



2021 Summer Undergraduate Research Program Scholars' Final Presentations

Tuesday, July 27, 9:00 a.m.

Room 1520 Microbial Sciences.

GoToWebinar Link: <https://attendee.gotowebinar.com/register/6376540036314129424>

- 9:00 – 9:15:** **The stress response of *Listeria monocytogenes* and its symbiotic relationship with *Aspergillus westerdijkiae*.**
Zhenyu Liu. Faculty mentor: Nancy Keller.
- 9:15 – 9:30:** **Investigation of intestinal epithelium D6D knockout mice as a suitable environment for *Toxoplasma gondii* to undergo its sexual reproduction and life cycle.**
Martin Kelty. Faculty mentor: Laura Knoll.
- 9:30 – 9:45:** **Investigating host interactions of *Entamoeba histolytica* in vitro and examining *Entamoeba muris* as a model organism.**
Jenna Ridler. Faculty mentor: Laura Knoll.
- 9:45 – 10:00:** **Investigation of *Bacillus subtilis* as a model for *Listeria monocytogenes* cyclic-di-AMP activity.**
Shea Prouty. Faculty mentor: Tu Anh Huyhn.
- 10:00 – 10:15:** **Genomic analysis, diversity and physiologic characteristics of *C. botulinum* Group I and Group II strains frequently used in food challenge studies.**
Brooke Bowe. Faculty mentor: Sabine Pellet.
- 10:15 – 10:30:** **Use of a genome-wide association study (GWAS) to further understanding of host genetics and their role in dairy cow rumen microbial composition.**
Andrew Scheftgen. Faculty mentor: Garret Suen.
- 10:30 – 10:45:** **Creation of an improved model for early detection of digital dermatitis in beef cattle in feedlots.**
Allie Hoerth. Faculty mentor: Doerte Dopfer.
- 10:45 – 11:00:** **Differences between the bile-salt-resistant and bile-salt-susceptible strains of *Escherichia coli* and resulting acid tolerance, bile salt resistance, and novobiocin susceptibility.**
Milan Stolpman. Faculty mentor: Chuck Kaspar.
- 11:00– 11:15:** **Fungicides used in agricultural settings and their impact on antibiotic resistance in environmental bacteria.**
Grayson Vanlue. Faculty mentor: Jeri Barak.
- 11:15– 11:30:** **Ensuring the Lethality of Salmonella on Pork Patty Surfaces During Impingement Cooking.**
Persephone Valentine. Faculty mentor: Andy Milkowski.
- 11:30– 11:45:** **Assessing clean label ingredients in dairy products, their derivation and potential manipulation.**
Suraj Chetty. Faculty mentor: Jae-Hyuk Yu.