

# American Society of Microbiology

Rocky Mountain Branch

## Spring 2022 Meeting

Laramie, Wyoming

Business School Auditorium (lower floor)

Corner of E. Iverson and S. 15<sup>th</sup> street



Saturday, April 30, 2022

8:00 Registration opens, poster set up, coffee

9:00 Opening and Welcome to the Rocky Mountain Branch meeting of the American Society for Microbiology, Brad Borlee, RMB-ASM President (CSU)

9:10 Welcome to the University of Wyoming, Grant Bowman

9:15 am

Keynote Lecture

**Dr. Elizabeth Case, Ph.D.** (University of Wyoming)

**“Primary Murine Macrophages as a Tool for Virulence Factor Discovery in *Coxiella burnetii*, the agent of Q fever”**

- 10:00 Chris MacGlover (Graduate Student, University of Wyoming) “Implementing diagnostic tools for strain typing bacteria associated with respiratory disease in bighorn sheep”
- 10:15 Abigail Fennell (Undergraduate Student, Colorado State University) “Microbiome of *Culicoides sonorensis*”
- 10:30 **Coffee Break / Poster Session A**
- 11:30 Sai Kit Ng (Undergraduate Student, University of Wyoming) “Understanding the role of iron in nutritional immunity during *Toxoplasma gondii* infection”
- 11:45 Stephen Denton (Graduate Student, University of Wyoming) “Theft of Host Iron-Regulatory Proteins by Parasite *Toxoplasma gondii*”
- 12:00 Gannon Kehe (University of Colorado Anschutz Medical Campus) “Eradication of Streptococci and Oral Biofilm Removal through Photoresponsive Acrylated HydroxyAzobenzene (AHA) Coatings”
- 12:15 Alex Muremi (University of Wyoming) “Do Produce-Associated Biofilms Matter in Listeriosis Outbreaks?”
- 12:30 **Lunch / Business Meeting**
- 1:30 Alexandria Williams (Undergraduate Student, University of Wyoming) “Ethylene Synthesis By Genetically Modified *Rhodococcus opacus* PD630 on Synthetic Human Urine”
- 1:45 Nicholas Zawadzki (University of Colorado Anschutz Medical Campus) “Cell-Penetrating Nanogels Loaded with Antibiotic Reduces Uropathogenic *E. coli* Infection and Strengthen Urothelial Cell Survival”

- 2:00 Tathagato Roy (Graduate Student, University of Wyoming) “Sexual dimorphism in CD4+ T cell regulating innate immunity to acute *Toxoplasma gondii* infection.”
- 2:15 Stephanie Servetas (National Institute of Standards and Technology) “Tools for Reproducible and Comparable Microbiome Research”
- 2:30 **Coffee Break / Poster Session B**
- 3:30 Jack Govaerts (Undergraduate Student, University of Wyoming) “Strain Between Strains: Antagonism and Compatibility in *Myxobacteria* Development”
- 3:45 Kalpna Subedi (Graduate Student, University of Wyoming) “Cell-cell transfer of an adaptation phenotype benefits kin and actor”

4:00 pm  
ASM Distinguished Lecturer  
**Dr. Steve Diggle** (Georgia Institute of Technology)  
“Understanding Interactions in Microbial Populations”

5:00 AWARD Ceremony and closing remarks

**Poster Sessions:**

**Directions:** Presenters are encouraged to stand by their posters for both sessions, but particularly the session (A or B) to which you are assigned. **Avoid crowding.** You are encouraged not to hang too many A or B session posters in a cluster.

Board #	Name	Institution/University	Student Status	Title of Presentation
A1	Paige Fortunati	Colorado State University	Undergraduate Student	Exploring the feeding ecology within the gastrointestinal tracts of red fox ( <i>Vulpes vulpes</i> ) from Alaska
A2	Ellery Sherman	Colorado State University	Undergraduate Student	Piloting the Isolation of Genomic DNA from Helminth Eggs
A3	Emily Bradford	Colorado State University	Undergraduate Student	To Clear or Not To Clear a Nematode
A4	Noah Schindler, Michael Burke, and Callie Earles	Metropolitan State University of Denver	Undergraduate Student	Novel Yeast Isolation and Characterization from a Honeybee Habitat For Use in Brewing of Beer
A5	Giang Pham and Kiet Tran	University of Wyoming	Graduate Student	Engineering listerial bactodrone for cancer immunotherapy
A6	Aniket Sharma	University of Wyoming	Graduate Student	Maple syrup for prevention of Listeria based biofilms
A7	Justus Nelson	University of Wyoming	Undergraduate Student	Inducing Interferons to fight Cancer using Engineered Listerial Drones
A8	Oliver Trunschke and Caleb Price	University of Wyoming	Graduate Student	Bioengineering of Light activated Proteins

A9	Riley Anderson	Colorado State University	Undergraduate Student	The Role of <i>Planococcus</i> Biosurfactant Production in the Inhibition of Biofilm Formation
A10	Charles Unseld and Alena Kelleher	Metropolitan State University of Denver	Undergraduate Student	DNA Extraction of Microbial Communities Within Concrete
B11	Lindsay Nevarez and Alexa Mejia	University of Wyoming	Undergraduate Student	Sequestration of Host Transferrin Receptor by <i>T. gondii</i> is Life-Stage Specific
B12	Theresa Zimmer	Microbial Domains, LLC	Not applicable	Hard Kombucha SCOBY Analysis
B13	Jenna Vickery	University of Colorado Anschutz Medical Campus	Graduate Student	Role of Synaptopodin in <i>Shigella</i> Pathogenesis
B14	Madison Davis	University of Wyoming	Undergraduate Student	Confirming the role of CBU1261 in <i>Coxiella</i> Pathogenesis
B15	Kaatje Fisk	University of Wyoming	Undergraduate Student	Sexual Dimorphism in Immunity to Acute Toxoplasmosis
B16	Gabriell Papp	Colorado State University	Undergraduate Student	Optimization and Initial Characterization of the Reptile Microbiome
B17	Matthew Hanley	University of Wyoming	Undergraduate Student	Cultivation of <i>Cutibacterium acnes</i> : Minimal Essential Media Supports Growth; Addition of Pores and Sebum-like Compounds Failed to Enhance Growth
B18	Collin Coon and Eamon McHugh	United States Air Force Academy	Graduate Student	Per- and Polyfluorinated Alkyl Substances alter fungal morphologies in <i>Penicillium sp.</i> and <i>Fusarium sp.</i>
B19	Shelby Cagle	Colorado State University	Graduate Student	Investigations on the effect of temperature on the vertical and transstadial transmission rates of Rift valley fever virus in <i>Culex tarsalis</i> and <i>Aedes aegypti</i> mosquitoes
B20	Sarah Zekovich	University of Wyoming	Undergraduate Student	Cyanobacterial Blooms in Wyoming: Microcystin Concentration is Correlated With Water Chemistry, No Correlation With <i>mcyE</i> Gene Count

## Meeting Location and Directions:



The meeting is located on the **lower floor** of the University of Wyoming College of Business Auditorium on the corner of Iverson Ave and 15<sup>th</sup> St.

Registration and check-in runs from 7:45 to 8:45 AM.

Address: 1401-1499 E Iverson Ave, Laramie, WY 82070.

**Parking** is free in A or C zones where indicated, and street parking is also available.