Monday
July 17
6:00–8:30 pm
Registration & welcome reception
Larkspur Foyer, Hilton Garden Inn
Bozeman

Tuesday
July 18
7:30–8:00 am
Registration & continental breakfast
Larkspur Foyer, Hilton Garden Inn

8:00–8:10
Introductory remarks
Larkspur Ballroom
Matthew Fields, CBE Director
Paul Sturman, CBE Industrial Coordinator
Leticia Vega, Chair, CBE Industrial Associates Program;
International Scientist, NASA, Houston, TX

SESSION 1: Food Biofilms
8:10–8:40
Biofilm formation in draught beer dispense lines
Kelli Buckingham-Meyer, Research Assistant III, CBE
Lindsey Lorenz, Research Assistant III, CBE

8:40–9:10
Biofilms in the dairy industry
Carolina Mateus, R&D Director
MQAH, DeLaval, Kansas City, MO

9:10–9:40
Creating a test system for the removal of biofilms using microfiber wipes
Fei San Lee, Undergraduate Student, Chemical & Biological Engineering, MSU, CBE

9:40–10:10 Networking Break

SESSION 2: Biofilm Imaging
10:10–10:35
Live/dead staining challenges
Elinor Pulcini, Assistant Research Professor, Chemical & Biological Engineering, MSU, CBE

10:35–11:05
BiyoTrap: A rapid, efficient, and cost-effective bacteria concentrator
Recep Avci, Associate Research Professor, Physics; Director, Image & Chemical Analysis Laboratory (ICAL), MSU

11:05–11:30
Structuring biofilms using 3D printing
Jim Wilking, Assistant Professor, Chemical & Biological Engineering, MSU, CBE

11:30–12:00
Imaging mass spectrometry: A technology to advance understanding and diagnosis of bacterial infections
Tim Hamerly, Postdoctoral Associate, Infectious Disease & Immunology, University of Florida, Gainesville, FL

1:40–2:05
ISO Method 846 Part C: Evaluation of plastic surfaces for the ability to support bacterial growth
Natalya Polukoff, Undergraduate Student, Microbiology & Immunology, MSU, CBE

2:05–2:35
Production and analysis of a Bacillus subtilis biofilm with spores using a modified colony biofilm model
Laura Wahlen, Research Assoc. III, Baxter Healthcare, Chicago, IL

CBE Open House: Lab demonstrations and poster session
3:00–5:00
3rd Floor Barnard Hall (formerly EPS), MSU
Schedule available onsite

Wednesday
July 19
7:30–8:00 am
Registration & continental breakfast
Larkspur Foyer, Hilton Garden Inn

SESSION 4: Biofilms in the Built Environment
8:00–8:30
Building microbiome control
Jordan Peccia, Professor, Chemical & Environmental Engineering, Yale University, New Haven, CT

8:30–9:00
Mold contamination of indoor materials for the built environment: Shipping, storage and preservation aspects
Daniel Price, Director, Microbiology, Interface Inc., Atlanta, GA

9:00–9:30
Living lab studies on biofilms in Finland
Minna Keinanen-Toivola, Research Manager, Satakunta Univ. of Applied Sciences, Pori, Finland
9:30–10:00  Networking Break

10:00–10:45  Characterizing biofilm growth on elastomeric roof coatings subjected to ponded waters
Joseph Moore, Senior Chemist, Dow Microbial Control, Collegeville, PA

10:45–11:15  A multi-scale modeling framework for biofilm development
Ting Lu, Assistant Professor, Bioengineering, University of Illinois at Urbana-Champaign, IL

11:15–11:40  State of the CBE
Matthew Fields

11:40–11:50  Presentation of CBE awards
Matthew Fields

11:50–12:50  Catered lunch, Hilton Garden Inn

SESSION 5: Industrial Biofilms

12:50–1:20  Biofilms in metalworking fluids
Christine Foreman, Associate Professor, Chemical & Biological Engineering, MSU, CBE

1:20–1:50  Bulk phase resource ratio alters electron transfer mechanisms in sulfate-reducing biofilms grown on metal
Greg Krantz, PhD Candidate, Microbiology & Immunology, MSU, CBE

1:50–2:15  Organic molecules and biofilm-driven processes of metal deterioration: Exploring an uncharted territory
Iwona Beech, Research Professor, Microbiology & Plant Biology, University of Oklahoma, Norman, OK

2:15–2:40  Metabolomic and genomic imaging as novel ways of investigating biofilm-influenced processes in industrial systems and in medical settings
Iwona Beech

2:40–3:05  Particle size impacts carrying-capacity for biofilm via reduction of free pore space and resources
Sara Altenburg, Fields Lab Manager, CBE

3:05–3:30  Break

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

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

Thursday
July 20

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

SESSION 6: Medical Biofilms

8:00–8:30  Chemical and biological gradients in biofilm infections
Phil Stewart, Professor, Chemical & Biological Engineering, MSU, CBE

8:30–9:00  Interactions of human neutrophils with nascent Staphylococcus aureus biofilm
Niranjan Ghimire, Postdoctoral Fellow, Wake Forest University, Winston-Salem, NC

9:00–9:30  Do biofilms play a role in Lyme disease?
Garth James, Associate Research Professor, Chemical & Biological Engineering, MSU; Manager, Medical Biofilms Laboratory, CBE

9:30–10:00  Networking Break

10:00–10:30  Detection and treatment of bacterial biofilms in chronic wounds
Greg Schultz, Professor, Obstetrics & Gynecology, University of Florida, Gainesville, FL

10:30–11:00  Perspectives, controversies, & research needs regarding perioperative antimicrobial prophylaxis for implantable medical devices
Roger Wixtrom, President, LSCI Solutions, Springfield, VA

11:00–12:00  Advancing biofilm removal via surgical wound lavage—A collaborative development
Matt Myntti, Vice President, Research & Development, Next Science, Jacksonville, FL
Chris Hosler, Associate Brand Director, Zimmer Biomet Surgical, Warsaw, IN

12:00–12:10 pm  Meeting wrap up