Student Presents Findings on Utah’s Capitol Hill for Reducing Risks of Colorectal Cancer

Bronson Teichert

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Utah State University student researcher Michaela Brubaker was among the 26 USU students selected to present their research in Salt Lake City for Research on Capitol Hill. Brubaker’s work involves the Western Diet and dietary interventions to reduce the risk of colorectal cancer in humans. She is studying animal, dairy and veterinary sciences with an emphasis in bio veterinary sciences, and minors in biology and chemistry.

Brubaker’s hypothesis was that strains of lactobacillus acidophilus and Bifidobacterium lactis (essential bacterium found in humans to aid the digestive process) will thrive in the presence of agave, green banana, black raspberry, pomegranate peel, or baobab fruit whole food powders after a fermentation process.

According to Brubaker’s abstract, the data suggest that agave, black raspberry and baobab fruit powder were more likely to decrease the risk for colorectal cancers. Green banana and pomegranate peel powder were less likely to improve digestive health or prevent colorectal cancer.

One might ask why a student pursuing a degree in animal, dairy and veterinary sciences is researching human health. Brubaker said she has always had an interest in health and nutrition for humans and animals.

“As I prepare to pursue a career in veterinary medicine, it is fascinating to see the intersection between animal science and human health,” Brubaker said. “My current project is an independent extension of the colorectal cancer research I have been involved with for the last three years.”

Brubaker said that one of the most rewarding parts of her research is seeing her own project through from start to finish and learning how to overcome roadblocks during the research process.

“Through this experience I have been able to directly apply the knowledge and skills I have learned throughout my time at Utah State,” Brubaker said. “In the end, seeing the results of the project and knowing that they will have impacts on future colorectal cancer research has made all of the hard work worthwhile.”

Abby Benninghoff, associate dean for research in USU’s College of Agriculture and Applied Sciences, has worked with Brubaker for three years.

“I have met one-on-one with Michaela about her research and professional interests, and worked on developing her honors project and applications for an URCO (Undergraduate Research and Creative Opportunities) grant. We have worked together to analyze some new data from her projects and I’m quite excited about what she has accomplished with her study,” Benninghoff said. “I think her new data will be valuable for my research group moving forward.”