

MISCELLANEOUS (OTHER)



Grayson-Jockey Club Research Archives

Pharmacology, radiology, and DNA mapping are just a few of the many types of research studies that would fall into this category.

Grayson is proud to have funded the following projects:

Validation of Biomarkers for Equine Neurodegeneration

University of California- Davis, Principal Investigator: Carrie Finno

Co-PIs: Sharmila Ghosh, Amy Johnson- UN of Penn,

Steve M. Reed, Rood and Riddle Equine Hospital

A study to improve the diagnosis of spinal cord disease in horses.

Years: 2023-2024 TOTAL \$97,365

Fentanyl Matrix Patches In Horses

University of Georgia, Principal Investigator: Rachel Reed

CO-PIs: Londa Berghaus, Heather Knych (UC- Davis)

The aim is to show that fentanyl administered via patches placed on the skin is well absorbed and represents a promising means of providing clinically relevant continuous pain relief to horses.

YEARS: 2022-2023 TOTAL- \$ 32,105

Pharmacokinetics of Oral Mycophenolate Mofetil in Horses

The Ohio State University, Principal Investigator: Gwendolen Lorch

CO-PIs: Riley Thompson, Christianne Magee, Gerrit Bouma,

Budhan Pukazhenti (Smithsonian Cons. Bio)

This proposal will evaluate the pharmacokinetics of orally administered mycophenolate mofetil as a safe, effective and inexpensive immunosuppressant drug for management of equine immune-mediated.

Year: 2022 TOTAL -\$ 65,029

Mitigation of Equine Recurrent Uveitis Through SOCS

University of Florida, Principal Investigator: Joseph Larkin

CO-PIs: Wesley Smith, Sonal Tuli, Daniel Gibson, Caryn Plummer, Jorge Hernandez

This project seeks to design a topical eye drop, using a natural protein, which helps to prevent pain and blindness associated with equine recurrent uveitis.

Years: 2021-2022 TOTAL - \$ 150,610

[Predicting Exercising Arrhythmias With Resting ECGS](#)

University of Minnesota, *Principal Investigator: Molly McCue*

CO-PIs: S. Durward-Akhurst, Anna Lytle, K Jeevaratnam- University of Surrey, C Marr, Rosssdales Vet Surgeons

This project will use at rest ECGs to identify horses with irregular heart rhythms at exercise that can cause sudden cardiac death (SCD), allowing for increased monitoring and improved understanding of SCD.

Years: 2021-2022 TOTAL - \$ 119,477

[Thoroughbred Sales Radiology-Ultrasonography Study](#)

Colorado State University, *Principal Investigator: C. Wayne McIlwraith*

Co-PIs: Chris Kawcak, Frances Peat, David Frisbie, Kurt Selberg, Jeffrey Berk, EQ Med Associates- KY

This study was designed to improve the industry's understanding of the significance of sesamoiditis, ultrasonographic suspensory branch changes, and stifle lucencies in sales yearlings and two-year-olds.

Year: 2018-2019 TOTAL - \$143,624

[Unraveling Complex Traits by Defining Genome Function 2](#)

University of California- Davis, *Principal Investigator: Carrie Finno*

Co-PIs: Rebecca Bellone, Nicole Kingsley, Erin Burns, Ted Kalbfleisch (UN of Louisville), Jessica Peterson, (UN of Nebraska)

This project is designed to create an atlas of gene regulation in the horse.

Year: 2018-2019 TOTAL - \$199,990

[Novel Analgesic Combination in Horses Part II](#)

University of Minnesota, *Principal Investigator: Alonso Guedes*

Co-PIs: Troy Trumble; Prathibha Mangedarage

A study to develop a medication strategy for joint inflammation/pain to provide pain relief as well as help protect the joint cartilage from damage caused by chemical mediators of inflammation.

Year: 2018 TOTAL - \$69,130

[Predicting the Risk of Equine Fatal Injury During Racing](#)

University of Glasgow, *Principal Investigator: Tim D. Parkin*

Co-PI: Stamatis Georgopoulos

The project used the Equine Injury Database (EID) to better predict and identify horses at greatest risk of fatal injury during racing and provide measures to further reduce the number of horses dying on North American racetracks.

Years: 2017- 2018 TOTAL - \$83,360

Unraveling Complex Traits By Defining Genome Function

University of California, Davis, *Principal Investigator: Carrie Finno*

Co-PIs: Jessica Peterson; Rebecca Bellone; Erin Burns; Katerine Hilburger; James MacLeod (UK); Ted Kalbfleisch (U of Louisville); Sara Nilson (U of Nebraska)

This proposal was designed to define the critical next step to understand underlying mechanisms of disease by developing a database of tissue– specific gene expression and regulation in the healthy adult horse.

Year: 2016-2017 TOTAL - \$199,177

Novel Analgesic Combination In Horses Part I

University of Minnesota, *Principal Investigator: Alonso Guedes*

Co-PIs: Troy Trumble; Christophe Morisseau; Bruce Hammock (UC Davis)

A study of a novel, likely more efficacious and potentially safer approach than currently available options to manage pain in horses.

Year: 2016-2017 TOTAL - \$92,099

Microsphere Encapsulated EPCs and Wound Vascularization

Auburn University, *Principal Investigator: Anne Wooldridge*

Co-PIs: Elizabeth Lipke; Fred Caldwell; Ning Cheng; Randolph Winter

This study reviewed injectable hydrogel microsphere scaffolds containing endothelial progenitor cells for a potential novel therapy to decrease healing time in distal limb wounds in the horse.

Years: 2015-2016 TOTAL - \$76,226

Characterization of Intra–Articular Isoflupredone

University of California – Davis, *Principal Investigator: Heather Knych*

Co-PIs: Michelle Mitchell; Linda Harrison (Willow Oak)

This study was designed to provide valuable information for establishing a threshold concentration and withdrawal time for intra-articular isoflupredone acetate in horses.

Years: 2014-2015 TOTAL - \$90,069

Pharmacodynamic Evaluation of Omeprazole

University of Queensland, *Principal Investigator: Paul Mills*

Co-PIs: Ben Sykes & Katja Sykes (BW Sykes Consultancy)

The aim of this study was to review omeprazole and develop a revised set of treatment recommendations for the treatment of gastric ulcers in the horse.

Years: 2014 TOTAL - \$52,745

Factors Affecting Omeprazole Pharmacokinetics in Horses EPM

University of Queensland, *Principal Investigator: Paul Mills*

Co-PIs: Ben Sykes (BW Sykes Consultancy); C. McGowan (UN of Liverpool/UK)

Year: 2013 TOTAL - \$19,640

Effect of CYP2D Genetic Polymorphisms on Drug Metabolism EPM

University of California- Davis, *Principal Investigator: Heather Knych*
Co-PIs: Carley Corado; Amy Young
Year: 2013 TOTAL –\$81,647

Systemic Effects of Analgesic Combos in Horses

University of Florida, *Principal Investigator: Linda Christine Sanchez*
Co-PIs: Johanna R. Effenbein; Robert MacKay; Sheilah Robertson
Years: 2010-2011 TOTAL - \$64,219

Ethyl Pyruvate & Endotoxemia in Horses

Michigan State University, *Principal Investigator: Susan Holcombe*
Co-PIs: Vanessa Cook; Andrew Brown; Eric Schroeder; Lorraine Sordillo
Year: 2010 TOTAL - \$63,040

Pharmacokinetics/Pharmacodynamics of Quinapril

North Carolina State University, *Principal Investigator: Jennifer Davis*
Co-PIs: Babetta Breuhaus; Karin Kruger
Year: 2010 TOTAL - \$31,553

Hydrocortisone Replacement Therapy in Septic Foals

University of Georgia, *Principal Investigator: Michelle Henry Barton/*
Co-PIs: Kelsey Hart; Amanda Martabano House; Michel Vandenplas; Steve Giguère;
Julia Flaminio (Cornell)
Years: 2008-2009 TOTAL - \$49,306

Effect of Flunizin on Lidocaine Plasma Protein Binding

Kansas State, *Principal Investigator: Butch KuKanich*
Year: 2008 TOTAL - \$8,217

Calcium/Magnesium & Hormones in Septic Foals

The Ohio State University, *Principal Investigator: Ramiro Toribio*
Years: 2007-2008 TOTAL - \$37,600

Tramadol in Horses

Auburn University, *Principal Investigator: Allison Stewart*
Year: 2007 TOTAL - \$20,000

Effect of Compounding and Storage on Drug Stability

North Carolina State University, *Principal Investigator: Mark Papich*
Year: 2006 TOTAL - \$14,152

Development of a Maintenance Fluid for Horses

Michigan State University, *Principal Investigator: Harold Schott II*

Co-PI: Gary Carlson

Years: 2005-2006 TOTAL - \$109,941

Effect of Fentanyl on Visceral & Somatic Nociception in Horses

University of Florida, *Principal Investigator: Linda Christine Sanchez*

Co-PIs: Cynthia Kollias-Baker; Sheilah Robertson

Year: 2004 TOTAL - \$46,730

Electrical Cardioversion of Atrial Fibrillation in the Horse

University of Guelph, *Principal Investigator: P. W. Physick-Sheard*

Years: 2002-2003 TOTAL - \$8,394