



2023 Summer Undergraduate Research Program Scholars' Final Presentations
Friday, July 28, 9:00 a.m., Microbial Sciences Room 6201

Free Zoom webinar: Register on-line:

<https://uwmadison.zoom.us/meeting/register/tJ0lceioqj4qGNQ0l0N78NgHnLZRN4w8zvJ>

- 9:00 – 9:15:** Transformation of *Bacillus subtilis* with DNA obtained from natural donor cell lysis to understand inherent mechanisms of beta-lactam resistance in *Listeria*.
Pablo De Avila. Faculty mentors: Tu Anh Huynh and Briana Burton.
- 9:15 – 9:30:** Investigating whether *Entamoeba muris* antigenic variation offers better survival within the host gut microbiome.
Jasmine Hughes. Faculty mentor: Laura Knoll.
- 9:30 – 9:45:** Investigating Mechanisms of DMSO Reductase Regulation in *Salmonella enterica*.
Analea Scott. Faculty mentor: Johanna Elfenbein.
- 9:45 – 10:00:** Thermal Inactivation of Salmonella in Plant-Based Cheese.
Calvin Slaughter. Faculty mentor: Kristin Schill.
- 10:00 – 10:15:** Investigating current sanitation practices in multi-species processing facilities and their ability to prevent the spread of microorganisms.
Lauren Sroda. Faculty mentor: Vanessa Leone.
Student stipend sponsored by Johnsonville.
- 10:15 – 10:30: Break**
- 10:30 – 10:45:** Application of an antimicrobial from *Aspergillus oryzae* to inhibit foodborne pathogens and spoilage fungi in select dairy products. Erika Nielson. Faculty mentor: Jae-Hyuk Yu.
Student stipend sponsored by Dairy Farmers of Wisconsin.
- 10:45 – 11:00:** Investigating whether coffee extracts inhibit *Clostridium botulinum* growth in coffee.
Jakob Gryniewski. Faculty mentor: Kristin Schill.
- 11:00 – 11:15:** Evaluation of the antimicrobial activity of *C. Arabica* at different coffee bean roast levels and identification of inhibitory compounds against *Clostridium botulinum* in hot brew coffee extracts.
Juliana Obayashi. Faculty mentor: Brad Bolling.
- 11:15 – 11:30:** Investigating the potential of *Hanseniaspora* as a biocontrol for the apple pathogen *Penicillium expansum*.
Martijn den Boone. Faculty mentor: Nancy Keller.
- 11:30 - 11:45:** Investigating the behavior of *Staphylococcus aureus* and *Bacillus cereus* in manufactured dough products prior to baking.
Daniluz Schueller. Faculty mentor: Charles Kaspar.