

# Center for Biofilm Engineering

### Wednesday February 1

6:00–8:00 p.m. Pre-registration and welcome reception GranTree Inn North 7<sup>th</sup> Ave, Bozeman

## Thursday February 2

8:00–8:45 a.m. Registration and continental breakfast Strand Union Building (SUB) Ballrooms B and C

8:45–9:00 Introductory remarks SUB Ballroom D Paul Sturman, CBE Industrial Coordinator Mel Czechowski, Church & Dwight, TAC Chair Robert Marley, Dean, MSU College of Engineering Phil Stewart, CBE Director

#### SESSION 1: Biofilm Control

9:00–9:10 Session introduction Phil Stewart

9:10–10:00 KEYNOTE PRESENTATION

Using iron to manipulate Pseudomonas aeruginosa biofilms

Peter Greenberg, Chair and Professor of Microbiology, University of Washington

10:00–10:30 Enhancing antibiotic susceptibility of *Pseudomonas aeruginosa* biofilms by quorum sensing inhibition Caol Huff, CBE PhD Candidate, Chemistry

10:30-10:50 Break

10:50–11:10 Dormant cells in *Pseudomonas aeruginosa* biofilms Lee Richards, CBE PhD Candidate, Chemical & Biological Engineering

#### <u>SESSION 2:</u> Biofilm Structure

11:10–11:20 Session introduction Zbigniew Lewandowski, CBE Professor, Civil Engineering

11:20–11:45 Structure and activity of *Pseudomonas aeruginosa* PAO1 biofilms Raaja Raajan Angathevar Veluchamy, CBE MS Candidate, Environmental Engineering

11:45–12:00 Characterization of *Campylobacter jejuni* biofilm formation Vildan Caner, Visiting Scientist, Assistant Professor in the Molecular Microbiology Lab, School of Medicine with Pamukkale University, Denzili, Turkey

12:10–1:00 Lunch, catered SUB Ballrooms B and C

#### SESSION 3:

# Phage Interactions with Biofilm

1:00–1:40 Viruses/phage: Biofilm players...but what else? Rick Veeh, CBE Senior Research Associate

1:40–2:10 Cage-based MRI contrast agents for diagnosis of biofilm infections Peter Suci, CBE Assistant Research Professor, Microbiology 01/30/06

2:10–2:40 Display phage technology: Development of peptide aptamers for the detection and neutralization of toxins Joe Fralick, Professor, Microbiology, Texas Tech

2:40-3:00 Break

#### <u>SESSION 4:</u> Medical Biofilms

3:00–3:30 Plant derived biofilm inhibitors Garth James, CBE Medical Projects Manager and High throughput 96-well screening Amy Martin, CBE Undergraduate Researcher 3:30–4:00

A laboratory model of wound biofilms Ellen Swogger, CBE Laboratory Technician, and Community analysis of chronic wounds using molecular techniques Pat Secor, CBE Undergraduate Researcher

#### SPECIAL PRESENTATION

4:00–4:30 The two-photon "capture" microscope: A slime guy's fervent dream Bill Costerton, Director, Center for Biofilms, School of Dentistry, University of Southern California

#### FDA PRESENTATION

4:30–5:00 FDA regulatory outlook: How to get a submission approved by the U.S. FDA Victoria Hitchins, Scientist Director, Division of Biologics, Office of Science and Engineering Laboratories, Center for Devices and Radiological Health, FDA

#### Poster Session

5:00–6:00 Poster session Ballrooms B and C

#### 6:00

Dinner Catered, Ballroom B and C

7:00

Business meeting Ballroom A (for Industrial Associate designated representatives only)

## Friday February 3

8:00–8:45 a.m. Registration and continental breakfast Strand Union Building (SUB) Ballrooms B and C

#### SESSION 5:

The Biofilm Matrix

8:45–9:30 The biofilm extracellular matrix Phil Stewart

9:30–10:10 Dyed and buried...how to use stains and dyes to uncover information in biofilms - an informal discussion of VERY recent CBE experience with microscope stains Betsey Pitts, CBE Research Associate/Facilities Manager, Microscopy

10:10–10:50 The role of staphylococcal extracellular polymers in biofilm formation and immune evasion Michael Otto, Principal Investigator, Rocky Mountain Laboratories, National

Institute of Allergy and Infectious Diseases, The National Institutes of Health

<u>10:50–11:10 Break</u>

11:10–11:30 Exotoxin expression during biofilm growth of *Pseudomonas aeruginosa* Ailyn Lenz, PhD Candidate, Microbiology

11:30–11:50 Manipulating the shear strain response through cation cross-linkage of the EPS Mike Sutton, CBE Undergraduate Researcher, Mechanical Engineering

11:50 – 12:00 Session/Meeting wrap-up and industry comment

# NEXT TAC JUNE 20-22, 2006