### 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
  - Elínor Pulcini, Assistant Research Professor, Chemical & Biological Engineering, MSU, CBE

- **10:35–11:05**
  - BioTrap: 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

- **12:00–1:00**
  - Catered lunch, Hilton Garden Inn

### SESSION 3: Biofilm Methods

- **1:00–1:15**
  - Drip flow reactor training video: Second video in the SBML methods technology transfer initiative
  - Darla Goeres, Associate Research Professor, Chemical & Biological Engineering, MSU; Manager, Standardized Biofilm Methods Laboratory, CBE

- **1:15–1:40**
  - Understanding the development of mixed fungal-bacterial biofilms
  - Erika Espinosa-Ortiz, Postdoctoral Research Associate, CBE

### 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

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

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