



## Dr. Robert M. Melampy Grant

<u>2021-22</u> <u>2020-21</u> <u>2019-20</u>

## <u>2021-22</u>

### **Rebecca Burns**

Rebecca Burns has been involved with the Honors Program since her freshman year at lowa State. Her interest in undergraduate research began when she had the opportunity to participate in the First-Year Honors Mentor Program. She assisted in a study using a group of antibiotic-resistant bacteria called ESKAPE pathogens under the mentorship of Dr. Bryan Bellaire and Nathan Peroutka-Bigus in the Veterinary Microbiology department.

In Spring 2021, Rebecca began conducting undergraduate research in Dairy Cattle Nutrition under the mentorship of Dr. Ranga Appuhamy. Her projects with Dr. Appuhamy have included studying the effect of zinc on anabolic signals in bovine mammary epithelial cells and her current Capstone project, where she is evaluating the role of energy substrate availability on the intestinal epithelial integrity of newborn calves. The findings of this study will help develop nutritional strategies to improve the gut and general health of young calves while replacing antibiotic use.r

### **Shelby Nechkash**

Shelby Nechkash is a sophomore in animal science with a minor in sustainability from Highland, Wisconsin. She is a member of the Collegiate Chapter of Pheasants Forever and Ames Area Collegiate Hunting Club and looks forward to becoming a CALS Ambassador and part of the Animal Science Peer Mentor Program.

Shelby began doing research with Associate Professor of Agricultural and Biosystems Engineering Kurt Rosentrater as part of the First-Year Honors Mentor Program. Her initial project compiled and summarized environmental impact data for various packaging materials, including those used for pet food. She quickly gained an interest in research on sustainability. Her current project analyzes the environmental impacts of the production and use of DDGS (Distillers Dried Grains with Solubles) and other ethanol coproducts in animal feeds. Specifically, she is looking at the physical and chemical differences of distiller's grains between companies and manufacturing processes to determine if there are significant differences in quality or composition that would affect their use in animal feeds.

# IOWA STATE UNIVERSITY Honors Program

## <u>2020-21</u>

### **Emily Gress**

Emily is a first-year student in biology with a minor in animal science from Bennington, Nebraska. She is a member of the President's Leadership Class, Running Club, and Best Buddies and also works as an Academic Success Center Tutor. She is looking forward to teaching a First-Year Honors Program 121 Seminar next fall. Emily's interest in veterinary medicine and research with both human and animal health applications led her to work with Dr. Josh Selsby. Her project for the First-Year Mentor Program is a parabiosis experiment investigating the effect of transfused heat stressed serum to thermoneutral recipients in swine.

### <u>2019-20</u>

### Gabby DiRusso

Gabby DiRusso was a senior in Animal Science from Middletown, Delaware. She was involved in several campus organizations, including the College of Agriculture and Life Sciences Ambassadors, Block & Bridle Club, and Intercollegiate Meat Judging Team. Throughout her time at Iowa State Gabby was involved with research focused on beef cattle both at the College of Veterinary Medicine and the Hansen Ruminant Nutrition Lab. She completed her Honors capstone project under Dr. Stephanie Hansen, looking at the relationship between feeding behavior and the occurrence of liver abscesses in feedlot cattle.