

Student Research Symposium Goes Virtual

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10/12/2020

Students and faculty participated in the Department of Animal, Dairy and Veterinary Sciences Student Research Symposium at the close of the summer. This annual event gives students experience in presenting their research from summer projects, other recent projects or ongoing research. It also provides a positive environment to receive constructive criticism and feedback from the faculty judges. This year marked the first time that the symposium was held virtually.

The event has typically included oral presentations, poster presentations and flash talks, which are brief oral presentations paired with poster presentations. To allow for a virtual event, this year's symposium included two types of presentations: oral presentations and mini presentations.

The oral presentations occurred much as you would imagine. Individual presenters gave their presentations to members of the symposium organizing committee in a large lecture hall to allow social distancing. The presentations were broadcast live via Zoom, allowing judges and other participants to watch remotely and join the question and answer period at the end.

The symposium's mini presentation format was developed specifically for the circumstances. Presenters pre-recorded their 5-minute talks and submitted it in advance. Videos of each presentation were uploaded to a discussion board in Canvas, allowing for discussion between students and judges about each presentation.

Sarah Andersen received first place in the graduate student mini presentation category for her research on a ground skill evaluation rubric used to evaluate horses for use in equine assisted interventions. Her thesis research will analyze this rubric for reliability and validity. Giving a mini presentation in this format was a different but good experience for her. Andersen said, "It was nice to be able to record the presentation beforehand and then just focus on watching others' videos and answering questions."

Andersen received her bachelor's degree in animal, dairy and veterinary sciences with an emphasis in equine science and management and is now working on a master's degree in agricultural extension and education. She is also the equine manager for the USU Equine Experience and a certified therapeutic riding instructor for PATH International. "I want to work on research focused on equine welfare in the field of equine assisted interventions," Andersen said of her career goals. "I hope to be a professor at a university one day to pass on the knowledge I have gained as well as to perform research."

Results of the event are as follow:

Undergraduate Mini Presentation:

- 1st place (tied):
 - Lillian Okamoto, "Examining the effects of estradiol, trenbolone acetate, or polyamines on bovine satellite cell differentiation"
 - Sierra Lopez, "Effects of dietary omega-3 fatty acids on factors of inflammation and growth in piglets"
- 2nd place: Andre Tu Nguyen, "Identification and characterization of PD-L1 in bovine placentas"
- 3rd place: Porter Green, "Overview of the underlying molecular mechanisms of inflammation leading to colorectal cancer and shifts in microbiome."

MS Mini Presentation:

- 1st place: Sarah Andersen, "Development and validation of an evaluation rubric for equine assisted interventions"
- 2nd place: Anthony Alberto, "Impact of Fish Oil on Animal Performance and Intestinal Permeability in Swine"
- 3rd place: Braden Abercrombie, "DNA methylation profiles of developmentally important genes in Bovine SCNT and IVF embryos"

Ph.D. and DVM Mini Presentation:

- 1st place: Laura Smith, "Effects of feeding a novel alfalfa leaf pellet (ProLEAF MAX™) and an alfalfa stem byproduct (ProFiber Plus™) on growth and conception rates of developing dairy heifers"
- 2nd place: Naghme Bagheri, "Maternal Methionine Supply During Late Gestation Alters the mTOR Pathway in Ovine Placenta"

- 3rd place: McKenna Walters, “Young germ cell depleted ovaries in post-reproductive mice and its effect on immune function”

Undergraduate and MS Oral Presentation:

- 1st place: Sawyer Fannesbeck, “Influence of cattle breed and forage type on organic dairy heifer performance”
- 2nd place: Morgan Eggleston, “Cache Valley PM2.5 activates the unfolded protein response in human lung cells”
- 3rd place: Madi Lindsey, “Using cytoplasmic biopsies to determine bovine oocyte quality”

Ph.D. and DVM Oral Presentation: (this category had four students so only first and second place were awarded)

- 1st place: Mike Clayton, “Characterization and comparison of subacute dehydropyrrolizidine alkaloid toxicosis in C57BL mice gavaged with riddelline, senecionine, seneciphylline or lasiocarpine”
- 2nd place: Caleb Reichhardt, “Comparing the effectiveness of anabolic implants in Santa Gertrudis sired steers versus Angus steers”

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