



High School Senior Proves Exposure to Horses Reduces Stress

MAF Honors Three Students at Science Fair

By Heather Grimshaw

For high school senior Katlin Jayne Hornig (on left in photo), solving medical mysteries became a passion after she watched physicians ferret out a rare type of cancer in a family member.

“Science has always held great interest for me,” says the 18-year-old Colorado student, who conducted an award-winning science project that assessed how horses have calming effects on people. “I like to say my two passions are science and horses.”



Hornig, who was pre-accepted to the veterinary medical college at Colorado State University and will start her undergraduate degree there this fall, was one of three Colorado high school students to win awards from [Morris Animal Foundation](#) (MAF) for projects presented at the Colorado State Science and Engineering Fair.

It is the first year MAF has given awards to high school researchers, and the organization plans to expand the high school program outside Colorado in the near future, says Allen Byrne (on right in above photo), coordinator for MAF’s [Veterinary Student Scholars](#) (VSS) program, which funds veterinary students’ research initiatives and encourages them to pursue careers in animal health research. The high school awards and VSS program exemplify MAF’s commitment to addressing the national shortage of veterinary professionals. Though many organizations recognize the shortfall, few have proposed solutions.

“It is very exciting to see high school students taking on projects that aim to help animals,” says Byrne, who helped judge the contest. “The sooner young people are exposed to valuable research experiences, the more likely they are to positively impact veterinary medicine.”

Mixing Horses and People Reduces Stress

Growing up on a family ranch, Hornig knew that her interactions with horses relaxed her, so she set out to see if that experience was the exception or the rule. Over a seven-month period, Hornig discovered that 80 percent of the project participants experienced lower levels of stress and anxiety, both mentally and physically.

Three 30-minute therapy sessions enabled Hornig to take temperatures and measure pulse and respiration rates in horses. She also measured blood pressure and pulse rates in people and evaluate their stress-related questionnaires.

The experiment led the Alamosa Police Department in Colorado to integrate horses into stress management and therapeutic treatment programs. Hornig hopes her discovery will provide a new role for these animals and help offset the number of unwanted horses in the country.

Colorado students Kelsey Martin (on right in photo) and Brandy Haller (on left in photo) also won awards for their collaborative in vitro study that tested a new approach to treating canine osteosarcoma, a deadly, painful bone cancer affecting dogs. After a six-month trial, Martin and Haller found that applying drugs used to treat bone loss and lower cholesterol in people delayed tumor cell growth and proliferation in dogs.



“If researchers could develop an injection or oral dose based on our study, it would be a great step for finding more reliable cures and treatments that would help eliminate pain and stress for the dog,” says Martin, whose experience stoked her interest in veterinary research.

MAF Encourages Research Careers

From encouraging high school students to pursue careers in veterinary medicine to providing professional fellowships, MAF completes the veterinary career circle and widens the scope for possible achievement.

“When it comes to providing innovative ways to improve the health and wellness of animals, the sky is the limit,” says Patricia Olson, DVM, PhD, MAF president and CEO. “We take great pride in our ability to foster a love of science in ambitious young people and to support the efforts of established veterinary professionals who seek additional schooling and experience.”

We applaud the ambition and curiosity of these award-winning high school students. And with your help, MAF will continue to lead the way toward new health frontiers.

You Can Help: Help support future scientists by [making a donation](#) to MAF.