

NC AMERICAN SOCIETY FOR MICROBIOLOGY MEETING – Oct 12, 2024



AGENDA



TIME	ACTIVITY		
8:00 AM - 8:45 AM	Check-In (<i>CMS building</i>) and Breakfast (<i>the tent</i>)		
8:45 AM - 9:00 AM	Opening Remarks (<i>CMS auditorium</i>)		
9:00 AM - 10:00 AM	Keynote Talk by Dr. Anne Thompson, <i>ASM Distinguished Lecturer (CMS auditorium)</i> – <i>“No longer mourn for me when I am dead: How microbial mortality supports life in the oceans”</i>		
10:15 AM – 11:30 PM	Morning Talk Sessions		
	<i>TIME</i>	<i>SYMBIOSIS & ECOLOGY CMS AUDITORIUM</i>	<i>CLINICAL MICROBIOLOGY MARBIONC ROOM</i>
	10:15 – 10:30 AM	Olivia L. Mathieson, NCSU	Marco Gotijo, Duke
	10:30 – 10:45 AM	Grace Kennedy, UNCW	Anika Rueppell, UNC-CH
	10:45 – 11:00 AM	Adrian A Estrada Graf, Duke	Amanda Velez, UNC-CH
	11:00 – 11:15 AM	Tori Jefferson, UNCW	Erin Mills, UNCC
	11:15 – 11:30 AM	Madison Cox, UNCW	Luz Saavedra Sanchez, Duke
11:30 PM – 12:30 PM	Poster Session 1 (<i>MARBIONC building</i>)		
12:30 PM – 1:30 PM	Box Lunch (<i>the tent</i>)		
1:30 PM – 3:00 PM	Afternoon Talk Sessions		
	<i>TIME</i>	<i>MICROBIOME & THERAPEUTICS CMS AUDITORIUM</i>	<i>MOLECULAR MICROBIOLOGY MARBIONC ROOM</i>
	1:30 – 1:45 PM	William Parker, UNC-CH	Morgan Milton, ECU
	1:45 – 2:00 PM	Mashaal Aljumaah, NCSU	Dongheon Lee, Duke
	2:00 – 2:15 PM	Yunan Hu, UNC-CH	Krishna Majitha, UNCC
	2:15 – 2:30 PM	Akamu Jude Ewunkem, WSSU	Jodi Ogle, ECU
	2:30 – 2:45 PM	Olivia Farrar, UNCW	Sarah Kwabia, UNC-CH
	2:45 – 3:00 PM	Jacob Mayer, UNCW	Juan D. Valencia Bacca, WFU
3:00 PM – 4:00 PM	Poster Session 2 (<i>MARBIONC building</i>)		
4:00 PM – 4:30 PM	Award Announcements and Closing Remarks (<i>CMS Auditorium</i>)		
4:30 PM – 5:30 PM	Munchies and Happy Hour (<i>the tent</i>)		

MORNING TALKS

<i>TIME</i>	<i>SYMBIOSIS & ECOLOGY CMS AUDITORIUM</i>	<i>CLINICAL MICROBIOLOGY MARBIONC ROOM</i>
10:15 – 10:30 AM	Olivia L. Mathieson, NCSU <i>Characterizing insertion sequence abundance and diversity in genomes of the marine invertebrate-associated symbiont Candidatus Thiosymbion</i>	Marco Gotijo, Duke <i>Mycobacterium tuberculosis polyketide synthase 12 manipulates the macrophage microenvironment</i>
10:30 – 10:45 AM	Grace Kennedy, UNCW <i>Exploring Ammonia-oxidizing Archaea within the Ascidian Tunic</i>	Anika Rueppell, UNC-CH <i>Macrophage visualization in S. aureus infection of Danio rerio</i>
10:45 – 11:00 AM	Adrian A Estrada Graf, Duke <i>Unveiling the Impact of Microbiomes on Host Metabolism in Open Raceway Cultures using Comparative Metatranscriptomics</i>	Amanda Velez, UNC-CH <i>Staphylococcus aureus pathogenesis within the polymicrobial diabetic chronic wound</i>
11:00 – 11:15 AM	Tori Jefferson, UNCW <i>A Deep Freeze: Disruption of the Coral Microbiome During Cryopreservation and the Development of Novel Therapeutics for Recovery</i>	Erin Mills, UNCC <i>RIG-I and cGAS mediate the antimicrobial and inflammatory responses of primary murine osteoblasts and osteoclasts to Staphylococcus aureus</i>
11:15 – 11:30 AM	Madison Cox, UNCW <i>An evaluation of acid decalcification methods to estimate coccolithophore PIC:POC ratios</i>	Luz Saavedra Sanchez, Duke <i>The Shigella flexneri effector IpaH1.4 degrades the E3 ligase RNF213 and protects Shigella against ubiquitylation</i>

AFTERNOON TALKS

<i>TIME</i>	<i>MICROBIOME & THERAPEUTICS CMS AUDITORIUM</i>	<i>MOLECULAR MICROBIOLOGY MARBIONC ROOM</i>
1:30 – 1:45 PM	William Parker, UNC-CH <i>A Framework for the Analysis of Host-Microbiome Interactions Using Experimental Data</i>	Morgan Milton, ECU <i>It's all in the movement: exploring the flexibility and binding interactions of Vibrio fischeri biofilm regulatory proteins</i>
1:45 – 2:00 PM	Mashaal Aljumaah, NCSU <i>The Emerging Link between Microbial Derived DPP-4 and Cognitive, and Metabolic Health: The Gut-Microbiome Perspective</i>	Dongheon Lee, Duke <i>Biomolecular Phase Separation Suppresses Gene Expression in Bacteria</i>
2:00 – 2:15 PM	Yunan Hu, UNC-CH <i>Galacto-oligosaccharides enhance the intestinal barrier function</i>	Krishna Majitha, UNCC <i>RIG-I Promotes Protective Type I Interferon Production by Human Glial Cells During Bacterial Meningitis.</i>
2:15 – 2:30 PM	Akamu Jude Ewunkem, WSSU <i>Trojan Horse Strategy May or May Not Defeat Drug-Resistant Pathogens</i>	Jodi Ogle, ECU <i>How does a Wzx-Wzy-type polysaccharide biosynthetic pathway play a role in Brucella virulence?</i>
2:30 – 2:45 PM	Olivia Farrar, UNCW <i>Isolation and Screening of Promising Novel Antibiotic-Producing Bacteria Cultivated from in-situ Diffusion Chambers</i>	Sarah Kwabia, UNC-CH <i>In vitro Evolution of α-(1,3)-glucan and Virulence in Histoplasma spp.</i>
2:45 – 3:00 PM	Jacob Mayer, UNCW <i>Equine Herpesvirus Type 1-Mediated Oncolysis of Human Prostate Cancer Cells</i>	Juan D. Valencia Bacca, WFU <i>Complement control of Klebsiella pneumoniae colonization and dissemination</i>

POSTER SESSION 1

POSTER	PRESENTOR	TITLE
1	Erica Babusci	<i>The Effect of Microencapsulation on the Growth of the Fungal Genera Trichoderma and Auerobasidium</i>
2	Ariyon Bailey	<i>Experimental Evolution of Gallium Resistance in Staphylococcus aureus</i>
3	Nadia Bell	<i>Evaluation of Drinkable Yogurt Flavored with Date Fruit</i>
4	Jazmyne Bradley	<i>Antifungal Activity of Bismuth Thiols Against Fungi</i>
5	Sarah Kate Childs	<i>NC shipwrecks as habitats and reservoirs of Vibrio spp.</i>
6	Qing Dai	<i>Optimizing Sequencing Strategies for Low Biomass Samples: A Comparative Analysis and Best Practices</i>
7	Keegan Gaddy	<i>Marine symbiont Vibrio fischeri induces toxic phenotypes and mortality in zebrafish embryos.</i>
8	David Holland	<i>Iron-resistant populations of Staphylococcus aureus: is a serious concern.</i>
9	Brenna Hutchings	<i>Depuration depletes transient bacteria within Pyura vannamei without changing microbial alpha-diversity</i>
10	Jaclyn Levine	<i>Characterizing the Microbiome of the Killer Ascidian, Trididemnum solidum</i>
11	Mazzy Morrison	<i>Seasonal and Salinity Variation in Ammonia Oxidizing Archaea Abundance and Distribution around Topsail Island NC</i>
12	Sondai Riddick	<i>The Role of Microenvironments in Shaping Microbial Community Response to Perturbations</i>
13	Autumn Robinson	<i>Enhanced Biological Phosphorus Removal In Wastewater Treatment: Microbial Community Response To Disruptions And Stable Conditions</i>
14	Lauren A. Sells	<i>Culturing, Identifying, and Imaging Ammonia-Oxidizers from Different North American Coastal Ecosystems</i>
15	Maggie Shostak	<i>Evaluation of Biofilm Assembly and Microbial Diversity on a Freshwater, Ferrous-Hulled Shipwreck</i>
16	Malachi Williams	<i>100-Day Evolution Experiment of Simulated Microgravity</i>



POSTER SESSION 2

POSTER	PRESENTOR	TITLE
17	A'Iyiha Beard	<i>Green Synthesis–Mediated Nanoparticles: Antimicrobial Activity and Genomics Analysis</i>
18	Elody Bensch	<i>Exploring the Molecular Mechanisms of Biofilm Regulation: The Roles of SypA and SypE in Vibrio fischeri</i>
19	Tatyana Bowers	<i>Why worry about Gallium-resistant Staphylococcus aureus?</i>
20	Saraye Cius	<i>Antibacterial Activity of Extracts of Lingzhi Mushroom against Pathogenic Bacteria</i>
21	Kaila Cooley	<i>Investigating the role of interferon epsilon signaling in GBS vaginal colonization models in pregnant and non-pregnant mice</i>
22	Bliss Daodu	<i>Antimicrobial of Green Synthesis Silver Nanoparticles Targeting Infectious Agent and Genomics Analysis</i>
23	Micah Downs	<i>Using Engineered Yeast to Fight Ulcerative Colitis</i>
24	Andrew Dunphy	<i>Glia-recruited neutrophils respond to Neisseria meningitidis in a manner that could exacerbate further leukocyte recruitment</i>
25	Isabel Garcia	<i>Identifying Potential Cost-Effective Alternatives in the Treatment of Small Intestinal Bacterial Overgrowth (SIBO)</i>
26	MD MAIDUL ISLAM	<i>Understanding the role of DksA in Klebsiella pneumoniae gastrointestinal colonization</i>
27	Khalia McClure	<i>Analysis of OmpC and OmpF Porin Expression in Wild Type and ompR Mutant E. coli</i>
28	Niki Dwight, Nicky Mendoza-Quinonez	<i>Leveraging allelopathy for drug discovery: ocean phytoplankton metabolomes as anti-T. gondii drug candidates: a bioassay strategy</i>
29	Lydia Merrills	<i>In Vitro Antimicrobial Efficacy Assessment of Ethanolic, Aqueous and Dual Extracts of Lingzhi the “herb of spiritual potency” and Genomic analysis</i>
30	Noah Nutter	<i>Context-Dependent Gene Regulation in Streptococcus pneumoniae during colonization of the upper respiratory tract.</i>
31	Lanayah Pressley	<i>Bee Synthesized nanoparticles Antimicrobial Activity and Whole Genomics Analysis</i>
32	Dylan Riddle	<i>Investigating the role of Hsp70 during Staphylococcus aureus infection of primary murine osteoblasts</i>
33	Isabella Russ	<i>Redox Stress-Induced Mutagenesis in Escherichia coli F Plasmid During Conjugation</i>
34	Jacob Krakover, Lydia Simmons	<i>Fundamental understanding of Vibrio fischeri biofilm formation through study of the transcriptional regulator SypG</i>
35	Kira Standish	<i>Biofilm regulatory protein SypA from Vibrio fischeri: a look into an unusual STAS protein</i>
36	Lane Tompkins	<i>Laser-Targeted Bacterial Inhibition: Exploring Light-Based Therapies for Acne Management</i>
37	Gopinath Venugopal	<i>Differential immune alterations between pre- and pro-inflammatory stages of mice infected with Y. pestis.</i>
38	Zahirah Williams	<i>Antimicrobial activity of various mushroom extracts against pathogenic multi drug resistant Candida tropicalis.</i>

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