Monday
June 28

6:00–7:30 p.m.
Pre-registration and
Welcome Reception
GranTree Inn
North 7th Ave, Bozeman

Tuesday
June 29

7:45–8:45 a.m.
Registration and
Continental Breakfast
Strand Union Building (SUB)
Room 275 / 276

8:45–9:00
Introductory Remarks
SUB Ballroom D
Paul Sturman, CBE Industrial
Coordinator
Bobby Orr, C.R. Bard, Inc.,
TAC Chair

Invited Presentation:
9:00–10:00
Defining the Vibrio harveyi
Quorum Sensing Network
Bonnie Bassler, Professor,
Molecular Biology,
Princeton University, New Jersey

10:00–10:20 Break

State of the CBE Address:
10:20–11:10
Bill Costerton, CBE Director

SESSION 1: Biofilm Methods

11:10–11:20
Session Introduction
Darla Goeres, CBE Research
Engineer

11:20–11:35
Standard Method Development:
Efficacy Testing in Dental Unit
Water Lines
Shannon Goeres, BSTL
Undergraduate Intern

11:35–11:55
Parallel Testing to Determine the
Influence of Biofilm Growth
Conditions on Antimicrobial Log
Reduction
Kelli Buckingham-Meyer, CBE
Laboratory Specialist

11:55–12:10
Long Term Monitoring of an Oilfield
Bacterial Consortium
Brandon Brooks, Recent MSU B.S.
Graduate, Chemical & Biological
Engineering

 SESSION 2: Environmental Biofilms

1:30–1:40
Session Introduction
Anne Camper, Associate Professor,
Civil Engineering, CBE

1:40–2:00
Influence of Siderophores on Metal
Mobility and Transport
Abigail M. Aiken, Visiting PhD
Student, Chemical Engineering
Washington State University

2:00–2:20
Escherichia coli Capture by
Established Pseudomonas aeruginosa Biofilm in a Capillary
Flow Cell
Benjamin Klayman, PhD Candidate,
Environmental Engineering

2:20–2:40
Biofilms in the Environment:
Understanding Pathogens in
Drinking Water Distribution
Systems
Stewart Clark, PhD Candidate,
Microbiology

2:40–3:00
Modeling Drinking Water System
Biofilms Using Cellular Automata
Al Cunningham, Professor,
Civil Engineering, CBE

3:00–3:20
Discovering the Microbial Diversity
in Natural Biofilms:
The forest or the trees?
Mark Burr, Senior Research
Associate, CBE

3:20–3:30
Wrap-Up and Industry Comment

3:30–3:50 Break

3:50–4:45
FDA Regulatory Outlook
Janine Morris, Branch Chief,
Urology and Lithotripsy Devices
Branch, Division of Reproductive,
Abdominal, and Radiology Devices,
Office of Device Evaluation, Center
for Devices and Radiological Health,
US Food and Drug Administration

5:00–6:30
Poster Session

Wednesday
June 30

7:30–8:20 a.m.
Registration and
Continental Breakfast
Strand Union Building (SUB)
Room 275 / 276

SESSION 3: Biofilm Structure-Function

8:20–8:30
Session Introduction
Zbigniew Lewandowski, Professor,
Civil Engineering, CBE

8:30–8:50
Importance of Electron Shuttling
Compounds in Biological Systems
Robin Gerlach,
Assistant Research Professor, CBE

8:50–9:10
Bacterially Derived Environmentally
Compatible Adhesives
Gill Geesey, Professor,
Microbiology, CBE
9:10–9:30
Modeling Interactions between Fluid Forces and Biofilm Deformation
Brett Towler, Postdoctoral Researcher, Civil Engineering

9:30–9:50
Predicting Biofilm Structural Parameters Using Artificial Neural Networks
Raaja Raajan Angathevar Veluchamy, MS Candidate, Environmental Engineering

9:50–10:10
Joe Seymour, Assistant Professor, Chemical & Biological Engineering, CBE

10:10–10:30 Break

SESSION 4:
The CBE Imaging Facility

10:30–10:40
Session Introduction
Betsey Pitts, CBE Research Associate and Facilities Manager, Microscopy

10:40–11:00
Flow Cytometry: A Complement to the Biofilm Imaging Facility
Jennifer Sestrich, CBE Research Assistant

11:00–11:20
Fluorescent Stains and Probes Used at the CBE
Betsey Pitts

11:20–11:40
Imaging Biofilms on Alternative Surfaces
Steve Fisher, CBE Research Assistant

11:40–12:00
Image Analysis Using MetaMorph: Quantitative Techniques
Willy Davison, PhD Candidate, Chemical & Biological Engineering

12:00–12:20
Qualitative Image Analysis Using Imaris
Patrick Norris, MS Candidate, Mechanical Engineering

12:20–1:20
Lunch, Catered
SUB Ballroom C

Imaging Forum:
1:20–1:50
A Discussion of Imaging Issues in Industrial Applications
Betsey Pitts

1:50–2:10
Education Initiative Overview
Rocky Ross, Professor, Computer Science, CBE

3:00–5:00
TAC Business Meeting
Springhill Pavilion

6:00–8:00
Dinner
Springhill Pavilion

Thursday
July 1

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

Special Presentations:

8:30–9:10
Linking Identity and Function of Uncultured Bacteria in Biofilms
Per Nielsen, Professor, Environmental Engineering
University of Aalborg, Aalborg, Denmark

9:10–9:50
Biomedical Applications of Viruses as Templates for Nanomaterials Synthesis
Mark Young, Associate Professor, Plant Sciences and Plant Pathology, MSU

SESSION 5: Biofilm Control—Medical

9:50–10:00
Session Introduction
Phil Stewart, Professor, Chemical & Biological Engineering, CBE

10:00–10:20
Multicellular Nature of Biofilm Antimicrobial Tolerance
Phil Stewart

10:20–10:40 Break

10:40–11:00
Virulence Factors Associated with Pseudomonas aeruginosa Biofilms
Mike Franklin, Assistant Professor, Microbiology, CBE

11:00–11:20
Is the Nasopharyngeal Colonization with Streptococcus pneumoniae a Biofilm-Related Process?
Christoph Fux, MD, Visiting Researcher, University of Bern, Bern, Switzerland

11:20–11:40
Growth Limitation of Staphylococcus epidermidis in Biofilms Contributes to Rifampin Tolerance
Phil Stewart

11:40–11:50 Wrap-Up and Industry Comment

11:50–12:00 Meeting Wrap-Up