

Foundation supporting pertinent studies by promising young researchers

The Foundation for the Horse has awarded \$95,630 for five exceptional equine research projects being investigated by graduate students, residents or postdoctoral fellows. This marks the second consecutive year in which The Foundation has provided nearly \$100,000 for impactful equine research by up-and-coming investigators.

“The Foundation’s investment in emerging equine scientists is imperative if we are to see continued improvements in patient management and outcome,” said Dr. Anthony Blikslager, chair of the Research Subcommittee. “These newly funded projects have the potential to improve mare fertility and offer new treatment recommendations for horses suffering from colic, arthritis, joint disease and bone bruising.”

The supported research projects with brief descriptions are:

Evaluation of plasma and peritoneal cell-free (cf) DNA as potential biomarkers in equine colic



Dr. Rosemary Bayless, North Carolina State University

Assessing the potential of cell-free DNA, shown to be elevated in critically ill humans and dogs as a tool to assist veterinarians with prognosis and treatment recommendations for colic patients, which could support clients’ informed decision-making and ultimately improve outcome.

Effect of mare obesity on L-carnitine in the ovarian follicle and potential to correct by dietary supplementation



Dr. Giovana di Donato Catandi, Colorado State University

Determining if an insufficiency of L-carnitine, which helps in the transport of fatty acids and cellular metabolism, occurs in the follicles of obese mares and if dietary supplementation will improve cellular metabolic activity and potentially improve fertility.

The temporal course of the cytokine, immune and transcriptomic response in osteoarthritis



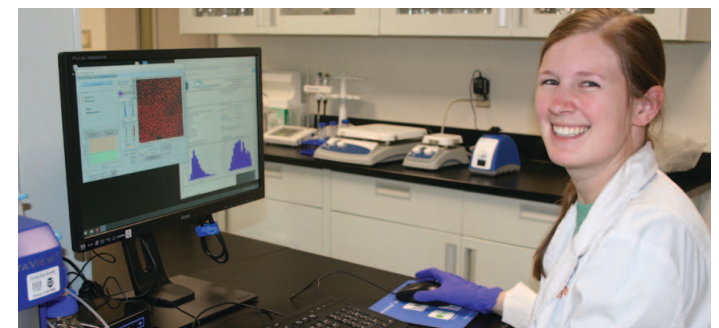
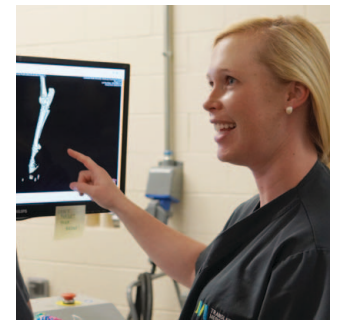
Dr. Lynn Pezzanite, Colorado State University

Understanding how osteoarthritis changes the immune system and the genetic code of the cells in the joint when osteoarthritis is induced and then progresses will help researchers develop appropriate targeted therapies depending on the stage of osteoarthritis (early, mid, or late).

Validation of an innovative contrast subtraction technique to detect equine bone marrow lesions using CT

Dr. Holly Stewart, Colorado State University

Validating the use of a subtraction technique with CT for detection of bone marrow lesions within the equine distal limb will improve understanding of the impact of bone marrow lesions and their relationship to degenerative joint disease, and will provide clinicians with alternative imaging methods for diagnosis and management of this condition.



Equine fetally-derived mesenchymal stem cells and their generated extracellular vesicles as a novel treatment for equine osteoarthritis

Dr. Riley Thompson, Colorado State University

Exploring whether use of extracellular vesicles produced by stem cells could be a potentially superior treatment for arthritis in equine athletes compared to the current treatment of injecting stem cells into the joint because there is less likelihood of an allergic reaction to the extracellular vesicles.

Equine research is one of three pillars of impact—along with education and benevolence—supported by The Foundation. The 2021 application window for this research grant program will open next spring. To learn more, visit <https://tinyurl.com/ffthgsrrg>.