Montana Biofilm Science & Technology Meeting

July 15-17, 2026

Hilton Garden Inn Bozeman

9/11/2026 2:21 PM

Final AGENDA

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
Bias in artificial intelligence: The good, the bad, and the misunderstood
John Sheppard, Distinguished Professor, Gianforte School of Computing, MSU

9:30-10:00
Detecting who's there: Species identification from night skies to microscopic surfaces
Kathryn (Kathi) Irvine, Research Statistician, Branch Chief, USGS

10:00-10:30 Networking Break

10:30-11:00
Biofilm infection: Time to zoom out?
Phil Stewart, Regents Professor, Chemical & Biological Eng., MSU, CBE

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

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 promoted tolerance of *Listeria monocytogenes* to sanitizers in food-processing built environments
M. Laura Rolón, Asst. 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

CBE Poster Session

3:15–5:15
3rd Floor, Barnard Hall, MSU
Schedule available onsite

2:55-3:15
Transport to CBE Laboratories

Thursday July 16

7:30–8:15 am Discussion
Join Al Parker, Heidi Smith and collaborators from Temple University for a discussion on the NSF-funded Biofilm Image Library grant. All 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

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, Asst. Research Professor, Chemical & Biological Eng., MSU, CBE

9:10-9:35
A microfluidic approach to evaluating single-cell heterogeneity
Emma Loveday, Asst. Professor, Microbiology & Cell Biology, MSU, CBE

(Continues on next page)

9:35-10:00
Biofilm physiology in the absence of oxygen
Melanie Spero, Asst. Professor, Institute of Molecular Biology, Univ. 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 and the intracellular survival using a new in vitro CF biofilm model: Implications for antibiotic evasion and infection relapse
Maria Olivia Pereira, Asst. Professor, Biological Engineering, University of Minho

11:15-11:30
IA Milestones & CBE Awards

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, Asst. 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, Asst. Professor, Chemical, Biomolecular & Materials Eng., University of Rhode Island ***Young Investigator Awardee**

1:50–2:10 Networking Break

2:10-2:30
Viability and strength characteristics across three generations of living building materials
Ethan Viles, Postdoctoral Researcher

2:30-2:50
Digital light processing 3D bioprinting of engineered *E. coli MJK2* for in situ biomineralization in PEGDA hydrogels
Adnina Rudaiba, Masters 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 and public health
Joe Sexton, Team Lead, Biofilm & Microbial Control Lab, 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

7:00–8:00 am Parting Thoughts
Optional discussion hour for members & CBE leadership
Goldenrod Ballroom

8:00–8:30 am
Cont. breakfast Larkspur Foyer

8:30–11:50 am
Meeting Larkspur Ballroom

8:30-8:35
Opening Remarks
Matthew Fields, Darla Goeres; Angela Thompson, Masco

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
***'Phollowing'* phage outbreaks within microbial communities and living animals**
Lizett de Ora Ortiz, Postdoctoral Researcher, MSU, CBE

9:55-10:25 Networking Break

10:25-10:50
Rapid screening and quantification of microbial activity in dynamic, non-cultivable systems
Molly Shreve, PhD Student, Microbiology & Cell Biology, MSU, CBE

10:50-11:15
Single-cell RNA sequencing reveals transcriptional heterogeneity in *Pseudomonas aeruginosa* biofilms
Nasibeh Arabameri, PhD Student, School of Life Sciences, UNLV

11:15-11:40
Characterizing population growth dynamics in 3D printed synthetic biofilms
Kathryn Zimlich, Postdoctoral Researcher, Dartmouth College

11:40-11:50
Closing Remarks
Matthew Fields, Darla Goeres

CBE gratefully acknowledges the support from its meeting sponsors:

SYMCEL
Silanna
ibidi cells in focus