

SBU STUDENT EARNS TOP SCIENTIFIC PRESENTATION AWARD

BOLIVAR, Mo. — Six Southwest Baptist University [biology majors](#) presented research at the Sigma Zeta National Convention, with Nicholas Schulte bringing home the Top Scientific Presentation Award for 2021.



Sigma Zeta is a national science and mathematics honor society. The society funded 17 research projects for 2020-21 nationwide through a competitive process, with six of the projects awarded to SBU students.

[Dr. John Murphy](#), associate professor of biology, has mentored the students, using his farm as their research laboratory.

"It has been so fun to watch these students learn and grow through this research process," Murphy said. "Two years ago, we started the research lab with three students learning techniques for venipuncture, serum isolation and ELISA measurements. This year, those same students were mentoring and training the new lab recruits and received funding from a national organization. I am incredibly proud of each one and am excited to watch their bright futures!"

The students spent more than 400 hours during the fall of 2020 collecting samples, extracting the hormone cortisol and isolating immunoglobulins from blood serum. They presented their research at the Sigma Zeta Convention during spring break in March and have been

invited to present their research at the Missouri Cattlemen's Association's Hickory County meeting on May 13.

"Each student was commended on their project and presentation," Murphy said. "As well as presenting, each student also was published in the Sigma Zeta abstracts journal. I am so proud of these students and their hard work."

The research projects are:

- **Ashleigh DeWees**, a senior biology major with a concentration in biomedical science from Rowlett, Texas — "Cortisol Research for Southwest Baptist University"
- **Caitlin Diepenbrock**, a senior biology major with a concentration in biomedical science from Deltona, Fla. — "Cortisol Release During Weaning and its Effects on Physical Behavior"
- **Nicholas Schulte**, a junior biology major with a concentration in biomedical science from Junction City, Kan. — "Immune System Response to Vaccinations and Stress in Weaning Beef Calves"
- **Haley Stoner**, a senior [medical technology major](#) from Nixa — "The Impact of Cortisol on Killed Vaccine Effectiveness in Bovine"
- **Kailey Weiskopf**, a junior [biochemistry major](#) from St. Louis — "Free Cortisol Levels in Saliva Samples vs. Total Cortisol Levels in Blood Serum Samples"
- **Megan Worthington**, a senior biochemistry major from Camdenton — "Analysis of cortisol and IGg levels in Calves"

Students also are conducting further research this spring looking at the impact of weaning on immune system response to vaccination against Bovine Respiratory Disease. Murphy is working with 13 students in the research lab on proposals for next fall.

PHOTO: Nicholas Schulte, junior biology major with a concentration in biomedical science from Junction City, Kan., earned the Top Scientific Presentation Award for 2021 at the Sigma Zeta National Convention.

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