

Wednesday February 5

6:00–8:00 p.m.
Pre-registration and
Welcome Reception
GranTree Inn
North 7th Ave, Bozeman

Thursday February 6

7:30–8:15 a.m.
Registration and Continental
Breakfast
Strand Union Building (SUB)
Room 275 / 276

8:15–8:30
Introductory Remarks
SUB Ballroom D
Paul Sturman, CBE Industrial
Coordinator
Bobby Orr, Tyco Healthcare,
TAC Chair
Bill Costerton, CBE Director

SESSION 1: Medical

8:30–8:40
Session Introduction
Mark Shirliff, Assistant
Research Professor, CBE

8:40–9:20
Bacteria Lives in the Darndest
Places!!
Bill Costerton, CBE Director

9:20–9:40
Essential Oil Mouthrinse
Treatment of Dental Biofilms
Mark Pasmore, Assistant
Research Professor, CBE

9:40–10:10
Combating Biofilm-Associated
Antibiotic Resistance
Brian Cali, Vice President for
Development, Microbia Inc.

10:10–10:30 Break

10:30–10:50
A Review of Ultrasound-
Mediated Drug Delivery
Pierre D. Mourad, PhD, Center
for Industrial and Medical
Ultrasound, Applied Physics
Laboratory, Department of
Neurological Surgery, University
of Washington

10:50–11:20
Novel Approaches to Prosthetic
Joint Infection Diagnosis
Robin Patel, M.D., Infectious
Diseases Research, Mayo Clinic

11:20–11:40
Evaluation of *Staphylococcus
aureus* Gene Expression in
Biofilms through Microarray
Analysis
Mark Shirliff

11:40–11:50
Session Wrap-Up

11:50–1:00
Lunch, Catered
SUB Ballroom C

SESSION 2: Biofilm Methods

1:00–1:10
Session Introduction
Darla Goeres, CBE Research
Engineer

1:10–1:30
Progress Report: Developing a
Method to Test the Efficacy of
Chemical Hot Tub Disinfectants
Darla Goeres

1:30–1:50
CDC Biofilm Reactor:
Ruggedness Test Results
Marion Osterud, BSTL Intern
Martin Hamilton, Professor
Emeritus, Statistics

1:50–2:10
NMR Microscopy of the Impact
of Biofilms on Transport
Phenomena in Bioreactor Flows
and Porous Media
Joe Seymour, Assistant
Professor, Chemical Engineering

2:10–2:30
The Biofilm Imaging Facility: A
Grant Funded by the Murdock
Charitable Trust
Luanne Hall-Stoodley,
Assistant Research Professor,
Microbiology

2:30–2:50
Session Wrap-Up

2:50–3:10 Break

SESSION 3: Biofilm Structure and Function

3:10–3:20
Session Introduction
Phil Stewart, Professor,
Chemical Engineering, CBE

3:20–3:40
Characterization of the
Extracellular Matrix of
Pseudomonas aeruginosa
Biofilms
Mike Franklin, Associate
Professor, Microbiology

3:40–4:00
Patterns of Growth in
P. aeruginosa Colony Biofilms
Erin Werner, Undergraduate
Researcher, Chemical
Engineering

4:00–4:20
Modeling Biofilm Antibiotic
Resistance: Persisters
Mark Roberts, Undergraduate
Researcher, Chemical
Engineering, and Phil Stewart

4:20–4:40

Biofilm Fuel Cells

Zbigniew Lewandowski,
Professor, Civil Engineering

4:40–5:00

Session Wrap-Up

5:00–6:00 Poster Session

SUB 275 / 276

6:00

Dinner, Catered
Sub Ballroom C

Friday
February 7

7:30–8:20

**Registration and Continental
Breakfast**

SUB Room 275 / 276

SESSION 4:

**Distribution System
Biofilms**

8:20–8:40

**Session Introduction and
Regulatory Update**

Anne Camper, Associate
Professor, Civil Engineering

8:40–9:00

**Assessing Microbial
Contamination Risks for Small
Water Systems**

Phil Butterfield, Assistant
Research Professor, Civil
Engineering

9:00–9:20

**Rechargeable Biocidal Coating
for Biofilm Control**

Alex Bargmeyer, MS Candidate,
Civil Engineering

9:20–9:35

**Bioterrorism and Water
Distribution Systems**

Anne Camper

9:35–9:50

**Session Wrap-Up and Industry
Comment**

9:50–10:10 Break

SESSION 5:

**Mechanical Disruption of
Biofilm**

10:10–10:15

Session Introduction

Paul Stoodley, Assistant
Research Professor, CBE

10:15–10:35

**Disruption of Dental Plaque
Biofilm via Fluid Forces**

Chris McInnes, Principal
Research Scientist, Philips Oral
Heath Care

10:35–11:05

**Removal of Biofilm by
Powered Brushing from
Interproximal Model**

Heather Adams, CBE REU
Student

**Viscoelasticity of Dental and
Other Biofilms**

Matt Winston, Undergraduate
Researcher, Mechanical
Engineering

11:05–11:20

**Modeling Biofilms as
Viscoelastic Fluids**

Todd Shaw, PhD Candidate,
Mathematics

11:20–11:30

**Session Wrap-Up
and Industry Comment**

SESSION 6:

Industry Interaction

11:30–12:10

**Cooperation between Industry,
Academics and Institutes
(Part 1)**

Joel Berg, DDS, Chair, Dept. of
Pediatric Dentistry, University of
Washington

12:10–12:20

**Cooperation between Industry,
Academics and Institutes
(Part 2)**

Bill Costerton

12:20–12:30

Meeting Wrap-Up

12:30–2:00

TAC Business Meeting

(Lunch Catered for IA reps and
CBE PIs)

SUB Room 275 / 276