

Montana Biofilm S&T Meeting FINAL AGENDA: July 12-14, 2011 Center for Biofilm Engineering

07/12/2011

Monday July 11

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

Tuesday July 12

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

8:00–8:15 Introductory remarks Larkspur Ballroom Paul Sturman, CBE Industrial Coordinator Harsh Trivedi, IA Chair, Colgate-Palmolive Phil Stewart, CBE Director

<u>SESSION 1:</u> Biofilm Dispersion

8:15–9:00 Escape from the matrix! Richard Losick, Professor, Biology, Harvard University

9:00–9:40 Marine alkaloid derivatives that inhibit and disperse bacterial biofilms

Christian Melander, Co-Founder & Chief Research Officer, Agile Sciences Associate Professor, Chemistry, North Carolina State University

9:40–10:10 Imaging biofilm dispersion...or not! Betsey Pitts, Research Associate & Microscope Facilities Manager, CBE

10:10-10:40 Break

10:40-11:20 Dispersal of methicillin-resistant *Staphylococcus aureus* biofilms Alex Horswill, Associate Professor,

Alex Horswill, Associate Professor, Microbiology, University of Iowa 11:20–11:50 Immersed boundary model of biofilm deformation and detachment in response to fluid flow

Jeff Heys, Assistant Professor, Chemical & Biological Engineering, MSU

11:50–1:00 Catered lunch at the Hilton Garden Inn

CBE Open House

CBE Laboratories, 3rd Floor EPS Building, MSU

1:50–3:30 Lab demonstrations

3:30–5:00 Poster session

*Detailed schedule provided at registration

Wednesday July 13

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

<u>SESSION 2:</u> Metals, Microbes & Microbially Influenced Corrosion (MIC)

8:00–8:30 Methods for the study of extracellular electron transfer in electrode-associated biofilms using *Geobacter sulfurreducens* as a model

Ashley Franks, Research Assistant Professor, University of Massachusetts Amherst; Senior Lecturer, La Trobe University, Australia

8:30-9:00

Chromium (VI) reduction by environmental microbes – Influence of common soil constituents and carbon sources on chromium (VI) reduction and toxicity

Robin Gerlach, Associate Professor, Chemical & Biological Engineering, CBE

9:00-9:30

In situ microbial reduction of selenium in backfilled phosphate mine overburden, S.E. Idaho

Lisa Kirk, PhD, Land Resources & Environmental Science, CBE

9:30-10:00 Treatment of mine water using MBBR technology

Caroline Dale, Biological Principal Engineer, Veolia Water Scott Benowitz, P.E., President, Water Engineering Technologies, Inc.

10:00-10:30 Break

10:30–11:00 Investigating biofilm-influenced corrosion using molecular tools Iwona Beech, Professor, Botany & Microbiology, University of Oklahoma

11:00-11:30 Special Presentation: Bacteria in the food industry biofilm, survival, control Trond Møretrø, PhD, Research Scientist, Nofima Food, Norway

11:30–12:00 State of the CBE address Phil Stewart

12:00–1:00 Catered lunch at the Hilton Garden Inn

SESSION 3: Systems Biology

1:00–1:30 Transcriptome analysis of biofilm physiology Phil Stewart

1:30–2:00 Characterization of biofilm heterogeneity using transcriptome approaches

Mike Franklin, Associate Professor, Microbiology, CBE

2:00-2:30

Proteomic and physiological support for the stoichiogenomic analysis of metabolic networks under nutrient limitation

Reed Taffs, PhD Candidate, Chemical & Biological Engineering, CBE

2:30–3:15 Medical devices: The changing FDA landscape Craig Coombs, President, Coombs Medical Device Consulting

3:15-3:30 Break

3:30–4:30 CBE Industrial Associates Business Meeting

6:00-9:00 Banquet Rockin TJ Ranch, Bozeman

Thursday July 14

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

SESSION 4: Biofilm Methods

8:00–8:30 Standard biofilm methods: A roadmap to anti-biofilm claims for medical devices Nick Allan, Contract Research Manager, Innovotech, Inc.

8:30–9:00 Using equivalence testing in microbiology Albert Parker, Statistician & Research Engineer, CBE

SESSION 5: Medical Biofilms

9:00-9:30 Selective killing of biofilm pathogens Peter Suci, Research Assistant Professor, Plant Sciences & Plant Pathology, CBE

9:30-10:00 Break

10:00-10:30 Biofilms, oxygen, and wound healing Garth James, CBE Medical Projects Manager, Associate Research

Professor, Chemical & Biological Engineering, MSU

10:30-11:00

Intracellular pathogens and host cytoskeletal structures

Kelly Kirker, Research Scientist, CBE

11:00–11:30

Electric current effects on biofilm Liz Sandvik, PhD Candidate, Chemical & Biological Engineering, CBE

11:30–11:45

Meeting Wrap-up

2012 Meeting Dates: February 7–8, 2012 July 17–19, 2012