19th Annual Microbiology Retreat
September 15, 2017

Poster Presentations

1. **Donghyun Park**, Student (Liu Lab)
   Delineating Salmonella–Host interactions using cryo-electron tomography
2. **Hui Sun**, Postdoc (Galán Lab)
   The inflammation: Good or Bad for Salmonella?
3. **William Gray**, Student (Jacobs-Wagner lab)
   Nucleoid Scaling in Bacteria and its Effect on Ribosome Dynamics
4. **Yiqiao Bao**, Student (Goodman lab)
   Identifying Secreted Antimicrobial Factor(s) in *Bacteroides fragilis*
5. **Alexandre Duprey**, Postdoc (Groisman Lab)
   DNA supercoiling expands Salmonella signal sensing capacities
6. **María Lara-Tejero**, Associate Research Scientist (Galán Lab)
   Visualization and characterization of individual type III secretion machines in live bacteria
7. **Xinyu Hong**, Student (Groisman Lab)
   Signal-dependent control of lipid A modification by temporal regulation of gene expression
8. **Manfredo Vieira Silvio**, Postdoc (Kriegal Lab)
   Spontaneous Translocation of a Gut Pathobiont Drives Autoimmunity that is Preventable by Intramuscular Vaccination
9. **Eui-Soon Park**, Postdoc (MacMicking Lab)
   Guanylate binding protein 3 (Gbp3): A new regulating factor for non-canonical inflammasome pathway
10. **Lauren Blankenship**, Postgraduate (Hatzios Lab)
    Defining the Role of an Intestinal Lectin in the Host Response to *Vibrio cholerae* Infection
11. **Kuldeep Gupta**, Postdoc (Rego Lab)
    Characterizing a putative essential cell elongation factor in mycobacteria
12. **Mac Crite**, Student (DiMaio Lab)
    Spatially-Restricted Protein Tagging Identifies Novel HPV Entry Factors
13. **Christina Lin**, Student (Kazmierczak Lab)
    Understanding the Heterogeneous Expression of the Type III Secretion System in Pseudomonas aeruginosa
14. **Emilee Shine**, Student (Crawford Lab)
    Structural and functional characterization of ClbS, a cyclopropane hydrolase that confers colibactin resistance
15. **Tobias Geiger**, Postdoc (Galán Lab)
The secretion of typhoid toxin

16. **Luying Liu**, Student (Roy Lab)
The *Legionella pneumophila* effector RavY is essential for intracellular replication but not vacuole formation

17. **Wei-Hsiang Lin**, Postdoc (Jacobs-Wagner Lab)
Studying single-cell metabolism using fluorescence biosensor

18. **Agnieszka Maminska**, Postdoc (MacMicking Lab)
A New Sensory System for Detecting Cytosolic Pathogens: Sulfated DAMPs Mobilize Human GBPs to Control Infection

19. **Setsu Kato**, Associate Research Scientist (Emonet Lab)
Spatial Self-Organization Resolves Conflicts Between Individuality and Collective Migration

20. **Qingcai Meng**, Postdoc (MacMicking Lab)
Modeling NLR-GBP inflammasome and signaling circuits

21. **Emily Putnam**, Student (Goodman Lab)
Corrinoid utilization in Bacteroides thetaiotaomicron

22. **Shawna Reed**, Postdoc (Roy Lab)
Invertebrate host infection reveals the function of secreted *Coxiella burnetii* effector proteins

23. **Pradeep Kumar**, Associate Research Scientist (MacMicking Lab)
A bipartite GBP1-GBP5 sensor system detects cyclic dinucleotides for NLRP3 inflammasome activation

24. **Sandhya Ganesan**, Postdoc (Roy Lab)
IFNγ restricts the growth of *Coxiella burnetii* in the lysosome

25. **Lissette Velasquez**, Student (Palm Lab)
IgA Glycosylation: Mediator of Microbial Homeostasis and Intestinal Health?

26. **Kyle Tretina**, Postdoc (MacMicking Lab)
Cell-autonomous immunity to apicomplexan parasites

27. **Sam Fels**, Postdoc (Galán Lab)
Impact of Host Microbiota on *C. jejuni* Gut Colonization

28. **Wang Chunyan**, Postdoc (Liu Lab)
Insight into Initial Infection of Bacteriophage P22 using Electron Tomography

29. **Katie Kortright**, Student (Turner Lab)
Phage selection against virulence factors contributing to intracellular spread of *Shigella flexneri*

30. **Aaron Wexler**, Student (Goodman Lab)
Human gut bacteria capture vitamin B₁₂ from their environment and host via cell surface-exposed lipoproteins
31. **Kelsey Haugh**, Student (Mothes Lab)
   Investigating early events in vertical retrovirus transmission

32. **Guy Townsend**, Associate Research Scientist (Groisman Lab)
   The host diet controls production of a colonization factor in a human gut commensal bacterium

33. **John Ventura**, Student (Mothes Lab)
   Transmitted Founder HIV-1 reporter viruses allow for in vivo imaging of HIV-1 infection and dissemination in humanized mice

34. **Shu-Jung Chang**, Postdoc (Galán Lab)
    Mechanisms of typhoid toxin export from S. Typhi-Infected Cells

35. **Brandon Jutras**, Postdoc (Jacobs-Wagner Lab)
    Borrelia burgdorferi peptidoglycan- the culprit of Lyme arthritis?

36. **Maolin Lu**, Postdoc (Mothes Lab)
    Associating HIV-1 Env Trimer Structures with Functional Env Conformational States by smFRET Analysis

37. **Mauricio Pontes**, Associate Research Scientist (Groisman Lab)
    Reciprocal control of translation and phosphate homeostasis during low Mg2+ stress

38. **Shiwei Zhu**, Postdoc (Liu Lab)
    Molecular architecture of the sheathed polar flagellum in Vibrio alginolyticus

39. **Zhuan Qin**, Postdoc (Liu Lab)
    In situ structure of the flagellar export apparatus in Borrelia burgdorferi

40. **Yingjie Xiang**, Student (Jacobs-Wagner Lab)
    Probing the DNA-Driven Spatial Heterogeneity Using Single Particle Tracking

41. **Molly Scott**, Student (Jacobs-Wagner Lab)
    New tools for studying the Lyme disease bacterium, Borrelia burgdorferi

42. **Carmen Butan**, Associate Research Scientist (Galán Lab)
    Deciphering the architecture of the Salmonella type III secretion export apparatus

43. **Michael Zimmerman**, Postdoc (Goodman Lab)
    Harnessing variation in the gut microbiota for personalized medical treatment

44. **Ethan Rundell**, Student (Kazmierczak Lab)
    Determinants of Intrinsic Antibiotic Resistance in Pseudomonas aeruginosa

45. **Jonathan Grover**, Postdoc (Mothes Lab)
    Conformational Effects of Small-Molecule CD4-Mimetics on the HIV-1 Envelope Trimer
46. **Hubert Salvail**, Postdoc (Groisman Lab)
Regulating PhoP regulon with a small peptide in Salmonella

47. **Harish Nair Ramanathan**, Associate Research Scientist (Lindenbach Lab)
Bacterial Effectors as Tool Kits to Identify Host Factors in Flaviviridae Replication.

48. **Alita Burnmeister**, Postdoc (Turner Lab)
Evolution of phage-mediated transfer of antibiotic resistance genes

49. **Victor Bass**, Student (Miller-Jensen Lab)
NF-κB-chromatin interactions drive diverse viral phenotypes by modulating transcriptional bursting

50. **Ruoxi Pi**, Student (Mothes Lab)
CD169 is required for eliciting protective CD8 T cell response against pathogenic retrovirus infection

51. **Pradeep Uchil**, Associate Research Scientist (Mothes Lab)
CD169 protects mice from pathogenic retrovirus infection by limiting virus dissemination

52. **Junya Kato**, Associate Research Scientist (Galán Lab)
A protein secreted by type III pathway exerts a novel function to extracellularly assist the needle assembly in Salmonella

53. **Jeongjoon Choi**, Postdoc (Groisman Lab)
Activation of the master virulence regulator PhoP in acidic pH requires the RNA chaperone CspC

54. **Jinki Yeom**, Associate Research Scientist (Groisman Lab)
Specific protection of protease substrates by reduction in adaptor levels

55. **Bentley Lim**, Postdoc (Goodman Lab)
Engineered Regulatory Systems Modulate Gene Expression of Human Commensals in the Gut

56. **Yani Hu**, Associate Research Scientist (Sutton Lab)
UBXN1 Negatively Regulates Canonical NF-κB Signaling by Inhibiting the Degradation of IκBa

57. **Ryan Gaudet**, Postdoc (MacMicking Lab)
Cell-Autonomous Immunity in Non-Immune Cells: Systems Genomics to Delineate Host Defense Networks

58. **Yekaterina Kovalyova**, Student (Hatzios Lab)
Chemically Probing Oxidative Crosstalk at the Host-Microbe Interface