



# Montana Biofilm Science & Technology Meeting



July 15-17, 2026



Hilton Garden Inn Bozeman  
**Draft AGENDA**

5/1/2026 4:32 PM

## Tuesday July 14

**6:00–8:30 pm**  
**Registration & Welcome Reception** Larkspur Foyer

## Wednesday July 15

**7:00–8:00 am Coffee Talk**  
*Optional discussion hour for members & CBE leadership*  
Goldenrod Ballroom

**7:30–8:00 am**  
**Registration & Continental breakfast** Larkspur Foyer

**8:00–2:55**  
**Meeting** Larkspur Ballroom

**8:00-8:15**  
**Opening Remarks**  
Matthew Fields, Director, CBE;  
Professor, Microbiology &  
Cell Biology, MSU

**8:15-8:45**  
**IA Introductions**  
Darla Goeres, Coordinator of  
Industrial Development, CBE

### **SESSION 1: Challenging Assumptions, Discovering Opportunity**

**8:45-9:00**  
**Session Introduction**  
Matthew Fields

**9:00-9:30**  
**Biofilm infection: Time to zoom out?**  
Phil Stewart, Regents Professor,  
Chemical & Biological Eng.,  
MSU, CBE

**9:30-10:00**  
**Detecting who's there: Species identification from night skies to microscopic surfaces**  
Kathi Irvine, Research  
Statistician, US Geological  
Survey

### **10:00-10:30 Networking Break**

**10:30-11:00**  
**Bias in artificial intelligence: The good, the bad, and the misunderstood**  
John Sheppard, Distinguished  
Professor, Gianforte School of  
Computing, MSU

**11:00-11:30**  
**Machine learning challenges in analyzing 3D cellular structures in biology**  
Joe Piccone, Professor, Electrical  
& Computer Eng., Temple  
University

**11:30-12:00**  
**Panel:**  
Session Speakers  
Moderator: Matthew Fields

### **12:00-1:30 Networking Lunch**

### **SESSION 2: Biofilms & Food Safety**

**1:30-1:35**  
**Session Introduction**  
Ghazal Vahidi, Postdoctoral  
Researcher, CBE

**1:35-2:00**  
**From interactions to systems: Multispecies biofilms in food and environmental contexts**  
Henriette Lyng Røder, Associate  
Professor, Food Science,  
University of Copenhagen

**2:00-2:25**  
**Multi-species biofilms, *Listeria monocytogenes*, food processing-built environment, environmental microbiota**  
M. Laura Rolón, Assistant  
Professor, Food Science &  
Nutrition, California Polytechnic  
State University \*Young  
Investigator Awardee

**2:25-2:50**  
**The challenge to kill surface attached bacteria: A piece of plastic as barrier to EU-market access**  
Helmut Hirt, Senior  
Microbiologist, DeLaval

**2:50-2:55**  
**Closing remarks**  
Matthew Fields, Darla Goeres

**2:55-3:15**  
**Transport to CBE Laboratories**

### **CBE Poster Session**

**3:15–5:15**  
3<sup>rd</sup> Floor, Barnard Hall, MSU  
Full schedule available onsite

## Thursday July 16

**7:30–8:15 am Discussion**  
*Join Al Parker, Heidi Smith & collaborators from Temple University for a discussion on the NSF-funded Biofilm Image Library grant. Your input is welcome!* Larkspur Ballroom

**8:00–9:00 am**  
**Networking Continental Breakfast** Larkspur Foyer

**8:00-9:00 CBE & IA Connect**  
*Optional networking hour for attendees & CBE researchers*  
Open

**9:00–4:15**  
**Meeting** Larkspur Ballroom

**9:00-9:05**  
**Opening remarks**  
Matthew Fields, Darla Goeres

### **SESSION 3: Medical Biofilms**

**9:05-9:10**  
**Session Introduction**  
Kelly Kirker, Assistant Research  
Professor, Chemical &  
Biological Eng., MSU, CBE

(Continues on next page)

**9:10-9:35**

**A microfluidic approach to evaluating single-cell heterogeneity**

Emma Loveday, Assistant Professor, Microbiology & Cell Biology, MSU, CBE

**9:35-10:00**

**Biofilm physiology in the absence of oxygen**

Melanie Spero, Assistant Professor, Institute of Molecular Biology, University of Oregon

**10:00-10:30 Networking Break**

**10:30-10:50**

***P. aeruginosa* & *S. aureus* physiology: A microcalorimetry perspective**

Campbell Putnam, PhD Student, Chemical & Biological Eng., MSU, CBE

**10:50-11:15**

**Deciphering *P. aeruginosa*-*S. aureus*-host interactions & the intracellular survival using a new in vitro CF biofilm model: Implications for antibiotic evasion & infection relapse**

Olivia Pereira, Assistant Professor, Biological Engineering, University of Minho

**11:15-11:30**

**CBE Awards & Milestones**

**11:30-11:35**

**Closing remarks**

Matthew Fields, Darla Goeres

**11:35-12:55 Networking Lunch**

**SESSION 4: Built Environment & Engineered Systems**

**12:55-1:00**

**Session Introduction**

Chelsea Heveran, Assistant Professor, Mechanical & Industrial Eng., MSU, CBE

**1:00-1:25**

**Disrupting Legionella's protected empire in premise plumbing**

Jeff Rogers, VP, Science & Technology, IWC Innovations

**1:25-1:50**

**Magnetic nanoparticles for biofilm removal**

Irene Andreu, Assistant Professor, Chemical, Biomolecular & Materials Engineering, University of Rhode Island \*Young Investigator Awardee

**1:50-2:10 Networking Break**

**2:10-2:30**

**Title TBA**

Ethan Viles, PhD Student, Mechanical & Industrial Eng., MSU, CBE

**2:30-2:50**

**Title TBA**

Adnina Rudaiba, PhD Student, Civil Engineering, MSU, CBE

**SESSION 5: CDC & FDA Unpacked for Industry**

**2:50-2:55**

**Session Introduction**

Al Parker, Biostatistician, CBE; Associate Research Professor, Mathematical Science, MSU

**2:55-3:25**

**Biofilms & public health**

Joe Sexton, Team Lead, Biofilm & Microbial Control Laboratory, CDC

**3:25-3:55**

**FDA pulse check: Blink twice if you're not ok**

Brandon Kitchel, Director, Regulatory Affairs, BD Medical

**3:55-4:10**

**Session Discussion**

**4:10-4:20 Short Break**

**Strategic Planning Meeting for CBE Members**

**4:20-5:20**

Hilton Garden Inn

**BBQ Dinner**

**6:00-9:00 pm**

Big Yellow Barn, Bozeman

**Friday  
July 17**

**8:00-8:30 am**

**Cont. breakfast** Larkspur Foyer

**8:30-11:55 am**

**Meeting** Larkspur Ballroom

**8:30-8:35**

**Opening Remarks**

Matthew Fields, Darla Goeres

**SESSION 6: Emerging Technologies in Biofilm Research**

**8:35-8:55**

**Session Introduction**

Chris Jones, PI, Standardized Biofilm Methods Lab, CBE

**8:55-9:25**

**Dry surface biofilms: Development of a relevant in vitro model for disinfectant challenge**

James Folsom, Sr. Research Microbiologist, Arxada

**9:25-9:55**

**Title TBD**

Liz de Ora Ortiz, Postdoctoral Researcher, MSU, CBE

**9:55-10:15**

**Title TBD**

Molly Shreve, PhD Student, Microbiology & Cell Biology, MSU, CBE

**10:15-10:45 Networking Break**

**10:45-11:05**

**Single-cell RNA sequencing reveals transcriptional heterogeneity in *Pseudomonas***

Nasibeh Arabameri, PhD Student, School of Life Sciences, UNLV

**11:05-11:25**

**Title TBD**

Isaak Thornton, Postdoctoral Researcher, CBE

**11:25-11:45**

**Title TBD**

Kathryn Zimlich, Postdoctoral Researcher, Dartmouth College

**11:45-11:55**

**Closing Remarks**

Matthew Fields, Darla Goeres

CBE gratefully acknowledges the support from our meeting sponsor:

SYMCEL<sup>o</sup>