

The 104th Annual Southeastern Branch American Society for Microbiology Meeting Microbial Dynamics and Infection

Friday, November 30, 2018

4:00 PM - 5:30 PM Clough Atrium	Registration
5:40 PM - 7:00 PM Clough Auditorium 144	Keynote Address I Session Chair: Frank Stewart
	"Killing Mycobacteria – One Cell at a Time" Hesper Rego, Department of Microbial Pathogenesis, Yale School of Medicine
7:00 PM - 8:30 PM Clough Atrium	Reception

Saturday, December 1, 2018

8:30 AM - 10:00 AM Clough Auditorium 144	Microbes and hosts Session Chair: Neha Garg
	"Modeling the Synergistic Combination of Host Immunity with Phage and Probiotics in Eliminating Bacterial Pathogens" Chung Yin (Joey) Leung, School of Biological Sciences and School of Physics, Georgia Institute of Technology
	"The <i>Pseudomonas aeruginosa</i> Transcriptome in Human Infections" Daniel M. Cornforth, School of Biological Sciences, Georgia Institute of Technology and Emory-Children's Cystic Fibrosis Center
	"Immunomodulation Suppresses Adaptive Immunity to <i>Bordetella</i> Infection" Monica Cartelle Gestal, Department of Infectious Diseases, University of Georgia
	"Impacts of Symbiont-Produced Natural Products on Host Fitness" Nicole Lopanik, School of Earth and Atmospheric Sciences, School of Biological Sciences, Georgia Institute of Technology
	" <i>wmk</i> Is a <i>Wolbachia</i> Prophage WO Gene That Kills Male <i>Drosophila</i> " Jessamyn Perlmutter, Department of Biological Sciences, Vanderbilt University
8:30 AM - 10:00 AM Clough Auditorium 152	Bacterial physiology and metabolism Session Chair: Sophie Darch
	"Decoding <i>Staphylococcus aureus</i> Metabolism During Polymicrobial Infection with Next-Generation Sequencing Techniques" Carolyn B. Ibberson, School of Biological Sciences, Georgia Institute of Technology and Emory-Children's Cystic Fibrosis Center
	"ZorO Inhibits Cell Growth by Membrane Depolarization and ATP Reduction" Bikash Bogati, Department of Microbiology, University of Tennessee
	" <i>Toxoplasma gondii</i> , an Obligate Intracellular Protozoan Pathogen, Relies on Its Own Heme Biosynthesis for Infection" Zhicheng Dou, Department of Biological Sciences, Clemson University
	"RstA Directly Represses Toxin Gene Expression in <i>Clostridioides difficile</i> " Adrienne N. Edwards, Department of Microbiology and Immunology, Emory University School of Medicine
	"Remodeling of O Antigen Chain-Length in Mucoic <i>Pseudomonas aeruginosa</i> via Transcriptional Repression of <i>wzz2</i> " Ashley Cross, Microbiology and Molecular Genetics, Emory University School of Medicine
10:00 AM - 10:15 AM	Break

<p>10:15 AM - 11:45 AM Clough Auditorium 144</p>	<p align="center">Viruses and microbial interactions Session Chair: Brian Hammer</p> <p>"Induction of Senescence and Cell Death in Cervical Cancer Cells by Exogenous Delivery of Viral Protein E2" Julia LeCher, Department of Molecular & Cellular Biology, Kennesaw State University</p> <p>"Interactions between Human Norovirus VLPs and a Commensal Bacterium Alter Bacterial Gene Expression" Melissa K. Jones, Microbiology and Cell Science Department, University of Florida</p> <p>"Antibiotic-mediated Killing of Non-replicating Populations of Bacteria Generated in Different Ways" Adithi Govindan, Department of Biology, Emory University</p> <p>"Determining the Impact of <i>Pseudomonas aeruginosa</i> Population Diversity in the Cystic Fibrosis Lung" Sheyda Azimi, School of Biological Sciences, Georgia Institute of Technology</p> <p>"Catalyzing Change in STEM Graduate Education" Laura B. Regassa, National Science Foundation</p>
<p>10:15 AM - 11:45 AM Clough Auditorium 152</p>	<p align="center">Climate change and microbial ecology Session Chair: Joel Kostka</p> <p>"Targeted Analysis of 'Omics Data Reveals the Prevalence of <i>Nitrosotenuis</i> spp. <i>Thaumarchaeota</i> in Low-Latitude Freshwater Ecosystems" Julian Damashek, Department of Marine Sciences, University of Georgia</p> <p>"Crude Oil Disturbance Selects for Generalists, not Specialists, in a Beach Sand Microbial Community" Patrick Heritier-Robbins, Department of Civil and Environmental Engineering, Georgia Institute of Technology</p> <p>"Nutrient Cycling and Microbial Diversity in the Root Zone Across a <i>Spartina alterniflora</i> Primary Productivity Gradient" Jose L. Rolando, School of Biological Sciences, Georgia Institute of Technology</p> <p>"Understanding the Sources of Contamination and Microbial Pathogens in Stormwater-impacted Bodies of Water in Canada" Megan Beaudry, School of Public Health, University of Alberta</p> <p>"Biogeography, Microdiversity, and Co-Abundance Patterns of Global Sequence-Discrete <i>Prochlorococcus</i> Populations" Roth Conrad, School of Biological Sciences, Georgia Institute of Technology</p>
<p>11:45 AM - 12:00 PM</p>	<p align="center">Break</p>
<p>12:00 PM - 1:00 PM Clough Auditorium 144</p>	<p align="center">Keynote Address II Session Chair: Frank Stewart</p> <p>"Canary in the Coalmine: How the Neonatal Gut Microbiome Promotes Atopy and Asthma Development in Childhood" Susan Lynch, Department of Medicine, University of California San Francisco</p>
<p>1:00 PM - 2:00 PM Clough Atrium</p>	<p>Lunch provided</p>
<p>1:00 PM - 2:00 PM Clough Classroom 146</p>	<p>Executive Meeting</p>
<p>2:00 PM - 3:30 PM Clough Auditorium 144</p>	<p align="center">Antimicrobial resistance Session Chair: Sam Brown</p> <p>"Identification of a β-lactamase that Contributes to Intrinsic β-lactam Resistance in <i>Clostridium difficile</i>" Brindar Sandhu, Department of Microbiology and Immunology, Emory University School of Medicine</p> <p>"Chemical Biology Insights into Outer Membrane Protein Biogenesis" Marcin Grabowicz, Department of Microbiology & Immunology, Emory University School of Medicine</p> <p>"Making Sense of The Antisense: Gene Silencing Oligomers as a Therapeutic Approach Against Multidrug Resistant <i>Pseudomonas aeruginosa</i> <i>in vitro</i> and <i>in vivo</i>" Dina A Moustafa, Department of Pediatrics, Emory University School of Medicine</p> <p>"Mutation Rates And the Likelihood of Acquired Rifampin Resistance: It's Worse than You Think, But Phage Can Help" James Dickey, Medical College of Georgia</p>

	"Echinocandin and Azole Drug Stress Decreases Genome Stability of Multiple <i>Candida albicans</i> Ploidy States" Ognenka Avramovska, Department of Genetics and Molecular Biology, Emory University School of Medicine
2:00 PM - 3:30 PM Clough Auditorium 152	Modeling microbial communities Session Chair: Frank Rosenzweig
	"Collateral Sensitivity of Antibiotic-resistant Microbes" Howard Weiss, School of Mathematics, Georgia Institute of Technology
	"The Shape and Trajectory of Bacterial Infection" William K. Chang, Systems and Computational Biology Department, Albert Einstein College of Medicine
	"Temporal and Spatial Dynamics of Microbial Community Assembly in a Temperate, Urban Headwater Stream" Morgan E. Teachey, Department of Microbiology, University of Georgia
	"Competition in Dense Bacterial Biofilms through Killing and Replication" Gabi Steinbach, School of Physics, Georgia Institute of Technology
	"Quantifying Impact of Gut Microbiota on <i>Plasmodium yoelii</i> Infection Dynamics" Aram Bejnood, Department of Mathematics, University of Tennessee
3:30 PM - 3:45 PM	Break
3:30 PM - 4:30 PM Clough Classroom 102	Poster Session I Odd Numbered Posters
4:30 PM - 5:30 PM Clough Classroom 102	Poster Session II Even Numbered Posters
Sunday, December 2, 2018	
9:00 AM - 10:30 AM Clough Auditorium 144	Evolutionary dynamics Session Chair: William Ratcliff
	"Efficacy and Evolutionary Robustness of a Phage-antibiotic Combination Therapy" James Gurney, School of Biological Sciences, Georgia Institute of Technology
	"Bacterial Relics from the Pangaea Super-continent?" Eric D. Becraft, Department of Biology, University of North Alabama
	"Interactions between Clinical Isolates of <i>Pseudomonas aeruginosa</i> and <i>Staphylococcus aureus</i> from Cystic Fibrosis Lung Infections" Eryn Bernardy, Department of Pediatrics, Emory University School of Medicine
	"MiGA – The Microbial Genomes Atlas: Expanding the Catalogued Diversity of <i>Archaea</i> and <i>Bacteria</i> " Luis Miguel Rodriguez Rojas, School of Civil and Environmental Engineering, Georgia Institute of Technology
	"Do Phytoplankton Use Dead Competitors to Assess Predation Risk?" Emily Brown, School of Biological Sciences, Georgia Institute of Technology
9:00 AM - 10:30 AM Clough Auditorium 152	Molecular biology of microbes Session Chair: Sheyda Azimi
	"Identification and Characterization of a Novel, Active Type VI Secretion System Locus in Environmental Isolates of <i>Vibrio cholerae</i> " Harshini Chandrashekar, School of Biological Sciences, Georgia Institute of Technology
	"The Munchies: Carbon Flux Supporting Heterotrophic-Autotrophic Interactions in Surface Ocean Bacteria" Frank Xavier Ferrer-González, Department of Marine Science, University of Georgia
	"Regulation of a Virulence Switch by an Antibiotic Resistance Gene in <i>Acinetobacter baumannii</i> " Sarah Anderson, Department of Microbiology and Immunology, Emory University Medical School
	"Cathepsin C-like protease 1 (TgCPC1) plays a key role in maturing invasion effectors in <i>Toxoplasma gondii</i> , a protozoan human pathogen" Lillian Dillard, Department of Biological Sciences, Clemson University
	"Analysis of <i>Rickettsia philipii</i> Gene Expression using Reverse Transcription PCR" Sunmisola Alade, Jiann-Ping Hsu College of Public Health, Georgia Southern University

10:30 AM - 11:30 AM Clough Atrium	Concluding Brunch
11:45 AM - 12:30 PM Clough Auditorium 144	Awards Ceremony