Montana Biofilm S&T Meeting
AGENDA: February 5-6, 2013

Center for Biofilm Engineering

Monday
February 4

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

9:15–9:45
Study of the human skin microbiome using metagenomic and genomic approaches
Huiying Li, Assistant Professor, Molecular & Medical Pharmacology, University of California, Los Angeles

9:45–10:15 Break

SESSION 2: Industrial Biofilms

10:15–10:20
Session introduction
Paul Sturman

10:20–10:50
Manganese sulfide inclusions and pit initiation in carbon steel during microbially influenced corrosion: Pits initiate in the immediate surroundings of the inclusions
Recep Avci, Director, Imaging & Chemical Analysis Laboratory (ICAL), Research Professor, Physics, MSU

10:50–11:20
Characterization of Desulfovibrio alaskansis G20 physiology and biofilm metabolism on glass and steel surfaces
Greg Krantz, PhD student, Microbiology, CBE

11:20–11:45
Development and implementation of a new treatment for biofilm remediation in industrial systems
Adrian Denvir, Manager, Water Treatment Science and Technology, NCH Corporation

11:45–12:10
Catered lunch—Hilton Garden Inn

12:15–1:10
Presentation of student awards
Nancy Characklis & Phil Stewart

Tuesday
February 5

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

8:00–8:10
Introductory remarks
Larkspur Ballroom
Paul Sturman, CBE Industrial Coordinator
Tony Rook, IA Chair, The Sherwin-Williams Company
Phil Stewart, CBE Director

SESSION 1: Skin Biofilms

8:10–8:15
Session introduction
Garth James, CBE Medical Projects Manager; Associate Research Professor, Chemical & Biological Engineering, MSU

8:15–8:45
Biofilm in comedonal and inflammatory Acne vulgaris: In vivo identification and characterization
Manisha Patel, MD, Assistant Professor, Dermatology, School of Medicine, Johns Hopkins University

8:45–9:15
Imaging biofilms in tissue
Garth James

SESSION 3: Environmental/Mineral Biofilms

1:15–1:25
Session introduction
Brent Peyton, Professor, Chemical & Biological Engineering, CBE; Associate Director, Thermal Biology Institute, MSU

1:25–1:50
Microbial ecology of mine waste environments
Lisa Kirk, Research Scientist, CBE

1:50–2:15
Why the mining industry needs microbiologists
Chris Kennedy, Senior Consultant, SRK Consulting

2:15–2:40
Planktonic and biofilm community dynamics in situ
Kara De León, PhD student, Microbiology, CBE

Special Presentations:

2:40–3:05
2012 ASM Biofilms meeting digest
Phil Stewart

3:05–3:15
Update: Biofilm methods index
Darla Goeres, Assistant Research Professor, Chemical & Biological Engineering, CBE

Darla Goeres describes the Single Tube Method in this short video:
http://youtu.be/37VDD3JiJiQ

Laboratory open house and poster session
3:30–5:00
CBE Laboratories, 3rd Floor EPS Building
Wednesday
February 6

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

SESSION 4:
Pathogen Persistence in Biofilms

8:00–8:25
Session introduction/overview:
Pathogen persistence in biofilms
Anne Camper, Associate Dean,
College of Engineering, Professor,
Civil Engineering, CBE

8:25–8:55
Root associated biofilms: Physical gradients and nutrient cycling
Chris Allen, PhD student, Civil Engineering, CBE

8:55–9:25
Pathogen-biofilm-root interactions for common constructed wetland plants
Rachel VanKempen-Fryling, PhD student, Microbiology, CBE

9:25–9:55 Break

SESSION 5:
Next Generation Biomaterials

9:55–10:05
Session introduction
Phil Stewart

10:05–10:35
A porous biomaterial approach to biofilm infection control
Andrew Marshall, Director & Chief Technology Officer, Healionics

10:35–11:05
Bioinspired slippery surfaces with robust and persistent anti-biofouling performance
Ben Hatton, Assistant Professor, Materials Science & Engineering, University of Toronto

11:05–11:35
In vivo analysis of a novel antimicrobial coating to prevent biofilm implant-related infection
Dustin Williams, Postdoctoral Fellow, Department of Orthopaedics, University of Utah

11:35–12:05
Inhibiting bacterial biofilm formation on stainless steel 316L using self-assembled monolayers
Kristen Kruszewski, Research Chemist, PPG Industries

12:05–12:15
Meeting Wrap-up

See you at the
NEXT MEETING:
July 16–18, 2013

Time lapse screenshots obtained from the CBE’s newly developed Treatment Flow Cell, designed to image antibacterial treatments on live biofilms. Imaging by B Pitts & L Lorenz.