

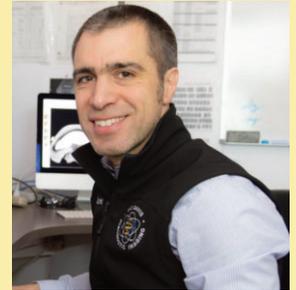


Development of PET Technology for the Equine Athlete

Dr. Mathieu Spriet is an Associate Professor of Diagnostic Imaging at the School of Veterinary Medicine at the University of California, Davis and faculty member since 2007. He obtained his DVM degree from the National Veterinary School of Lyon (France) in 2002 and a Master Degree from the University of Montreal (Canada) in 2004.

He has been a diplomate of the American College of Veterinary Radiology and the European College of Veterinary Diagnostic Imaging since 2007, after completing his radiology residency at the University of Pennsylvania.

His research is focused on musculoskeletal imaging in horses, with over 50 publications in peer-reviewed journals. Grayson has assisted in the funding of his research on positron emission tomography (PET) in horses, developing both research and clinical applications.



Dr. Mathieu Spriet

In 2015, Grayson-Jockey Club Research Foundation funded the first research project that performed positron emission tomography (PET) scans on equine athletes. Grayson followed that up with additional research funding in 2019. Now, this cutting-edge research will assist vets coast to coast in identifying lameness problems that are hard to locate.



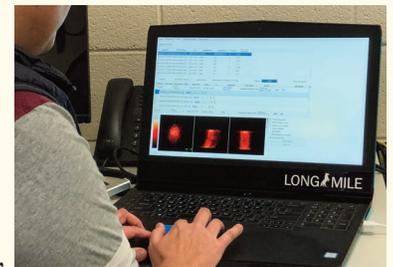
The 2015 study validated the safety and practicality of a PET scanner specifically designed to image the distal limb in standing horses. After several years and improvements, the PET scanner has an openable ring of detectors specifically designed to image the distal limb of standing horses. The goals of this prospective, preclinical, experimental, methods comparison study were to validate the safety of the scanner, assess image quality, and optimize scanning protocols.

The PET device is now being manufactured and installed at several clinics. Rood & Riddle Equine Hospital announced March 16 the installation of a PET scanner at its Lexington location. Rood & Riddle is the fourth location for this standing PET scanner for horses globally and is the site of the first installation at a private practice.

"We are excited to introduce this new technology for our patients," said Dr. Katherine Garrett, Rood & Riddle's director of Imaging. "PET scans will increase our ability to detect bony injury in horses, which will hopefully lead to improved outcomes."

"Grayson has been a longtime supporter of research on the efficacy of PET scans in diagnosing injuries in horses," said Jamie Haydon, president of Grayson. "We are proud to have contributed to the development of a technology that will help countless horses at Rood & Riddle and other clinics for years to come."

Along with Rood & Riddle, PET scanners have been installed at Penn Vet's New Bolton Center in Kennett Square, Pennsylvania; Santa Anita Park in Arcadia, California, under the management of the Southern California Equine Foundation; the World Equestrian Center in Ocala, Florida, under the management of the University of Florida Veterinary College of Medicine; and the University of Melbourne Equine Centre in Werribee, Australia, in partnership with Racing Victoria. ❤️



[Click to review our current and past funded research projects](#)

10th Welfare & Safety Of The Racehorse Summit Focuses on the Impact of Data

The 10th Welfare and Safety of the Racehorse Summit, held June 22 at Keeneland, featured a range of presentations on the progress of the racing industry to promote the health of its equine and human athletes while focusing on the significance of data in facilitating these gains. Co-hosted by The Jockey Club and Grayson-Jockey Club Research Foundation it was emceed by Annise Montplaisir, equine education coordinator of the Kentucky Equine Education Project Foundation and president of Amplify Horse Racing.

Dr. Tim Parkin, head of Bristol Veterinary School, kicked off presentations with an update on the Equine Injury Database (EID). He reviewed findings from the database since it began collecting data in 2009, including a 31.5% drop in the rate of fatalities. He discussed the spike in 2-year-old fatalities in 2020, hypothesizing that this trend may have been caused by disruptions in training at the height of the COVID-19 pandemic.

Dr. Larry Bramlage of Rood & Riddle Equine Hospital presented the importance of training 2-year-olds. According to Bramlage, bones are dynamic organs that strengthen and remodel in response to exercise. “Bone trains to the level of work, not the amount. The cardiovascular system trains to the amount of work,” Bramlage said.

Dr. Dionne Benson, chief veterinary officer of 1/ST Racing, talked about the changes implemented at 1/ST tracks following the highly publicized rash of breakdowns at Santa Anita Park in 2019. Among the protocols are an increased veterinary presence at the tracks, stricter medication rules during racing and training, additional monitoring on race day, out-of-competition testing, and required registration of a horse before participating in a timed workout.

Dr. Ryan Carpenter, a practicing surgeon at Equine Medical Center in California, described a program whereby racehorses that suffer complex musculoskeletal injuries on the track are given the opportunity to undergo surgery to repair their fractures if there is a favorable prognosis for them to ultimately become pasture-sound.

Joseph Appelbaum, president of the New York Thoroughbred Horsemen’s Association, moderated a panel on wearable technologies for horses. One panelist, Valentin Rapin, managing director and co-founder of Arioneo, described sensors that horses can wear during training that track metrics such as heart rate. Will Duff Gordon, the chief executive officer of Total Performance Data (TPD), talked about tracking technology and the potential benefits to gamblers. Dr. Scott Palmer, equine medical director of the New York State Gaming Commission, reviewed findings from a case study using StrideSAFE, a device that detects abnormalities in a

horse’s gait and may have use in the future for detecting injuries before visible lameness develops.

Montplaisir moderated a youth panel of individuals working in the Thoroughbred industry or pursuing a career in the industry. The group consisted of Hayley Amoss, manager, communications & social media, Breeders’ Cup; Hallie Hardy, executive director, Horse Country; Dr. Ferrin Peterson, jockey and veterinarian; Eric Resendiz, student at Bluegrass Community & Technical College and former Amplify Horse Racing mentee; and Deja Robinson, pre-vet student. They highlighted the impact of connecting with people on a personal level, either in person or through social media.

The summit included a regulatory panel that was moderated by Dr. Mary Scollay-Ward, executive director and chief operating officer of the Racing Medication & Testing Consortium. She was joined by Dr. Will Farmer, equine medical director, Churchill Downs Inc.; Dr. Jaclyn Bradley, Prairie Meadows; and Dr. Lynn Hovda, chief commission veterinarian, Minnesota Racing Commission. The group offered their perspectives on the experience of a regulatory veterinarian, what they’ve learned, and challenges in the role.

Dr. Mathieu Spriet, professor of diagnostic imaging at University of California, Davis, presented findings from the use of positron emission tomography (PET) to evaluate fetlocks. The data demonstrated the efficacy of this technology for monitoring horses for injury and tracking healing.

Dr. Jerry Hill, chief medical adviser for the British Horseracing Authority (BHA), detailed a strategy by the BHA to improve the physical and mental wellbeing of jockeys by raising weights, prioritizing nutrition, and revamping areas at the racetracks that are dedicated to riders on race day.

Dr. Wayne McIlwraith, founding director of the Orthopaedic Research Center at Colorado State University, talked about the history of surface testing and the Racing Surfaces Testing Laboratory.

The summit concluded with presentations from Chris Dobbins, senior vice president of InCompass, and Dr. Stuart Brown, vice president of equine safety at Keeneland. Dobbins summarized the programs that InCompass offers to tracks to assist them in collecting and organizing data that is used to promote safety and welfare. Brown reviewed Keeneland’s safety protocols and how InCompass software provides Brown with important data for flagging horses that are at increased risk of injury.

Review video replays and resources to the 2022 and past summits:
<https://www.grayson-jockeyclub.org/WelfareSafety>



An Interview With a Pony Club Research Fair Participant

Grayson Jockey Club Research Foundation sponsors the Annual United States Pony Club Research Fair. Holly White, the Director of Development interviewed Charlotte Hansen. Charlotte is a C-1 level pony clubber from Hinkson Valley Pony Club in the Midwest Region whom participated in the 2022 Equine Research Fair. Her project this year studied composting and if using manure would help plants grow better in soil mixed with compost.



First of all Charlotte wanted to personally express her gratitude to Grayson and our Board Members for the support of the United States Pony Club and Research Fair:- *"Thank you so much for the support for the Research Fair. I have learned so much working on my projects and want to continue to do research and present each year going forward!"* Thank You, Charlotte.



Can you tell us a little about your pony?

My Tommy (Sir Thomas) is a 15-year-old 14.2 hand chestnut Welsh X Paint gelding. I met him many years ago and have owned him for 2 years. We jumped for about 3 years, then moved to dressage. One year ago I began dressage and we have been

learning everything together step by step. He now lives on our farm and I love him more than anything, I look forward to seeing him every day and he always makes me feel better if I'm feeling down. He always calls to me when he sees me in the field and warms my heart with every nicker.

What riding discipline do you enjoy competing in?

I enjoy competing in dressage with Tommy and I love going on hacks around our farm and on trails. We also love to do any type of Pony Club rally: quiz rally in the winter, games in the spring and fall, and Regional Mega Rally in the summer. Last year I attended the National Pony Club Championships for Quiz Competition. Tommy and I also gallop in the fields around our farm and deliver eggs to our neighbors in every type of weather.

What future aspirations do you have with your pony and what do you hope to do for a career eventually?

I want to continue dressage and teaching my pony. When I grow up I would like to go to medical school to become an ophthalmologist.



Case Follow-up

A year ago we highlighted a 3 month old colt who had a serious case of *Rhodococcus equi*, requiring hospitalization. Dr. Rana Bozorgmanesh at the Hagyard Equine Medical Institute treated the colt and had serious concerns he might not be able to overcome this infection.

Through the care of Phoenix Farm, Dr. Michael Hughes, and Dr. Bozorgmanesh's oversight, the colt made a full recovery last year. Many of the protocols for his treatment came through previous years of research funded by



Grayson and foundation continues to fund projects aimed at creating a vaccine for prevention.

Dr. Bozorgmanesh paid her former patient a visit and we think you will agree he is a happy, healthy colt.

2022 Educational and Sponsorship



United States Pony Club Research Fair • January



Land Rover Kentucky Three Day Event
April • Kentucky Horse Park, Lexington KY



The Premier Sires Show
May 27-June 4 • Kentucky Horse Park Lexington, KY



Junior League Charity Show
July 11-16 • Kentucky Horse Park • Lexington KY



Rood and Riddle Hats Off Day
July 30 • Kentucky Horse Park • Lexington, KY



USHJA Green Hunter Incentive National Championships
August 16-18 • Kentucky Horse Park • Lexington KY



US Equestrian - US Dressage Festival of Champions
August 22-August 28 • Lamplight Equestrian Center • Wayne, IL

Sallie B. Wheeler, USEF, USHJA Hunter Breeding National Championship
East Coast at Virginia Young Horse Festival
August 27 • Virginia Horse Center • Lexington, VA



USHJA Young Jumper Championships
September 7-11 • Traverse City, MI

Sallie B. Wheeler, USEF, USHJA Hunter Breeding National Championships Central at Texas Rose Classic
September 14-18 • Texas Rose Horse Park • Tyler, TX



All American Quarter Horse Congress
September 25-October 23 • Ohio Expo Center • Columbus OH



TIP Championships:2022 T.I.P. Championships at Stable View & East Coast Dressage Championships
October 6-9 • Stable View • Aiken, SC

Western Championships at the 2022 Thoroughbred Makeover & Central Dressage Championships
October 12-15 • Kentucky Horse Park • Lexington, KY



Retired Racehorse Project
October 12-15 • Kentucky Horse Park • Lexington, KY



National Horse Show
October 26-November 6 • Kentucky Horse Park • Lexington, KY



USDF - US Dressage Finals
November 10 -13 • Kentucky Horse Park • Lexington, KY



United States Eventing Association Annual Meeting and Convention
December 7-11 • Savannah, GA



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