

**2<sup>nd</sup> Annual UC Davis Research Retreat on Host Microbe  
Interaction  
Granlibakken, October 11<sup>th</sup>-12<sup>th</sup>, 2007**

**ORGANIZING COMMITTEE**

Chair:

*Satya Dandekar, Ph.D.*

*Andreas Bäumlér, Ph.D.*

Members:

*Stephen Barthold DVM, Ph.D.*

*Nicole Baumgarth, DVM, Ph.D.*

*Charles Bevins, MD, Ph.D.*

*Kathy DeRiemer, Ph.D.*

*Bryce Falk, Ph.D.*

*Richard Michelmore, Ph.D.*

*Richard Pollard, MD*

*John Roth, Ph.D.*

*Barbara Shacklett, Ph.D.*

*Jay Solnick, MD, Ph.D.*

*Tilahun Yilma, DVM, Ph.D.*

# PROGRAM

## October 11

- 12:00pm**            **Opening Reception and Lunch Buffet**
- 1:00-3:00**            ***Scientific Session 1***  
Moderator: Satya Dandekar
- 1:00-1:25            *Tilahun Yilma* (Medicine, Dept. Med. Microbiol. & Immunol.) "New Recombinant Vaccines for Smallpox and Rift Valley Fever"
- 1:30-1:55            *Aaron Brault* (Veterinary Medicine, Dept. Pathol., Microbiol. & Immunol.) "A Murder of Crows: Association of Increased Fitness and Virulence of West Nile Virus in Avian Hosts with Epizootic Emergence and Geographic Expansion"
- 2:00-2:25            *Manuela Raffatellu* (Medicine, Med. Microbiol. & Immunol., Bäumler lab) "SIV Alters the Mucosal Response to *Salmonella* by Reducing the TH17 Response in the Gut"
- 2:30-2:40            *Sang Won Lee* (Agric. & Environ. Sci., Dept. Plant Pathol., Ronald lab.) Title not available
- 2:45-2:55            *Win Surachetpong* (Medicine, Dept. Med. Microbiol. & Immunol., Luckhart lab) "Human TGF- $\beta$  Regulation of Anti-malarial Response in *Anopheles* Mosquitoes"
- 3:00-3:30**            **Break**
- 3:30-5:30**            ***Scientific Session 2***  
Moderator: Jay Solnick
- 3:30-3:55            *Renée Tsohis* (Medicine, Dept. Med. Microbiol. & Immunol.) "How Does the *Brucella* Type IV Secretion System Contribute to Persistent Infection?"

- 4:00-4:10 *David Sela* (Viticulture & Enology, David Mills lab) "The Complete Genome Sequence of *Bifidobacterium infantis* Reveals Adaptation for Milk Utilization Within the Infant Microbiome"
- 4:15-4:25 *Monica Macal* (Medicine, Dept. Med. Microbiol. & Immunol., Dandekar lab) "Repairing the Gutting of Immune Defenses in HIV Infection"
- 4:30-4:40 *Kevin Holden* (Veterinary Medicine, Dept. Pathol., Microbiol. & Immunol., Barthold lab) "Developing Mutant Strains of the Lyme Disease Spirochete, *Borrelia burgdorferi*"
- 4:45-4:55 *Cynthia Holsclaw* (Molecular and Cellular Biology, Leary lab). "Structural Characterization of a Novel Sulfated Lipid from *Mycobacterium tuberculosis*"
- 5:00-5:10 *Lucy Stewart* (Agricult. & Environ. Sci., Dept. Plant Pathol., Falk lab) "Characterizing a Lettuce Infectious Yellow Virus-encoded Cytopathology Determinant"
- 5:15-5:30 *Arimoto, Hanayo* (Agricult. & Environ. Sci., Dept. Entomology, Lewis lab) "Face Fly/Nematode Development: A Synchronized Host/Parasite System"

**5:30-6:30pm Check in**

**6:30-7:30pm Dinner**

**7:45-10:00pm Poster Session**

## **October 12**

**7:30-8:30am Breakfast**

**8:45-10:00am Scientific Session 3**  
Moderator: Nicole Baumgarth

8:45-9:10 *Scott Dawson* (Biological Sciences, Section Microbiology) "Cytoskeletal Dynamics in *Giardia*: Implications for Pathogenesis"

- 9:15-9:25 *Candice Clay* (Medicine, Dept. Pathology, Esser lab) "Peripheral Monocyte Activation and Neuroinvasion in Acute SIV Infection"
- 9:30-9:40 *Clifton Drew* (Veterinary Medicine, Dept. Pathol., Microbiol. & Immunol., MacLachlan lab) "Potential Mechanisms of Endothelial Activation in Experimental Equine Viral Arteritis"
- 9:45-9:55 *Youn Soo Choi* (Veterinary Medicine, Dept. Pathol., Microbiol. & Immunol., Baumgarth lab) "Mechanisms of B-1 Cell Activation to Influenza Virus Infection"
- 10:00-10:20am Coffee Break**
- 10:20-12:00pm Scientific Session 4**  
Moderator: John Roth
- 10:20-11:05 *Gitta Coaker* (Agric. & Environ. Sci., Dept. Plant Pathol.,) "Dissecting the Molecular Basis of Bacterial Innate Immunity in *Arabidopsis*"
- 11:10-11:20 *Cara Cooke* (Center for Comparative Medicine and Dept. Med. Microbiol. & Immunol., Solnick lab) "Transcriptional Modulation of Outer Membrane Protein Expression in *Helicobacter pylori*"
- 11:25-11:35 *Frank Chin* (Medicine, Dept. Pathology, Sawai Lab) "A Conserved Domain in HIV and SIV Nef Modulates PAK and SNTK Activity"
- 11:40-11:50 *Tim Hayes* (Medicine, Dept. Med. Microbiol. & Immunol., Shacklett Lab) "Effect of Antiretroviral Therapy on Mucosal T-cells in HIV-infected Patients"
- 12:00-1:00pm Lunch**

## POSTER SESSION

### SIZE OF POSTER BOARDS: 4'x8'

*Yichuan Wang* "The Effect of Therapeutic Vaccination Combined with ART on SIV Viral Load Rebound After the Termination of ART"

*Gulnaz Stybayeva* "Micropatterned Co-cultures of T-lymphocytes and Epithelial Cells as *In Vitro* Models of Mucosal Immune System"

*Ousseny Zerbo* "Genotyping *Mycobacterium tuberculosis*"

*Xin Shen* "The Association Between *embBzob* Mutations and Drug Resistance in *Mycobacterium tuberculosis*"

*Win Surachetpong* "The Role of Hydrogen Peroxide and ERK in TGF- $\beta$  Induced Anti-malarial Response in Mosquito Vectors"

*Scott Dawson* "Kinesin-13 Regulates Flagellar, Interphase, and Mitotic Microtubule Dynamics in *Giardia intestinalis*"

*Wei Zou* "UC Davis Metabolomics Core"

*I-Chun Weng* "Role of Galectin in Macrophage Antibacterial Function"

*Dawei Lin* "Large Scale Bioinformatics Analysis"

*Brett Phinney* "UC Davis Genome Center Protonomics Core Facility"

*Christine Hastey* "The Ineffective Immune Response in *Borrelia burgdorferi* Infection"

*Stephen Priest* "Cell Cycle Regulation in B Lymphocytes During the Innate Immune Response"

*Sebastian Winter* "The *Salmonella enterica* Serotype Typhi Regulator *tviA* Reduces IL-8 Production in Intestinal Epithelial Cells by Repressing Flagellin Secretion"

*Daniela Chessa* "Std Fimbral Expression in *Salmonella enterica* Serotype *Typhimurium* is Regulated by RosE"

*Julia Stockhausen* "Effects of Treg Cell Depletion on CTL Responses in HIV-infected PBMC"

*Cagla Tükel* "A Conserved Residue of Curli is Required for Amyloid Formation and TLR2 Signaling"

*Paul Wilson* "The Vi Capsule Prevents Toll-Like Receptor 4 Recognition of *Salmonella*"

*Maarten de Jong* "Regulation of the *Brucella abortus* Type IV Secretion System"

*Cara Cooke* "Loss of Mucin Oligosaccharides in Gastric Biopsies of Rhesus Monkeys after Infection with *Helicobacter pylori*"

*Tim Hayes* "Effect of Antiretroviral Therapy on Mucosal T-Cells in HIV-infected Patients"

*Jenna Morgan* "Characterization of the *Drosophila* Gut Microbiome"

*Michael Hornsby* "*H. pylori* Induces an Antimicrobial Response in the Gastric Mucosa of Rhesus Macaques in a *cag* PAI-dependent Manner"

*Amber Hartman* "Exploring the Microbial Ecology of Crohn's Disease"

*Huitung Chu* "Human Defensin 6: Characterization of HD6 in Human and Transgenic Mouse Model"

*Patricia Castillo* "Neutrophil Alpha Defensin Peptide Expression in Rat Small Intestinal Epithelium"

*April Ferre* "Polyfunctional T-cell Responses in the Rectal Mucosa of HIV Controllers"

*Anchasa Kananurak* "The Effects of Prenatal Corticosteroids on Expression of Innate Antimicrobial Peptides of the Newborn Intestine"

*Brian Leonard* "Identification of Canine Antimicrobial Peptides"

*Monica Macal* "GALT CD4<sup>+</sup> T-cell Restoration in Chronically Infected HIV Patients During Long Term HAART Correlates with Increased T-cell Function and Reduced Mucosal Inflammation"

*Ching-I Chen* "B Cell-DC Interaction During Influenza Infection"

*Christelle Roux* "Host Responses Elicited by the *Brucella* Type IV Secretion System"

*Bill Critchfield* "Functional and Phenotype Features of Rectal Mucosal HIV-specific T-cells: Impact of Antiretroviral Therapy"

*Ben Wang* "Pathogenic Determinants of Feline Immunodeficiency Virus Accessory Gene *orf-A*"