:00–8:05
Session introduction
Phil Stewart

8:05–8:50
Biofilm shielding: The role of quorum sensing, rhamnolipids, and eDNA
Michael Givskov, Professor, International Health, Immunology, & Microbiology, University of Copenhagen; Professor, Singapore Centre on Environmental Life Sciences Engineering
8:50–9:20
Bioinspired topographies for bacterial inhibition strategy
Rhea May, Microbial Research Associate, Sharklet Technologies, Inc.

9:20–9:50
Microbe-microbe interactions and application to MBR flux enhancement
Jonathan Leder, Technical Director, Novozymes Biologicals, Inc.

9:50–10:20 Break

SESSION 5:
Biofilms and Host Responses

10:20–10:30
Session introduction
Garth James

10:30–11:00
Considering the host immune response for vaccine development against Staphylococcus aureus biofilms
Mark Shirtliff, Associate Professor, Microbial Pathogenesis, Dental School, University of Maryland, Baltimore

11:00–11:30
Application of the nematode Caenorhabditis elegans as a model for multi-kingdom biofilm interactions of Staphylococcus epidermidus and Candida albicans
Birthe Venø Kjellerup, Assistant Professor, Microbiology, Goucher College, Baltimore

11:30–12:00
Animal models useful for efficacy screening of antimicrobial and anti-biofilm drugs and coatings
Paul Attar, President, BRIDGE Preclinical Testing Services

12:00–12:10
Meeting Wrap-up

See you at the
NEXT MEETING:
July 17–19, 2012