

Grants

| INVESTIGATORS | SPONSOR | PROJECT TITLE | PERIOD | AMOUNT |
|--|---|---|-----------------|-----------|
| Erin Contino (PI), Elsbeth O'Fallon, Alicia Yocom (Co-PIs) | College Research Council – CRC | Pharmacokinetics and safety of an oral cannabidiol product in horses | 7/1/20-6/30/21 | \$24,996 |
| Felix Duerr (PI), Laurie Goodrich (Co-PI) | College Research Council – CRC | Intra-articular gene transfer of interleukin-10: Development of a new strategy for the treatment of canine osteoarthritis | 7/1/20-6/30/21 | \$23,764 |
| Kevin Haussler (PI), Mindy Story, M. Maldonado (Co-PIs) | College Research Council – CRC | Effect of chiropractic treatment on concurrent limb lameness and back pain in horses | 7/1/20-6/30/21 | \$2,000 |
| Katie Seabaugh (PI), Kirk McGilvray, Sandro Colla, Kurt Selberg (Co-PIs) | College Research Council – CRC | No foot, no horse: Biomechanical assessment of the collateral ligament of the distal interphalangeal joint of the horse | 7/1/20-6/30/21 | \$12,015 |
| Laurie Goodrich (PI), Steve Dow, Lynn Pezzanite (Co-PIs) | College Research Council – CRC | The temporal course of the cytokine, immune, and transcriptomic response in osteoarthritis | 7/1/20-6/30/21 | \$24,921 |
| Christopher Kawcak (PI), Laurie Goodrich, Lauren Smanik, Holly Stewart, Kurt Selberg (Co-PIs) | College Research Council – CRC | In vivo evaluation of a modified subchondroplasty technique for the treatment of full-thickness articular cartilage defects in the medial trochlear ridge of the femur: A pilot study in three horses | 7/1/19-6/30/20 | \$21,150 |
| Laurie Goodrich (PI), Steve Dow, Lynn Pezzanite (Co-PIs) | College Research Council – CRC | Is the commonly used intra-articular antibiotic, amikacin, toxic to the cells of the equine joint as well as MSCs? | 7/1/19-6/30/20 | \$25,000 |
| Katie Seabaugh (PI), David Frisbie, Brad Nelson, Sherry Johnson, Kurt Selberg (Co-PIs) | College Research Council – CRC | Investigation of an equine meniscal destabilization model for initiating post-traumatic osteoarthritis | 7/1/19-6/30/20 | \$24,918 |
| Brad Nelson (PI), Christopher Kawcak, Kurt Selberg, Charles Ho, (Co-PIs) | College Research Council – CRC | Innovative and emerging quantitative MRI strategies for detection of early articular cartilage injury in horses | 7/1/19-6/30/20 | \$24,950 |
| John Kisiday (PI), Laurie Goodrich (Co-PI) | College Research Council – CRC | Generation of mesenchymal stem cells from unsorted populations of adult equine chondrocytes | 7/1/19-6/30/20 | \$19,112 |
| Christopher Kawcak (PI) | TMI TAP | Development of orthopedic wearable technology | 7/1/19-6/30/20 | \$38,881 |
| Christopher Kawcak (PI) | College Research Council – CRC | Racing CRC post-mortem | 7/1/19-6/30/20 | \$15,000 |
| Valerie Moorman(PI), Dean Hendrickson, Gregg Griffenhagen, Lynn Pezzanite (Co-PIs) | College Research Council – CRC | The use of liposomal bupivacaine for equine distal limb pain: an innovative approach to improve postoperative and chronic pain management in horses | 7/1/18-9/30/19 | \$25,000 |
| Erin Contino (PI), Christopher Kawcak, Gustavo Zantotto, David Frisbie (Co-PIs) | College Research Council – CRC | Feasibility and safety of radiofrequency nerve ablation of the deep branch of the lateral plantar nerve in horses | 7/1/18-9/30/19 | \$18,951 |
| Christopher Kawcak (PI) | College Research Council – CRC | Racing CRC post-mortem | 7/1/18-9/30/19 | \$15,000 |
| Felix Duerr (PI), Laurie Goodrich (Co-PI) | Morris Animal Foundation | Intra-articular gene transfer canine osteoarthritis | 10/1/20-9/30/22 | \$50,000 |
| David Frisbie (PI), Katie Sikes, Katie Ellis (Co-PIs) | American Quarter Horse Association | Metabolomic profiles of tendons and ligaments in equine patients | 10/1/19-9/30/20 | \$19,855 |
| David Frisbie (PI), Gustavo Zantotto, Ray Goodrich, Jon Dickens (Co-PIs) | TMI TAP | Freeze-dried conditioned serum for the treatment of osteoarthritis | 7/1/19-6/30/20 | \$45,000 |
| David Frisbie (PI) | TMI TAP | Creation and validation of a one-step closed system vessel for condition serum production | 7/1/20-6/30/21 | \$44,000 |
| David Frisbie (PI), Myra Barrett, Katie Seabaugh (Co-PIs) | Smith and Nephew Inc. | Evaluation of minced cartilage as a method for healing cartilage defects | 11/1/18-6/30/20 | \$359,755 |
| Laurie Goodrich (PI), Steve Dow (Co-PI), C. Wayne McIlwraith, Tom Schaer, Valerie Johnson, Lynn Pezzanite, Nikki Phillips (Co-PIs), Lauren Schnabel (Consultant) | Grayson-Jockey Club Research Foundation | Antimicrobial properties of equine mesenchymal stem cells: An approach to cure septic arthritis | 5/1/19-4/30/21 | \$198,056 |
| Laurie Goodrich (PI), Christopher Kawcak, Myra Barrett, Katie Seabaugh, David Frisbie, C. Wayne McIlwraith, Benjamin Cooper, Brian Snyder, Mark Grinstaff (Co-PIs) | Boston University | Polyacrylate gel to treat equine OA in an osteochondral chip fragment model | 1/1/18-9/14/18 | \$251,399 |

FUNDING

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|--|---|--|-------------------|-----------|
| Laurie Goodrich (PI), David Frisbie, Myra Barrett, Christopher Kawcak, C. Wayne McIlwraith, Jude Sanulski, Constance Chu (Co-PIs) | Stanford University, U.S. Department of Defense | Localized gene therapy for prolonged anti-inflammatory treatment to prevent or delay PTOA in an equine model | 1/15/20-8/31/22 | \$952,862 |
| Lynn Pezzanite (PI), Laurie Goodrich (Mentor), Steve Dow (Co-PI) | The Foundation for The Horse | The temporal course of the cytokine, immune, and transcriptomic response in osteoarthritis progression | 11/1/20-10/31/21 | \$19,660 |
| Laurie Goodrich (PI), Christopher Kawcak, Myra Barrett, Katie Seabaugh, David Frisbie, C. Wayne McIlwraith, Benjamin Cooper, Brian Snyder, Mark Grinstaff (Co-PIs) | Articulate Biosciences | Polyacrylate gel to treat equine OA in an osteochondral chip fragment model – amendment | 1/1/18-9/14/18 | \$121,685 |
| Laurie Goodrich (PI), David Frisbie, Myra Barrett, Christopher Kawcak, C. Wayne McIlwraith, Jude Sanulski, Constance Chu (Co-PIs) | Stanford University, U.S. Department of Defense | Development of diagnostic and treatment strategies for post-traumatic osteoarthritis | 9/1/18-8/31/21 | \$711,101 |
| Laurie Goodrich (PI), Jeremiah Easley (Co-PI) | Cayman Biomedical Research Institute | Evaluation of the use of small novel compounds KMN 159 and KMN 224, as osteogenic inducers in horse and sheep cultures | 11/16/20-11/15/21 | \$75,000 |
| Lynn Pezzanite (PI), Laurie Goodrich (Mentor), Steve Dow (Co-PI) | ACVS Foundation (American College of Veterinary Surgeons) | Investigation of equine MSCs antimicrobial properties | 8/1/18-8/1/19 | \$24,463 |
| Lynn Pezzanite (PI), Laurie Goodrich (Mentor), Steve Dow (Co-PI) | Grayson-Jockey Club Research Foundation | Antimicrobial and immunomodulatory properties of TLR ligand activated mesenchymal stem cells | 4/1/19-3/31/20 | \$15,000 |
| Laurie Goodrich (PI), Lauren Smanik, Kurt Selberg, Christopher Kawcak (Co-PIs) | American College of Veterinary Surgeons | Computed tomography versus radiographs guidance for internal fixation of central tarsal bone fractures in non-racing horses | 6/1/21-5/30/22 | \$15,000 |
| Kevin Haussler (PI), Melissa King, Mindy Story (Co-PIs) | INDIBA | Evaluation of diathermy for the treatment of neck pain and stiffness in horses | 7/1/19-7/31/21 | \$25,000 |
| Christopher Kawcak (PI), Brad Nelson, Holly Stewart, Kelly Zersen, Kurt Selberg (Co-PIs) | The Foundation for The Horse | Validation of an innovative contrast subtraction technique to detect equine bone marrow lesions using CT | 10/1/20-9/30/21 | \$19,980 |
| Christopher Kawcak (PI), Holly Stewart (Co-PI) | Grayson-Jockey Club Research Foundation | Optimization of dual-energy CT for equine imaging | 4/1/19-3/31/20 | \$15,000 |
| Christopher Kawcak (PI), Holly Stewart, C. Wayne McIlwraith, Kurt Selberg (Co-PIs) | Grayson-Jockey Club Research Foundation | Development of limited view 3D imaging for the equine distal limb | 4/1/18-3/31/20 | \$198,836 |
| Melissa King (PI), David Frisbie (Co-PI) | Bemer USA LLC | Influence of bemer blanket technology on pain measures, biomechanics, and serum biomarkers in horses with back pain | 2/1/19-1/31/20 | \$73,821 |
| Sherry Johnson (PI), Melissa King (Co-PI) | Grayson-Jockey Club Research Foundation – Storm Cat Award | Validation of exercise with blood flow restriction for enhanced muscular development | 4/1/20-3/31/21 | \$15,000 |
| John Kisiday (PI) | American Kennel Club Canine Health Foundation Inc. | Characterizations of mesenchymal stromal cell properties of canine culture-expanded articular chondrocytes | 3/1/21-2/28/22 | \$14,973 |
| Sherry Johnson (PI) | TMI TAP | Sense validation for equine blood flow restriction | 7/1/20-6/30/21 | \$20,000 |
| Sherry Johnson (PI), Melissa King, David Frisbie, Christopher Kawcak, Adam Chicco, Katie Sikes (Co-PIs) | TMI TAP | Musculoskeletal effects of equine blood flow restriction training: A translational investigation | 7/1/19-6/30/20 | \$80,000 |
| C. Wayne McIlwraith (PI), Christopher Kawcak, Frances Peat, David Frisbie, Kurt Selberg (Co-PIs) | Grayson-Jockey Club Research Foundation | Thoroughbred sales radiology-ultrasonography study | 4/1/18-3/31/20 | \$143,624 |
| Brad Nelson (PI), Ben Gadomski, Christopher Kawcak, Kirk McGilvray, Tom O'Brien (Co-PIs) | American College of Veterinary Surgeons | Comparison of the osteocentric bone screw fastener to the AO buttress screw in an ex vivo model of equine midbody proximal sesamoid bone fracture repair | 5/1/21-5/1/22 | \$14,811 |