

Zweig

From the Harry M. Zweig Memorial Fund for Equine Research at the Cornell University College of Veterinary Medicine



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Cornell Equine advancing research, training and community for horse health

By *Olivia Hall*

A new Cornell initiative aims to make a positive impact on horses worldwide. Cornell Equine is a university-wide collaboration between equine researchers, educators, practitioners and athletes at the College of Veterinary Medicine (CVM), the College of Agriculture and Life Sciences (CALS) and Cornell University Athletics and was launched at the end of 2024.

“We’ve got so many fantastic equine activities going on all over campus, and we felt that we could make even more significant advances by having these different communities working together,” said Dr. Mandi de

Mestre, Cornell Equine’s inaugural director as well as the Dorothy Havemeyer McConville Professor of Equine Medicine and director of the Baker Institute for Animal Health. “What makes us unique is that we’re a cross-campus collaboration – and one that reaches even beyond the university through Cornell Cooperative Extension (CCE), which gives us a connection straight to the everyday horse owner.”

The initiative builds on Cornell’s legacy of innovative scientific research and comprehensive infrastructure for the study and care of horses. The university’s state-of-the-art facilities include the Cornell University Hospital for Animals in Ithaca, Cornell Ruffian Equine Specialists



Photo: Carol Jennings/CVM

on Long Island and a large veterinary diagnostic center serving horses worldwide. The recently remodeled Cornell Equine Park, established in 1973, serves as a hands-on learning lab for veterinary students and researchers on all things equine. In addition, Cornell University Athletics offers two varsity-level competitive equine sports, housing the women's equestrian and the men's and women's polo teams in the Oxley Equestrian Center.

Cornell Equine's wide-ranging steering committee hopes these strengths will form the foundation of a vibrant horse-centered community that builds awareness of equine activities on campus and enriches the experience of students working and competing with horses. By fostering strong social and educational connections around a shared passion for horses, the initiative aims to strengthen the pipeline for future equine veterinarians and industry professionals – critical in a field facing workforce shortages.

“Beyond attracting talent, we want to actively mentor individuals throughout different stages of their careers in the equine industry and highlight the rewarding nature of supporting horse health,” de Mestre explained. This summer, for example, a project through CCE will pair equine-interested high school students with Cornell faculty mentors. As Cornell Equine grows, de Mestre envisions expanding mentorship opportunities for high school and undergraduate students and offering additional educational programming.

Cornell Equine will also serve as a hub for multidisciplinary collaborations that uphold the university's track record of groundbreaking discoveries in equine health, including a pivotal role in sequencing the whole horse genome. Much of this work has been supported by the Harry M. Zweig Memorial Fund for Equine Research. The internal grants program continues to seed ongoing research on such topics as metabolic disease and infectious diseases – many with implications for human health.

“We are also exploring ways to collaborate with the equine community to address new questions and advance our understanding through an open, two-way dialogue,” said Lindsay Goodale, lecturer in animal science in CALS and a member of the Cornell Equine steering committee.

In one direction, that means listening to horse owners, veterinarians and other stakeholders to better understand and address their questions and concerns. In the other, Cornell Equine will help researchers actively communicate their evidence-based knowledge to the public through newsletters, seminars and symposia.

“Cornell has a deep-rooted tradition of excellence in equine research, education and clinical care,” said Lorin D. Warnick, D.V.M., Ph.D. '94, the Austin O. Hooey Dean of Veterinary Medicine. “With Cornell Equine, we are investing in the future – building a stronger community, advancing equine well-being and supporting the professionals who dedicate their lives to these animals.”

Support to help launch and sustain Cornell Equine has been provided by generous donors. The program invites others interested in investing in our ongoing clinical, research and engagement efforts to contact Dr. Mandi de Mestre (amm43@cornell.edu) or Alison Smith, director of development (ars1@cornell.edu). ●



Dr. Callum Donnelly at the Equine park. Photo: Carol Jennings/CVM.

Introducing Dr. Callum Donnelly, the Harry M. Zweig Assistant Professor

Department of Clinical Sciences, Section of Theriogenology, Cornell University Hospital for Animals

By Melanie Greaver Cordova

Dr. Callum Donnelly is a graduate of Charles Sturt University School of Veterinary Medicine in Australia and has subsequently become one of only two double-boarded specialists in reproductive and large animal internal medicine. His Ph.D. from the University of California-Davis focused on implementing precision and genomic medicine in horses, known as the Pioneer 100 Horse Health Project.

Dr. Donnelly is currently an assistant professor of reproductive medicine in the Department of Clinical Sciences. He has had a lifelong connection to horses, with much of his early life spent on horseback assisting in the running of his family's cattle farm in Australia.

Q: Horses, what was your initial spark?

A: While I have never known a time where I have not been around horses, I did not envision that they would become the focus of my career as I was initially more interested in cattle. My first introduction into research with horses came from Prof. Sharanne Raidal, during my final years of veterinary school.

Prof. Raidal's work has had a profound impact on equine health and welfare from foals to racehorses and everything in between. Under her guidance, I developed a true passion for equine research, where the core purpose is always to benefit horse health and welfare and deepen our understanding of these special creatures. I will always be grateful for the path that Prof. Raidal helped set me on.

Q: What is your role or interaction with trainees?

A: I am lucky to interact with trainees across all levels — undergraduates, Ph.D. students, veterinary students and clinical residents. Helping guide my trainees to their

Research focus

The Donnelly lab has three primary themes:

1. Molecular drivers of equine insulin dysregulation and how these mechanisms interact with reproductive function.
2. Equine maternal-fetal medicine, with an emphasis on cardiometabolic function of the mare and developing fetus during pregnancy.
3. The development of molecular diagnostics for metabolic and pregnancy related conditions.



Photo: Carol Jennings/CVM



Photos: Carol Jennings/CVM

own successes is one of the most rewarding aspects of my career, whether that be mastering a molecular technique, making an astute call on a clinical case, or delving confidently into the unknown.

Q: As a researcher and veterinarian, what kinds of things do you find rewarding?

A: I don't think there will ever be a time where I tire of bringing new life into the world. No matter how tired, cold or covered in goo I am, there really is nothing like helping a foal in those first moments of life. That I get to do this while also working to further our knowledge of horse health and disease is a bonus.

Q: Looking ahead, what are some of your future goals as the Harry M. Zweig Assistant Professor?

A: I am honored to be the recipient of the Harry M. Zweig Assistant Professorship. As the Zweig Assistant Professor, my primary goal will be to promote equine health, both in practice and in discovery. Importantly, this position should send a clear message to our veterinary trainees that careers in equine health are both rewarding and sustainable. Our future equine health trainees stand on a precipice. It is my hope that through my actions and advocacy in this position, I can play a part in safeguarding the future of equine health within veterinary medicine. ●

Harry M. Zweig Memorial Fund for Equine Research Awards

New

- \$50,000 to **Jordyn Boesch** for "Administration of epidural ropivacaine for the treatment of hindlimb pain."
- \$100,000 to **Arunika Das** for "Identifying genetic variants underlying equine early pregnancy loss."
- \$99,090 to **Callum Donnelly** for "Mechanisms of insulin regulation in equine pregnancy."
- \$42,596 to **Jessica Hayward** for "Determining the genetic risk factors for autopsy-negative exercise-associated sudden cardiac death in racing thoroughbreds."

- \$100,000 to **Katharyn Mitchell** for "Arrhythmia substrate characterization by 3D electro-anatomical mapping in horses with mitral valve prolapse."

Continued

- \$99,920 to **Amanda de Mestre** for "Copy number changes in the equine genome incompatible with life."
- \$30,982 to **Amy Todd-Donato** for "Comparative imaging for the diagnosis and monitoring of arthroscopically induced meniscal injury in horses."
- \$82,181 to **Bettina Wagner** for "Unraveling T-cell immunity for EHV-1 protection."

Cornell leads the way at annual equine conference

By *Lauren Cahoon Roberts*

The annual meeting of the American Association of Equine Practitioners, held last month in Orlando, Florida, featured key talks and recognitions from Cornell University College of Veterinary Medicine (CVM) faculty and students as well as Cornell-trained equine practitioners and researchers, exemplifying the impact of the CVM on the field of equine health.

"Cornell is incredibly active in providing leadership in the equine industry as marked by their prominent roles at the top equine conference in the country and largest in the world," says Dr. Mandi de Mestre, the Dorothy Havemeyer McConville Professor of Equine Medicine and director of Cornell Equine.

The keynote speaker was Richard Lesser '77, D.V.M. '81, whose talk, "Live Your Whole Life," shared stories of his life and career, highlighting the crucial balance veterinarians must achieve between supporting their patients and colleagues and attending to their own needs. This side of a veterinarian's life is often neglected, and he had the audience captivated both by his important messages and his exceptional story telling.

Other Cornellians led talks throughout the conference, including CVM alumna and AAEP immediate past-president Katie Garrett; D.V.M. '03, alumna Kyla Ortved, Ph.D. '14, who did the famous Kester News Hour; Dr. Kelly Knicklebein, assistant professor of ophthalmology; Dr. Katharyn Mitchell, assistant professor in the Department of Clinical Sciences and section chief of large animal internal medicine; and Dr. Gillian Perkins, clinical professor and associate director of the Cornell University Hospital for Animals, along with Cornell resident Dr. Pamela Velarde.

Numerous Cornellians attended the event, including Amy Johnson, D.V.M. '03; Liara Gonzolez, D.V.M. '06; and Nathaniel White, D.V.M. '71, a prominent member of the AAEP, who spoke in the general session. Cornell veterinary students were also in attendance, including Hadley Rahael, Class of 2027; Lucia Younger '21, Class

of 2026; Ella Bellin, Class of 2026; and Alexandria Davis, Class of 2027, who presented her poster on emergency equine dystocia and congenital malformation.

Finally, the most prestigious recognition at the event, the Frank J. Milne State-of-the-Art Lecture, was given by Lisa Fortier, Ph.D.'98, the James Law Professor of Surgery. Her talk, outlining her successful career as an equine researcher and clinician was entitled "The Equine Community Leading the Way in Orthobiologics," discussed the cutting-edge regenerative medicine



Lisa Fortier, Ph.D. '98, the James Law Professor of Surgery. Photo: Platinum Performance, LLC./Provided

subdiscipline, and how it can be used to restore biological function." She was introduced by Lauren Schnabel, D.V.M. '04, Ph.D. '13, professor of equine orthopedic surgery at NC State University.

"It's exciting to see our researchers and practitioners setting the standard for care and discovery in equine health," says de Mestre. ●

Cornell veterinary alumni in the heart of the horse world

By Lauren Cahoon Roberts

Lexington, Kentucky, is the pinnacle of the Thoroughbred world. A place where equine enthusiasts breed, raise, sell and race horses — and demand outstanding veterinary care.

Cornell University College of Veterinary Medicine (CVM) alumni are there to meet that need. Many CVM-trained veterinarians hold influential roles in Lexington's equine industry and are shaping the standard of care in the region.

The legacy veterinarian

Luke Hagyard Fallon, D.V.M. '96, grew up in Lexington, helping his father, Edward Hagyard Fallon, D.V.M. '56, serve the equine community at the Hagyard Equine Medical Institute, a renowned practice in Lexington with over 60 veterinarians that will soon mark 150 years of service in 2026.



As a fifth-generation veterinarian, Fallon knew early on that he would work with horses and be a part of the next generation of veterinarians at Hagyard. Now, as medical director of Hagyard and an expert in reproduction work and general herd health, Fallon himself is paying it forward and mentoring veterinary students and interns.

At Cornell, Fallon was trained by many Cornell legends, including Robert Hillman, D.V.M. '55, a large animal theriogenologist ("A prince of a man and a great professor"), Francis Fox, D.V.M. '45, a famed large animal clinician whose advice to "never let the lab get in the way of a good clinical examination — go see, hear and smell the environment where the animal is living," still stays with Fallon to this day.

Some of his favorite memories include attending the 2:30 a.m. neurology rounds with Alexander de Lahunta, D.V.M. '58, Ph.D. '63, the emeritus James Law Professor of Anatomy ("Just a legend, a gentleman and a scholar"),

and Hillman's poisonous plant class.

"Cornell just gives a great all-around education, and I was fortunate to be exposed to some of the best minds in veterinary medicine," says Fallon.

The diagnostic imaging ace

Katie Garrett, D.V.M. '03, is a shareholder and director of diagnostic imaging at Rood and Riddle Equine Hospital in Lexington. "I was very fortunate to have received the training at Cornell that I did," she says, citing her formal coursework as well as her time as an emergency surgery technician at the large animal hospital during her first year.



"Not only was it nice to get some clinical experience, but it also provided a way to meet some of the clinicians outside of the classroom and see how they practiced medicine."

After Cornell, Garrett completed two internships and an equine surgery residency at Rood and Riddle Equine Hospital in Lexington and achieved board certification in the American College of Veterinary Surgeons in 2012. Today, she works as an expert in diagnostic imaging, with an emphasis in musculoskeletal MRI and laryngeal imaging.

"She is extremely well respected for her expertise and integrity," says Dr. Susan Fubini, senior associate dean for academic affairs and professor in large animal surgery at CVM.

Garrett notes that some impactful Cornellian mentors are Fubini as well as Drs. Norm Ducharme, Gillian Perkins and Lisa Fortier, Ph.D. '98. "They are all amazing clinicians, but beyond that, they have contributed to veterinary medicine through research and service as well. They have been fantastic role models for me," Garrett says.

Garrett was named president of the American Association of Equine Practitioners (AAEP) in 2024,

where she has served on the board of directors and chaired both the Educational Programs Committee and Member Engagement Committee.

The orthopedic expert

Alan Ruggles, D.V.M. '87, specializes in orthopedic surgery and lameness and works as a partner at Rood and Riddle, where he provides care for racing, sport, pleasure and breeding equines. He notes that the equine industry in Lexington is "A fast-paced, high-stakes busy place to work, and certainly the knowledge and confidence you gain from a Cornell education helps prepare you for this."

Ruggles also sees Cornell's influence in shaping his professional journey. "My training at Cornell was very comprehensive," says Ruggles. "It helped me not only prepare for a career as an equine orthopedic surgeon, but also gave me a good background in medicine, neurology, etc. which has helped me throughout my career."

"Dr. Ruggles is well known for his surgical expertise, training of residents, and critical involvement in national and international orthopedic societies," says Fubini.

After gaining his D.V.M. from Cornell, Ruggles completed an internship and residency in large animal surgery at New Bolton Center at the University of Pennsylvania. He remained at New Bolton Center as a lecturer in surgery until joining the faculty at The Ohio State University in 1992, and moved to Rood and Riddle in Lexington in 1999. He is active in the American College of Veterinary Surgeons (ACVS) and AOVET (a nonprofit organization of veterinary surgery advancements), where he has been co-chairman of the annual AO Equine Courses on Fracture Repair since 1996.



The infectious disease investigator

Brett Sponseller, D.V.M. '94, serves as director of the Maxwell H. Gluck Equine Research Center and chair of the Department of Veterinary Science at the University

of Kentucky in Lexington. "Cornell gave me a great education," he says. "It was broad-based, and took a comparative medicine approach. As someone who was equine-focused, it forced me to broaden my scope, and that had real value."

After graduating from Cornell, Sponseller completed an internship with Equine Medical Associates in Edmond, Oklahoma, and a residency in large animal internal medicine (equine focused) at the University of California, Davis. He earned his Ph.D. in molecular, cellular and developmental biology from Iowa State University (ISU), where he went on to co-found the equine internal medicine service.

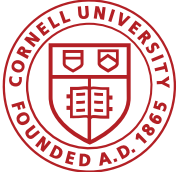
Today, Sponseller is a member of the American Society for Virology and the American Association of Equine Practitioners and has authored several peer-reviewed journals and the textbook "Equine Infectious Diseases." In addition to leading the Gluck Equine Research Center, Sponseller studies equine infectious diseases, including equine infectious anemia virus, and equine herpesvirus-1.

While at Iowa State University, he taught the next generation of veterinary students didactic equine internal medicine, veterinary virology and equine internal medicine. He lists several Cornell faculty members as his influences, including Drs. Ronald Minor, de Lahunta, John Cummings and more.

"They developed and enhanced my curiosity," Sponseller says. "And it really set the groundwork for being a good clinician and researcher. I hope that, in a way, what I'm doing kind of honors that."

No matter their discipline, Cornell veterinary alumni are powerhouses in the Lexington, Kentucky region, working to improve the health and well-being of horses in the heart of the equine world and beyond.





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The Harry M. Zweig Memorial Fund for Equine Research honors the late Dr. Harry M. Zweig, a distinguished veterinarian, and his numerous contributions to the state's equine industry. In 1979, by amendment to the pari-mutuel revenue laws, the New York State Legislature created the fund to promote equine research at the College of Veterinary Medicine at Cornell University. The Harry M. Zweig Committee is established for the purpose of administering the fund and is composed of individuals in specified state agencies and equine industry positions and others who represent equine breeders, owners, trainers and veterinarians.

Visit us online

bit.ly/ZweigFund

Our site provides information on the projects and publications resulting from the Zweig Memorial Fund, and demonstrates the objectives of the Fund in promoting equine health in the racing industry. The Zweig News Capsule is published twice a year, and can be downloaded at bit.ly/ZweigNews. Please encourage other equine enthusiasts to visit the site.