



**12th Annual UC Davis Research
Retreat on Host Microbe Interaction
(HMI)**

Granlibakken, October 18th-19th, 2018

POSTER AWARD WINNERS

Vladimir Diaz Ochoa *NRAMP1 is Critical for Neutrophil-Mediated Control of Salmonella Typhimurium*

Annica Stull Lane *Elucidating how vitamin A can combat invasive non-typhoidal Salmonella infection*

Sundus Javed *Functional insights into the H. pylori CagY protein domains*

Hannah Miller *Entamoeba histolytica trophocytosis contributes to acquisition of host cell membrane proteins and protection from lysis by human serum*

Cintia Sagawa *Secreted bacterial proteins stimulate plant disease: the dark side of plant-pathogen interactions*

UP GOER FIVE CHALLENGE WINNER

Diana Taft: *Babies need tiny bits of life, tiny bits of life need white human water*

LOGO DESIGN WINNERS

Jordan Rixon, Graduate Student, CCM

Katti Horng, Graduate Student, MMI

A/V TECHNICIAN: Henry Nguyen

Co-Chairs:



Andreas Bäumler, Ph.D.

Professor and Vice Chair of Research, Medical Microbiology and Immunology



Satya Dandekar, Ph.D.

Professor and Chair, Medical Microbiology and Immunology



POSTER SESSION (Lake Room - 8:00-9:30pm)

Thank you to our Poster Judges

Elizabeth Didier, Center for Comparative Medicine
Yael Litvak, Medical Microbiology and Immunology
Erin Olsan, Medical Microbiology and Immunology
Colin Reardon, Vet Med: Anatomy, Physiology & Cell Biology
Sumathi Sankaran Walters, Medical Microbiology and Immunology

SIZE OF POSTER BOARDS: 4'x8'; POSTER SIZE: 4'x4'

SET-UP FOR POSTER SESSION, October 18 - 5:30 – 6 PM

POSTER JUDGING: 8:15 – 9:15. Judges have five minutes per poster for judging – please be on time and prepared for a five minute or less poster presentation with assigned judge

Investigations on HD6 Inhibition of Salmonella Motility, **Douglas Akahoshi**

m6A RNA Modification of ROR γ t and Investigating its Role in Th17 Differentiation, **Steven Azurdia**

Developing a Genome-wide RNAi Knock Down Screen in Entamoeba histolytica, **Akhita Bettadapur**

Dysbiosis links ER stress to development of colorectal cancer, **Stephanie Cevallos**

Cell to cell transfer of soluble antigen during infection with intracellular pathogens, **Claire Depew**

NRAMP1 is Critical for Neutrophil-Mediated Control of Salmonella Typhimurium, **Vladimir Diaz-Ochoa**

Bifidobacterium grown on human milk oligosaccharides produce tryptophan metabolite Indole 3 lactic acid that significantly decreases inflammation in intestine, **Amy Ehrlich**

NOD1 and NOD2 regulation of ER stress-induced inflammation, **Bevin English**

The mycobiome of the seagrass, Zostera marina, across space and time, **Cassie Ettinger**

Spatial heterogeneity of microbiome in healthy human small intestine, **Bei Gao**

Developing a Gnotobiotic Facility at UC Davis and considerations for Designing Studies, **Kristin Grimsrud**

Dynamics of the CD4 response to Borrelia burgdorferi, **Elizabeth Hammond**

Dysregulation of G-CSF and neutrophils is associated with chronic inflammation in aging rhesus macaques, **Ziyuan He**

Neonatal bacterial infection disrupts the developing microbiota-gut-brain axis, **Carly Hennessey**

PPAR mediated mitochondrial rescue by L. plantarum reverses intestinal barrier disruption in chronic SIV infection, **Katti Horng**

The Dual Roles of Histone Crotonylation in SIV/HIV Pathogenesis and Gut Repair in a Non-human Primate Model, **Shuang Hu**

Functional insights into the H. pylori CagY protein domains, **Sundus Javed**

Atypical Oligosaccharide Metabolism of Bifidobacterium longum subsp. longum SC215 Clarified by Comparative Genomics, **Nick Jensen**

Circulating memory is sufficient for immunity in the Chlamydia muridarum mouse model, **Jasmine Labuda**

Contribution of Innate signaling components to the extra follicular B cell response, **Jonathan Lam**



POSTER SESSION (Lake Room - 8:00-9:30pm)

Generation of Chlamydia-specific T-cell receptor transgenic mice, **Bokyung Lee**

Different host cell types provide discrete respiratory niches for Salmonella and E. coli in the gut, **Megan Liou**

Shiga toxin-mediated bacterial expression, **Yael Litvak**

Entamoeba histolytica trophocytosis contributes to acquisition of host cell membrane proteins and protection from lysis by human serum, **Hannah Miller**

Preventing CRE Colonization after Antibiotic Treatment in Mice, **Erin Olsan**

Characterization of Brucella effector protein VceB, **Beau Parry**

T-beta independent control of Chlamydia muridarum infection in the mouse female reproductive tract, **Jordan Rixon**

Differences in infection profiles of S. Typhimurium strains, **Andrew Rogers**

Secreted bacterial proteins stimulate plant disease: the dark side of plant-pathogen interactions, **Cintia Sagawa**

Visualization of Human Intestinal Epithelium and Immune Cell Markers Using Immunofluorescence & Immunohistochemistry, **Elvia Silva**

Helicobacter pylori colonization and type IV secretion system function are modulated by concurrent infection and the host immune response, **Emma Skoog**

Elucidating how vitamin A can combat invasive non-typhoidal Salmonella infection, **Annica Stull-Lane**

Investigating how E. histolytica "nibbles" vs. "swallows" human cells, **Rene Suleiman**

Shifting dynamics of intestinal macrophages during SIV infection in adult rhesus macaques, **Naofumi Takahashi**

omu, an R package for metabolomics data analysis, **Connor Tiffany**

Immune Repertoire Analysis during Newcastle Disease Virus infection in Heat-Stressed Chickens, **Karen Tracy**

Markerless gene knockouts for the tonB gene and ABC transporter genes from two iron siderophore biosynthesis gene clusters and a heme-binding protein gene in hypervirulent Acinetobacter baumannii LAC-4, **Yesica Viramontes**

Malaria-associated alterations to the intestinal environment contribute to increased colonization of non-typhoidal Salmonella, **Greg Walker**

Mesenchymal Stem cell therapy for Gut Mucosal Recovery in the Simian immunodeficiency virus model of AIDS, **Mariana Guedes Weber**

Can we use gene silencing to protect plants against Phytophthora?, **Paulo Zaini**

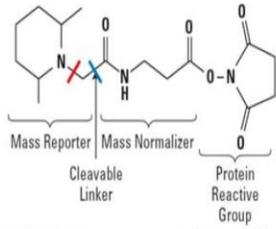
Understanding the Role of the Typi Vi Capsular Polysaccharide in Neutrophil and Macrophage Phagocytosis, **Lillian Zhang**

Differential Fermentation of Inulin-type Fructans by Intestinal Bifidobacteria and Lactobacilli from Dairy Calves, **Yuanting Zhu**

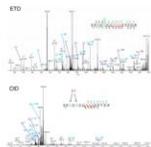


Proteomics Core Facility

UC Davis Genome Center
 proteomics.ucdavis.edu Twitter = UCProteomics



TMT quantitation



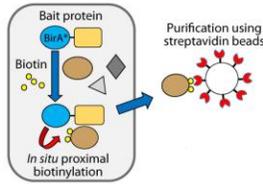
Phosphorylation



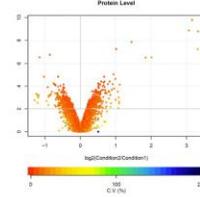
N-term sequencing



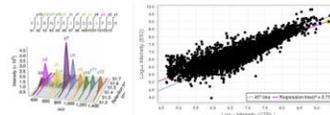
Amino Acid Analysis



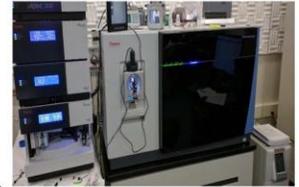
Proximity labeling
 BioID / Apex2



Profiling 1000's of
 proteins



New Equipment



More Training classes for 2018



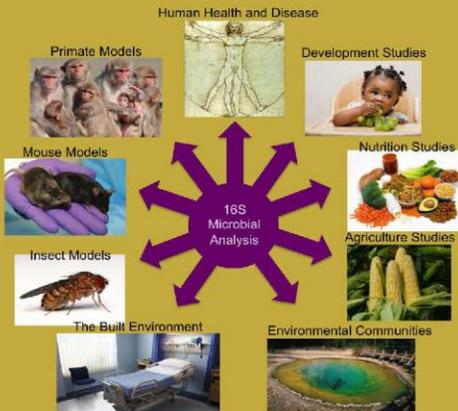
We are Located in room 1414 of the Genome and Biomedical Sciences Facility, UC Davis Campus and can be reached by *phone* at (530)-754-9474, *e-mail* at proteomics@tripe.genomecenter.ucdavis.edu or *twitter* at Brett Phinney@UCProteomics. If you want to keep tabs on what we are up to, we frequently update our proteomics blog and post on Twitter. Hope to see you there!



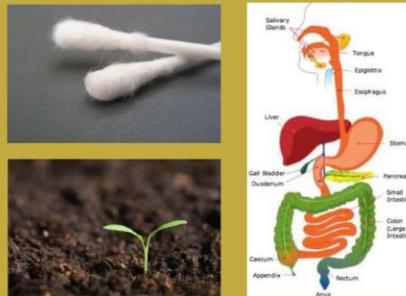
Host-Microbe Systems Biology Core

Department of Medical Microbiology and Immunology, University of California, Davis, CA
 ucdmc.ucdavis.edu/medmicro/hmsbcore (530) 754-7850

Microbial community analysis of biologically relevant models utilizing high-throughput sequencing

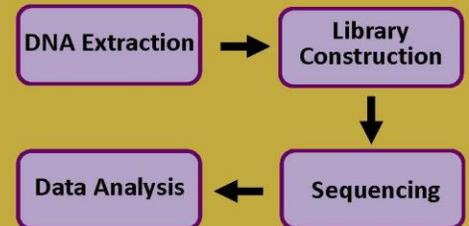


Expertise in DNA extraction methods including low input samples and those with inhibitory elements



- Skin Swabs
- Bronchoalveolar Lavage
- Soil/Environmental
- Gut Contents/Fecal

Complete start to finish workflows including DNA extraction, library preparation, sequencing in collaboration with DNA Tech Core, and preliminary analysis of microbiota



Further analysis options in collaboration with Bioinformatics Core

Director
 Satya Dandekar, Ph.D.



Associate Director
 Loubna Tazi, Ph.D.



Manager
 Matt Rolston



Please direct all inquiries regarding services and pricing to Core Manager, Matt Rolston (530) 754-7850 Office Phone / mrrolston@ucdavis.edu Email

Up Goer Five Challenge
People's Choice Voting Ballot

PLEASE VOTE FOR YOUR FAVORITE

Select One:

SUNDAS JAVED

NICK JENSEN

EMMA SKOOG

DIANA TAFT

Place your voting ballot in ballot box
at registration table (see Karryn & Briana)

