

## MI-ASM Spring 2025 Annual Meeting

### Oral presentations:

#### Peggy Cotter Awardees

(1) **High throughput mapping of the interaction of Streptokinase reveals residues critical for binding to plasminogen and potentially *Streptococcus* pathogenesis**

*Presenter:* Dr. Srishti Baid, University of Michigan-Ann Arbor

Correspondence: [sbaid@umich.edu](mailto:sbaid@umich.edu)

(2) ***Vibrio cholerae* modulates cyclic di-GMP in response to zinc and quorum sensing via a horizontally acquired genomic island**

*Presenter:* Dr. Aathmaja Anandhi Rangarajan, Michigan State University

Correspondence: [anandhir@msu.edu](mailto:anandhir@msu.edu)

(3) **Intestinal inflammation promotes *Campylobacter jejuni* growth during infection**

*Presenter:* Dr. Ritam Sinha (Peggy Cotter Awardee)

Correspondence: [sinharit@msu.edu](mailto:sinharit@msu.edu)

#### Graduate students:

(1) **Breaking the barrier: Discovery and profiling of novel MmpL3 inhibitors against *Mycobacterium abscessus***

*Presenting author:* Bassel Abdalla, Michigan State University

Correspondence: [jameibas@msu.edu](mailto:jameibas@msu.edu)

(2) **Identification of contingency loci in phage**

*Presenting author:* Jasper B. Gomez, Michigan State University

Correspondence: [gomezjas@msu.edu](mailto:gomezjas@msu.edu)

(3) **The E3 ubiquitin ligase of ICP0 blocks the hippo kinase cleavage triggered by inflammasome activation in HSV-1 infection**

*Presenting author:* Udayan Guha, Wayne State University

Correspondence: [guhau@wayne.edu](mailto:guhau@wayne.edu)

(4) **Standardizing an antimicrobial susceptibility testing protocol for *Mycoplasma bovis***

*Presenting author:* Kendall Mara, Michigan State University

Correspondence: [marakend@msu.edu](mailto:marakend@msu.edu)

(5) ***Sneathia*: An Emerging Pathogen in the Female Reproductive Tract**

*Presenting author:* Natalie McGinnis, Wayne State University

Correspondence: [gv6088@wayne.edu](mailto:gv6088@wayne.edu)

(6) **PhoPR remodels *Mycobacterium tuberculosis* metabolism to restrict growth on propionate at acidic pH**

*Presenting author:* Heather Murdoch, Michigan State University

Correspondence: [murdoc45@msu.edu](mailto:murdoc45@msu.edu)

**(7) The role of a HRxxN histidine kinase in *Brucella ovis* general and detergent stress responses**

*Presenting author:* Emily Perez, Michigan State University

Correspondence: [perezem2@msu.edu](mailto:perezem2@msu.edu)

**(8) Understanding the differential substrate recognition by the E3 ubiquitin ligase activity of HSV-1 immediate early protein ICP0**

*Presenting author:* Eleazar Reward, Wayne State University

Correspondence: [reward.eleazar@wayne.edu](mailto:reward.eleazar@wayne.edu)

**Poster presentations:**

Undergraduates

**(1) FT-IR Spectroscopy for the Identification of Binding Sites for Cr absorption in Bacterial Strains**

*Presenting author:* Lana Abbas, University of Michigan-Dearborn

Correspondence: [abbasl@umich.edu](mailto:abbasl@umich.edu)

**(2) Phage Interactions with defense gene VCA0483**

*Presenting author:* Mehak Banga, Michigan State University

Correspondence: [bangameh@msu.edu](mailto:bangameh@msu.edu)

**(3) Predicting transcriptional network evolution across Alphaproteobacteria**

*Presenting author:* Charlotte Baron, University of Michigan-Flint

Correspondence: [thorina@umich.edu](mailto:thorina@umich.edu)

**(4) Profiling of Fecal-Derived Microbial Species in the Rouge River Using DNA qPCR Arrays**

*Presenting author:* Reeghan Book, University of Michigan-Dearborn

Correspondence: [reeghanb@umich.edu](mailto:reeghanb@umich.edu)

**(5) Understanding Bacterial-Metal Interactions Analyses of ATR-FTIR Spectroscopy Data**

*Presenting author:* Oliver Coutinho, University of Michigan-Dearborn

Correspondence: [coutinho@umich.edu](mailto:coutinho@umich.edu)

**(6) Testing the Capacity of Environmental Bacteria to Control Ice Formation**

*Presenting author:* Allen Cureton, Michigan Technological University

Correspondence: [awcureto@mtu.edu](mailto:awcureto@mtu.edu)

**(7) Assessing the antimicrobial activity of hexocannabintriol and its analogs**

*Presenting author:* Brooklyn Dean, University of Michigan-Flint

Correspondence: [bjdean2005@gmail.com](mailto:bjdean2005@gmail.com)

**(8) Defining glycerol binding to the *Mycobacterium tuberculosis* protein PPE51**

*Presenting author:* Madison Enviya, Michigan State University

Correspondence: [enviyama@msu.edu](mailto:enviyama@msu.edu)

**(9) Investigating the Role of EipA During *Brucella ovis* Infection of Macrophage-like Cells**

*Presenting author:* McKenna Goike, Michigan State University

Correspondence: [goikemck@msu.edu](mailto:goikemck@msu.edu)

**(10) Siderophore Production by Multiple Metal-Resistant Bacterial Strains Isolated from Saint Clair River Sediments**

*Presenting author:* Yanesa Guzman, University of Michigan-Dearborn

Correspondence: [ylguzman@umich.edu](mailto:ylguzman@umich.edu)

**(11) Thiosulfate-Citrate-Bile Salts-Sucrose (TCBS) selects for quinolone resistance in *Vibrio cholerae* DNA repair mutants**

*Presenting author:* Drew Johnson, Michigan State University

Correspondence: [john8010@msu.edu](mailto:john8010@msu.edu)

**(12) Copper Biosorption by Siderophore-producing Bacterial Strains**

*Presenting author:* Diana Kasperek, University of Michigan-Dearborn

Correspondence: [dkaspere@umich.edu](mailto:dkaspere@umich.edu)

**(13) The Use of Attenuated Total Reflectance Fourier Transform Infrared (ATR-FTIR) Spectroscopy to Analyze Pb-Induced Changes in Bacterial Strains**

*Presenting author:* Amin Kassem, University of Michigan-Dearborn

Correspondence: [aminkass@umich.edu](mailto:aminkass@umich.edu)

**(14) Regulation of biofilm and motility with znuABC deletion in *Vibrio Cholerae***

*Presenting author:* Preethika Lakshminarayanan, Michigan State University

Correspondence: [slsplakshmi@gmail.com](mailto:slsplakshmi@gmail.com)

**(15) Developing a Random Bacteriophage Transposon Library**

*Presenting author:* Ashlynn Linet, Michigan State University

Correspondence: [linetash@msu.edu](mailto:linetash@msu.edu)

**(16) Identifying cell wall gene in *Candida albicans* and *Streptococcus mutans* that form carious biofilms**

*Presenting author:* Ji X. Luth, University of Detroit Mercy

Correspondence: [luthjx@udmercy.edu](mailto:luthjx@udmercy.edu)

**(17) Zinc and quorum sensing regulates cyclic di-GMP in *Vibrio cholerae* via a genomic island-encoded phosphodiesterase**

*Presenting author:* Marissa K. Malleck, Michigan State University

Correspondence: [malleckm@msu.edu](mailto:malleckm@msu.edu)

**(18) Mechanism Cd Absorption and Removal by *Klebsiella* sp. and *Raoultella* sp. in Aqueous Solutions**

*Presenting author:* Hawraa Najaf, University of Michigan-Dearborn

Correspondence: [hnajaf@umich.edu](mailto:hnajaf@umich.edu)

**(19) Diverse Aminoglycoside Gene Cassettes (*aadA1*, *aadB*, and *aacA4*) in Class 1 Integrons in *Escherichia coli* Strains Isolated from Three Urban Watersheds**

*Presenting author:* Zainab Nassereddine, University of Michigan-Dearborn

Correspondence: [zainabnn@umich.edu](mailto:zainabnn@umich.edu)

**(20) Does the way *Candida auris* differs from *Candida albicans* in one protein family relate to its drug resistance or emergence as an urgent threat to human health?**

*Presenting author:* Carson Noyes, Grand Valley State University

Correspondence: [noyesca@mail.gvsu.edu](mailto:noyesca@mail.gvsu.edu)

**(21) Electron Microscopy Techniques and Energy Dispersive X-ray Spectrometry as Tools to Characterize Biosorption of Lead by Bacterial Strains from an Urban Watershed**

*Presenting author:* Somie Opara, University of Michigan-Dearborn

Correspondence: [sopara@umich.edu](mailto:sopara@umich.edu)

**(22) Biosorption mechanisms of metal removal by locally isolated bacterial strains**

*Presenting author:* Grace Pagnucco, University of Michigan-Dearborn

Correspondence: [grpagnuc@umich.edu](mailto:grpagnuc@umich.edu)

**(23) Investigation of a novel microplate method to study coaggregation between oral bacteria**

*Presenting author:* Avi Patel, University of Michigan-Ann Arbor

Correspondence: [avnpatel@umich.edu](mailto:avnpatel@umich.edu)

**(24) Antibiotic Resistant Gene Profiles in an Urban Watershed**

*Presenting author:* Florent Qyteti, University of Michigan-Dearborn

Correspondence: [florent@umich.edu](mailto:florent@umich.edu)

**(25) Identification of gene function in the *Mycobacteria* phage xeno**

*Presenting author:* Fatimah Rezk, University of Detroit Mercy

Correspondence: [rezkfm@udmercy.edu](mailto:rezkfm@udmercy.edu)

**(26) SEM-EDS and TEM-EDS Analysis of Zn Biosorption Characteristics of *Klebsiella* sp. and *Raoultella* sp.**

*Presenting author:* Claudia Shuler, University of Michigan-Dearborn

Correspondence: [cshuler@umich.edu](mailto:cshuler@umich.edu)

**(27) Metabolic Function and Surface Waters and Sediments in Urban River and Lake Watersheds**

*Presenting author:* Hannah Solanick, University of Michigan-Dearborn

Correspondence: [hansolan@umich.edu](mailto:hansolan@umich.edu)

**(28) Identifying novel phage defense systems in *Vibrio cholerae***

*Presenting author:* Ariana Straus, Michigan State University

Correspondence: [strausar@msu.edu](mailto:strausar@msu.edu)

## Poster presentation

### Graduate students

(1) **Exploring *Vibrio cholerae* Biotype Differences Using the Zebrafish Model**

*Presenting author:* Bhavita Bhaya, Wayne State University

Correspondence: [bhavita@wayne.edu](mailto:bhavita@wayne.edu)

(2) **In Vivo redox monitoring of LctR in *Campylobacter jejuni***

*Presenting author:* Chris R. Chavtur, Michigan State University

Correspondence: [chavturc@msu.edu](mailto:chavturc@msu.edu)

(3) ***Shigella* c-di-GMP phosphodiesterases regulate virulence and biofilm formation**

*Presenting author:* Candice Churaman, Western Michigan University

Correspondence: [cdt1605@wmich.edu](mailto:cdt1605@wmich.edu)

(4) **Norovirus alters host metabolism for efficient virus replication**

*Presenting author:* Adam Hafner, University of Michigan-Ann Arbor

Correspondence: [ajhafner@umich.edu](mailto:ajhafner@umich.edu)

(5) **Investigating the Antimicrobial Resistance Profiles and Genetic Diversity of Clinical *Shigella* spp. Isolates from Michigan, Michigan State University**

*Presenting author:* Kyleen Hall, Michigan State University

Correspondence: [hallkyl6@msu.edu](mailto:hallkyl6@msu.edu)

(6)  **$\alpha$ -ketoglutarate and Citrate Transporters Regulate *C. jejuni*-Mediated Commensal Colonization of Chickens**

*Presenting author:* Jessica Hodgkins, Michigan State University

Correspondence: [hodgki18@msu.edu](mailto:hodgki18@msu.edu)

(7) **Regulation of the *Legionella pneumophila* effector SidL by its Cognate Metaeffector**

*Presenting author:* Carissa A. Hutchison, Michigan State University

Correspondence: [hutch316@msu.edu](mailto:hutch316@msu.edu)

(8) **Phosphate restricts *Mycobacterium tuberculosis* growth on lactate at acidic pH**

*Presenting author:* Adam P. Kibiloski, Michigan State University

Correspondence: [kibilos3@msu.edu](mailto:kibilos3@msu.edu)

(9) **Antibacterial effect of *Oregano vulgare* essential oil on multidrug resistant *Campylobacter jejuni* and isolation of the active antibacterial compound.**

*Presenting author:* Kefas Malgwi, Michigan State University

Correspondence: [malgwike@msu.edu](mailto:malgwike@msu.edu)

(10) **BR-Bodies Promote Envelope Stress Survival and Intracellular Fitness in *Brucella***

*Presenting author:* Rosemary G. Northcote, Wayne State University

Correspondence: [northco1@msu.edu](mailto:northco1@msu.edu)

**(11) Functional Differences Provides Insights into the Pathogenic Potential of *Escherichia marmotae***

*Presenting author:* Pelumi Oladipo, Wayne State University

Correspondence: [hl8030@wayne.edu](mailto:hl8030@wayne.edu)

**(12) Implementing a CRISPR Gene Editing System in *Sinorhizobium meliloti* to Investigate Transport of Extracellular Lanthanide**

*Presenting author:* Megan Parsell, Western Michigan University

Correspondence: [megan.m.parsell@wmich.edu](mailto:megan.m.parsell@wmich.edu)

**(13) Peptide Supplementation Inversely Regulates Motility and Adherence of *Clostridium butyricum***

*Presenting author:* Nicole Salmo, Oakland University

Correspondence: [nicolesalmo@oakland.edu](mailto:nicolesalmo@oakland.edu)

**(14) Differential Effects of Iron on Methanogenesis as Both an Accelerant and a Depressant**

*Presenting author:* Jakob Sell, Western Michigan University

Correspondence: [jakob.a.sell@wmich.edu](mailto:jakob.a.sell@wmich.edu)

**(15) Antimicrobial Effects of Indole Against Drug-resistant *Campylobacter jejuni***

*Presenting author:* Grace Semaan, Michigan State University

Correspondence: [semaang1@msu.edu](mailto:semaang1@msu.edu)

**(16) Autoinducer 2 (AI-2) Mediated Signaling in *Shigella***

*Presenting author:* Pragati Singh, Western Michigan University

Correspondence: [pragati.singh@wmich.edu](mailto:pragati.singh@wmich.edu)

**(17) BR-bodies switch from mRNA decay to mRNA storage in stationary phase**

*Presenting author:* Hadi Yassine, Wayne State University

Correspondence: [gs2136@wayne.edu](mailto:gs2136@wayne.edu)

**Poster presentation**

Post-docs

**(1) Intracellular parasite *Toxoplasma gondii* triggers inflammasome-mediated Sterile Immunity**

*Presenting author:* Abdulsalam Adegoke, University of Michigan-Ann Arbor

Correspondence: [adegokea@umich.edu](mailto:adegokea@umich.edu)

**(2) Norovirus Surveillance and Whole-Genome Sequencing in Wastewater**

*Presenting author:* Anwar Kalalah, Michigan State University

Correspondence: [kalalaha@msu.edu](mailto:kalalaha@msu.edu)

**(3) The Post-antibiotic Effects of MmpL3-targeted and Nitro-containing Compounds in *Mycobacterium tuberculosis* and *Mycobacterium abscessus***

*Presenting author:* Alexandria A. Oviatt, Michigan State University

Correspondence: [oviatta1@msu.edu](mailto:oviatta1@msu.edu)

## Poster presentation

### Faculty

#### (1) **Investigating the Prion-Like Domain of the Budding Yeast Ty1 Retrotransposon**

*Presenting author:* Sean L. Beckwith, Hope College

Correspondence: [beckwith@hope.edu](mailto:beckwith@hope.edu)

#### (2) **Characterizing an N4-like phage that infects *Caulobacter crescentus***

*Presenting author:* Maeve McLaughlin, University of Michigan-Flint

Correspondence: [maevemcl@umich.edu](mailto:maevemcl@umich.edu)