

Program
TX Branch – American
Society for Microbiology
Spring Meeting 2010

April 8-10, 2010

T Bar M Resort and
Conference Center

2549 Highway 46 West, New Braunfels, Texas



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TX Branch ASM Spring Meeting 2010

Thursday April 8

- 3:00 – 6:00 pm Registration
- 6:00 – 7:00 pm Dinner
- 7:15 – 7:30 pm Welcome and Opening Remarks
Poonam Gulati, University of Houston-Downtown
- 7:30 – 8:30 The end of the viral life cycle: adsorption and genome penetration into the infected cell.
Ian Molineux, University of Texas, Austin
- 8:45 - ? Business meeting
- Coffee (sponsored by Fermentas Life Sciences)

Friday April 9

- 7:00 – 8:00 am Registration
- 7:00 – 7:45 am Breakfast
- 7:00 – 8:00 am Setup posters

Students must have the posters set up by 8:00 am

- 8:00 – 9:30 am **Global Gene Regulation and the Stress Response in *Rhodopseudomonas palustris***
Michael Allen, University of North Texas, Denton
- Programmed Cell Death in Unicellular Organisms**
Anne R. Gaillard, Sam Houston State University
- Long 3'-UTRs target natural mRNAs for Nonsense-Mediated mRNA decay in *Saccharomyces cerevisiae***
Bessie W. Kebaara, Baylor University

- 9:30 – 9:45 am Coffee break (sponsored by VWR International)
- 9:45 – 12:00pm **Student Oral Presentations** (in competition for Orville Wyss undergraduate student award; presenting author is underlined)
- 9:45 am **Defending Against Infection: Quorum Quenching by Enzymes in Human Liver Microsomes**
Amy Miller Davis & Donovan C. Haines, Sam Houston State University
- 10:00 am **Effect of *N*-acyl homoserine lactone hydrolase on competition in *Escherichia coli* and *Pseudomonas aeruginosa***
Amanda M. Duran¹, Robert J.C. McLean¹, William T. Boswell¹, Mary M. Weber¹, Jessica Momb², Walter Fast^{2,3}
1. Department of Biology Texas State University-San Marcos
2. Graduate Program in Biochemistry, The University of Texas, Austin
3. Division of Medicinal Chemistry, College of Pharmacy, The University of Texas, Austin
- 10:15 am **A Laboratory Module for Host-Pathogen Interactions: America's Next Top Model**
R. S. Fultz and T. P. Primm Sam Houston State University, Huntsville, TX.
- 10:30 am **Real-time PCR analysis of hyperosmolar stress on *Vibrio vulnificus* clinical type strain and an environmental isolate.**
L. Lyle, S. Willias, Z. Jones, A. Smith, G. Ramirez, J. Mott, G. Buck
Texas A&M University – Corpus Christi
- 10:45 am **Inducing Triclosan Resistance**
Ashley Masters, Midland College
- 11:00 am **Effect of Glucose Concentrations on *Staphylococcus aureus* Biofilm Formation in an *In Vitro* Model for Diabetic Foot Ulcer Infections**
Derek Moore¹, Catherine Ambrose², and Heidi B. Kaplan¹. Departments of ¹Microbiology and Molecular Genetics and ²Orthopaedic Surgery, University of Texas Medical School, Houston
- 11:15 am **Induction of Negative Phototaxis in *Chlamydomonas* by Hydroxy- and Methoxyacetophenone Derivatives.**
Austin A. Pearce, Shakila K. Evans, Todd P. Primm, and Anne R. Gaillard
Sam Houston State University, Department of Biological Sciences
- 11:30 am **A New *Myxococcus xanthus* Quorum Signal Initiates Multicellular Development and *Bacillus subtilis* Germination**
Michelle Thorson¹, Zalman Vaksman², Oleg Igoshin¹, and Heidi Kaplan².
¹Department of Bioengineering, Rice University and ²Department of Microbiology and Molecular Genetics, University of Texas Medical School, Houston, TX
- 12:00 – 12:45 pm Lunch

12:45 – 2:00 pm

Student Poster Presentations and judging

2:00 – 4:00 pm

Graduate Student Oral Presentation (in competition for Charlie Gauntt graduate student award; presenting author is underlined)

3 pm

Coffee (sponsored by VWR and Fermentas)

2:00

16s rDNA Characterization of Epiphytic Bacteria on Seagrasses from an Estuary and a Hypersaline Lagoon on the South Texas Coast

Valerie K. Chilton, Kirk Cammarata

Department of Life Sciences, Texas A&M University – Corpus Christi

2:15

Identification of the Causative Bacteria in Osteomyelitis Infections Using the Rapid and Sensitive 16S rDNA Molecular Diagnostic Technique

Karen Gomez¹, Catherine Ambrose², and Heidi B. Kaplan¹. Departments of ¹Microbiology and Molecular Genetics and ²Orthopaedic Surgery, University of Texas Medical School, Houston, TX.

2:30

IL-17 is not Required for Classical Macrophage Activation in a Pulmonary Mouse Model of *Cryptococcus neoformans* Infection

Sarah E. Hardison^{1,2}, Karen L. Wozniak^{1,2}, Floyd L. Wormley, Jr.^{1,2}

¹The University of Texas at San Antonio, ²Department of Biology South Texas Center for Emerging Infectious Diseases

2:45

Bacteriophage replication in *Escherichia coli* and *Pseudomonas aeruginosa* mixed biofilms.

Matt Kay, Robert JC McLean, and Gary M. Aron Texas State University-San Marcos, TX

3:00

Controlled comparison of peroxide stress-response mechanisms in *E. coli* and *B. subtilis* reveals differences in their functional performance

Jatin Narula, Abhinav Tiwari and Oleg A. Igoshin Department of Bioengineering, Rice University

3:15

The Pneumococcal Serine-Rich Repeat Protein is an Inter-Bacteria Adhesin that Promotes Bacterial Aggregation in Biofilms

Carlos J. Sanchez¹, Kim Stol², Pooja Shivshankar¹, Samuel Trakhtenbroit¹, Paul Sullam³, Karin Sauer⁴, Peter W. M. Hermans² and Carlos J. Orihuela¹

¹Department of Microbiology and Immunology, The University of Texas Health Science Center San Antonio; ²Laboratory of Pediatric Infectious Diseases, Radboud University Nijmegen Medical Centre; ³Division of Infectious Diseases, University of California San Francisco; ⁴Department of Biological Sciences, Binghamton University

- 3:30 **Nanoparticle Influence on Bacterial Toxicity**
Alicia Taylor¹, Gary Beall², Nihal Dharmasiri¹, Yixin Zhang¹ and Robert JC McLean¹, Texas State University-San Marcos, Texas. ¹ – Department of Biology, ² – Department of Chemistry Texas State University – San Marcos, Texas
- 3:45 **Interplay of Multiple Feedbacks with Post-Translational Kinetics Results in Bistability of Mycobacterial Stress-Response**
 Abhinav Tiwari, Gabor Balazsi and Oleg A. Igoshin Department of Bioengineering, Rice University

4:00 – 7:00 pm **Free Time**

7:00 – 7:45 pm Dinner

8:00 – 9:00 pm **Goldschmidt Lecture**
Anthrax: of Mice, Men, and Tomato Seedlings
Dr. Theresa Koehler, UT Houston Health Sciences Center

9:00 – 9:30 pm Award presentation

9:30 - ? Movie Under the Stars (sponsored by Bio-Link Scientific)
 Sports Center, maze, etc...

Saturday April 10

8:00 – 8:45 am Breakfast: Check out of rooms before 11 am

9:00 – 10:30 am Implementing an Authentic Research Experience for Freshmen
Dr. Lee Hughes, University of North Texas

Practical Tools for Exploratory and Active Learning
Dr. Todd Primm, Sam Houston State University

10:30-11:15 am Post-Doctoral Presentations

Enhanced induction of HIV-specific CTL by dendritic cell-targeted delivery of SOCS-1 siRNA

Sandesh Subramanya^{1,2}, Myriam Armant¹, Chunting Ye^{1,2}, Judy Leiberman¹, Lenny Shultz³, Dale Greiner⁴, Premlata Shankar^{1,2}

¹Immune Disease Institute, Harvard Medical School, Boston, MA 02115; ²Department of Biomedical Sciences, Center of Excellence for Infectious Diseases, Paul L. Foster School of Medicine, Texas Tech University Health Sciences Center, El Paso, TX; ³The Jackson Laboratory, Bar Harbor, ME; ⁴Department of Medicine, University of Massachusetts Medical School

Use of Single Gene Knock-out Mice with Specific Immune Deficiencies to Evaluate Innate and Adaptive Immune responses against Yeast and Filamentous Cells in a Murine Model of Hematogenously Disseminated Candidiasis

A. K. Chaturvedi¹, A. L. Lazzell¹, C. Monteagudo², M. T. Berton³, F. L. Wormley Jr¹, S. P. Saville¹, J. L. Lopez-Ribot¹ ¹UTSA, San Antonio, TX, ²Departamento de Patología, Facultad de Medicina y Odontología, Universidad, Spain, Valencia, SPAIN, ³UTHSCSA, San Antonio, TX.

Coming Full Circle: Dispersion as an Important Step in the Candida albicans Biofilm Life Cycle

P. Uppuluri¹, A. K. Chaturvedi¹, A. Srinivasan¹, M. Banerjee², A. Ramasubramaniam¹, J. R. Kohler³, D. Kadosh², J. L. Lopez Ribot¹; ¹UTSA, San Antonio, TX, ²UTHSCSA, San Antonio, TX, ³Children's hospital, boston, MA.