



Montana Biofilm Science & Technology Meeting and Workshop



July 10-12, 2024



Hilton Garden Inn Bozeman
Draft AGENDA

4/23/2024 2:17 PM

Tuesday July 9

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

Wednesday July 10

7:00-8:00 am CBE & IA Members Coffee Talk Boardroom

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

Meeting: Larkspur Ballroom

8:00-8:10
Opening Remarks
Matthew Fields, Director, CBE;
Professor, Microbiology &
Cell Biology, MSU
Darla Goeres, Coordinator of
Industrial Development, CBE

8:10-8:50
Industrial Associate Introductions

SESSION 1: Biofilm as a System

8:50-9:00
Session Introduction
Darla Goeres

Keynote Presentation

9:00-9:45
A fascination with phenazines
Dianne Newman, Gordon M. Binder/Amgen Professor of
Biology and Geobiology,
Caltech

9:45-10:15 Networking Break

10:15-10:45
Title TBA
Matthew Fields

10:45-11:15
Title TBA
Ross Carlson, Professor, Chemical
& Biological Engineering, MSU,
CBE

11:15-12:00
Panel: Biofilm as a System
Dianne Newman
Matthew Fields
Ross Carlson
Moderator: Darla Goeres

12:00-1:30 Networking Lunch

SESSION 2: Kill, Remove, Prevent

1:30-1:35
Session Introduction
Liz Sandvik, Research Engineer,
CBE

1:35-2:05
NASA dormancy studies
Liz Sandvik

2:05-2:35
A screening method for evaluating the antimicrobial efficacy of residential laundry products, an adaptation of BSI EN 17658:2022
Laura Gage, Senior Microbiology
Manager, Arxada

2:35-3:05
Dental unit water lines
Chris Jones, PI, Standardized
Biofilm Methods Laboratory,
CBE

3:05
Transport to CBE laboratories

Poster Session and Lab Open House

3:30–5:30
3rd Floor Barnard Hall, MSU
Schedule available onsite

Thursday July 11

7:00-8:00 am CBE & IA Members Coffee Talk Boardroom

7:30–9:00 am
Registration & continental breakfast Larkspur Foyer

Meeting: Larkspur Ballroom

8:00-9:00 IA+CBE Connect

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

SESSION 3: Innovative Techniques for Biofilm Analysis

9:05-9:10
Session Introduction
Heidi Smith, Manager, Bioimaging
Facility, CBE; Assistant
Research Professor,
Microbiology & Cell Biology,
MSU

9:10-10:10
Title TBA
Bruce Boles, PhD Student, Civil
Engineering, MSU, CBE

Methods for the visualization of multispecies biofilms
Erika Espinosa-Ortiz, Assistant
Professor, Biological
Engineering, Utah State
University

Using Stimulated Raman Spectroscopy to study the human fecal microbiome
Jacob Schimetz, PhD Student,
Chemistry & Biochemistry, MSU

10:10-10:40 Networking Break

10:40-11:10
Microsensors and food processing
Stephan Warnat, Associate
Professor, Mechanical &
Industrial Engineering, MSU,
CBE

(Continues on next page)

11:10-11:40

Electrochemistry as a tool to understand biocorrosion

Georgia Ghiara, Visiting Faculty,
Fulbright Scholar, MSU, CBE

11:40-12:00

CBE Awards

12:00-1:00 Lunch

SESSION 4: Biofilms and Water Quality

1:00-1:05

Session Introduction

Catherine Kirkland, Assistant
Professor, Civil Engineering,
MSU, CBE

1:05-1:30

Monochloramine induces release of DNA and RNA from bacterial cells: Quantification, sequencing analyses, and implications

Sakcham Bairoliya, Research
Fellow, Civil and Environmental
Engineering, Singapore Centre
for Environmental Life Sciences
Engineering, Nanyang
Technological University

***Young Investigator Awardee**

1:30-1:55

Title TBA

Ellen Lauchnor, Associate
Professor, Civil Engineering,
MSU, CBE

1:55-2:25 Networking Break

2:25-2:55

Pathogenic free-living amoeba: Interactions with biofilms in natural and engineered systems

John Shikany, PhD Student,
Chemical & Biological
Engineering, MSU, CBE

2:55-3:20

Biofilms and public health

Joe Sexton, Biofilm Laboratory
Team Lead, CDC

Strategic Planning Meeting for CBE Members

3:45-5:00

Hilton Garden Inn

BBQ Dinner

6:00

Big Yellow Barn, Bozeman

**Friday
July 12**

8:00-8:30 am

Registration & continental breakfast Larkspur Foyer

Meeting: Larkspur Ballroom

8:30-8:35

Opening Remarks

Matthew Fields, Darla Goeres

SESSION 5: Medicine and Healthcare

8:35-8:40

Session Introduction

Kelly Kirker, Assistant Research
Professor, Chemical &
Biological Engineering, MSU,
CBE

8:40-9:10

Bacterial hibernation: A mechanism for biofilm antibiotic tolerance

Mike Franklin, Professor,
Microbiology & Cell Biology,
MSU, CBE

9:10-9:40

Crafting polymicrobial wound biofilm models through microbiome analysis

Jontana Allkja, Postdoctoral
Researcher, Dental School and
Hospital, University of Glasgow

***Young Investigator Awardee**

9:40-10:10 Networking Break

10:10-10:40

Synthesis and biological evaluation of novel antimicrobial agents for the control and eradication of pathogenic bacterial biofilms

Heidi Koenig, PhD Student,
Chemistry & Biochemistry,
MSU, CBE

10:40-11:10

One is not the loneliest number: Using new tools to study virus infections at a single cell level

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

11:10-11:40

Revisiting the biofilm model of wound infection

Phil Stewart, Regents Professor,
Chemical & Biological
Engineering, MSU, CBE

11:40-11:50

Meeting wrap-up



Mark your calendar!

*CBE Pathways to Product
Development Meeting
February 2025
Washington, D.C.*