Montana Biofilm S&T Meeting  
Final AGENDA: July 19–21, 2016  
Center for Biofilm Engineering

Monday  
July 18

6:00–8:30 pm  
Registration & welcome reception  
Larkspur Foyer, Hilton Garden Inn  
Bozeman

10:20–10:50  
Effect of selenite on the morphology and respiratory activity of *Phanerochaete chrysosporium* biofilms  
Erika Espinosa-Ortiz, Postdoctoral Research Associate, CBE

10:50–11:20  
Volatile organic compounds of a filamentous fungal mat at varying oxygen conditions  
Heidi Schoen, PhD candidate, Chemical & Biological Engineering, MSU, CBE

CBE Open House:  
Lab demonstrations and poster session  
2:45–4:45  
3rd Floor EPS Building, MSU  
Schedule available onsite

Tuesday  
July 19

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

8:00–8:10  
Introductory remarks  
Larkspur Ballroom  
Paul Sturman, CBE Industrial Coordinator  
Matthew Fields, CBE Director  
Chuck Pettigrew, Chair, CBE Industrial Associates Program; Principal Scientist, Procter & Gamble, Mason, OH

10:00–10:35  
A reproducible protocol for growing relevant filamentous fungal biofilms for industrial consumer product applications  
Julia Kerrigan, Associate Professor, Mycology, Clemson University, Clemson, SC

11:20–11:50  
*Candida* and *Malassezia* yeasts in biofilms  
Garth James, Assoc. Research Professor, Chemical & Biological Engineering, MSU; Manager, Medical Biofilms Laboratory, CBE

SESSION 2:  
Industrial Biofilms

1:00–1:05  
Session introduction  
Paul Sturman

1:05–1:35  
Copper: An effective antimicrobial?  
Colin Anderson, R&D Director, American Chemet, E. Helena, MT

1:35–2:00  
Integrated molecular, physiological, and in silico characterization of two extremophilic *Halomonas* isolates  
Ross Carlson, Professor, Chemical & Biological Engineering, MSU, CBE; and Chuck Pettigrew

2:00–2:25  
Acoustic pressure shock wave technology successfully disrupts medical and non-medical biofilms  
Iulian Cioanta, Vice President, R&D, SANUWAVE Health, Inc. Alpharetta, GA

Wednesday  
July 20

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

SESSION 3:  
Biofilm Methods

8:00–8:40  
Methods to assess biofilm prevention on surface modified urinary catheters  
Darla Goeres, Assoc. Research Professor, Chemical & Biological Engineering, MSU; Manager, Standardized Biofilm Methods Laboratory, CBE

8:40–9:10  
EPA Regulatory Update: Use of the Single Tube Method to support biofilm claims for antimicrobial products  
Rebecca Pines, Biologist, Microbiology Laboratory Branch, Office of Pesticide Programs (OPP), US EPA, Fort Meade, MD

9:10–9:40  
Using statistical confidence and power to assess performance standards for biofilm claims using the Single Tube Method  
Al Parker, Assistant Research Professor, Mathematical Sciences, MSU; Bio-statistician, CBE

9:40–10:10  
Networking Break

10:10–10:40  
Quantifying biofilm development and structure with image analysis and high resolution 3D imaging  
Curtis Larimer, Postdoctoral Fellow, Pacific Northwest National Laboratory, Richland, WA
SESSION 4: Multi-Species Biofilms

1:15–1:20
Session introduction
Anne Camper, Regents Professor, Civil Engineering, Associate Dean, College of Engineering, MSU, CBE

1:20–1:50
The ecology of nitrification in water systems: A consortium of organisms and metabolisms
Anne Camper

1:50–2:20
Forced cooperation leads to improved productivity in a multispecies biofilm
Laura Camilleri, PhD student, Microbiology & Immunology, MSU, CBE

2:20–2:50
Biofilms enhance survival in extreme environments
Heidi Smith, Postdoctoral Researcher, CBE

2:50–3:20
Effects of chlortetraxidene treatments on single and mixed species biofilms of Streptococcus mutans and Lactobacillus acidophilus as well as S. mutans and Actinomyces naeslundii
Rosa Oliveira, Postdoctoral Res., Araraquara School of Dentistry, UNESP–Univ. Estadual Paulista, Araraquara, São Paulo, Brazil

3:20–3:30 Break

3:30–5:00
Business Meeting
Hilton Garden Inn

6:00
Dinner/Banquet
Rockin' TJ Ranch, Bozeman

SESSION 5: Wound Biofilms

8:00–8:05
Session Introduction
Garth James

8:05–8:40
Biofilm-related oxygen consumption in wounds
Garth James

8:40–9:10
Chronic wounds in diabetic patients: Biochemical association between skin microbiome and metabolic landscape
Mary Cloud Ammons, Assistant Research Professor, Chemistry & Biochemistry, MSU

9:10–9:40
Predictive multiscale modeling of microbial biofilm consortia
Ross Carlson

9:40–10:10
Bacterial fitness determinants in chronic wound infections: Correlation with in vitro biofilm fitness
Sarah Morgan, Sr. Postdoctoral Fellow, Microbiology, University of Washington, Seattle, WA

SESSION 6: Device-Related Biofilms

10:40–10:45
Session Introduction
Garth James

10:45–11:15
Understanding E. coli biofilms on urinary catheters: Are there CAUTI-specific characteristics?
Maria Hadji franiskou, Assistant Professor, Pathology, Microbiology, & Immunology, School of Medicine, Vanderbilt University, Nashville, TN

11:15–11:45
Strategies to treat intracellular and biofilm forming Staphylococcus aureus in orthopedic infections
Devendra Dusane, Postdoctoral Researcher, Microbial Infection & Immunity, The Ohio State University, Columbus, OH

11:45–12:15
Preclinical wound biofilm models: Establishment, consequences, and topical antimicrobial effects
Eric Roche, R&D Manager, Smith & Nephew, Fort Worth, TX

12:15–12:25
Meeting Wrap-up